

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Ambrettolide G 28645-51-4

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Ambrettolide G; CAS: 28645-51-4

Other identifiers: None

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Classification under Regulation (EC) No 1272/2008

Class and category of danger: This material does not meet the criteria for classification under Regulation (EC) No 1272/2008.

2.2 Label elements

Classification under Regulation (EC) No 1272/2008

Signal word: None

Hazard statements: None

M factor: None

Supplemental Information: None

Precautionary statements: None

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Product: Ambrettolide G 28645-51-4

Version: 1

Pictograms: None

Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Ambrettolide G; CAS: 28645-51-4

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

Skin exposure: Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.

Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

None expected, see Section 4.1 for further information.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

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6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

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Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	> 200 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

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10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This material does not meet the criteria for classification for health hazards under Regulation (EC) No 1272/2008.

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:	Not available
12.2 Persistence and degradability:	Not available
12.3 Bioaccumulative potential:	Not available
12.4 Mobility in soil:	Not available
12.5 Results of PBT and vPvB assessment:	
This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.	
12.6 Other adverse effects:	Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

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Section 14. Transport information

14.1 UN number: Not classified
14.2 UN Proper Shipping Name: -
14.3 Transport hazard class(es): Not classified
Sub Risk: Not classified
14.4. Packing Group: Not classified
14.5 Environmental hazards: Not environmentally hazardous for transport
14.6 Special precautions for user: None additional
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with 29 CFR 1910.1200

Product: Ambroxan 10% in Alcohol ac-460

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Ambroxan 10% in Alcohol ac-460

Other identifiers: None

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: +1 (831) 346 7234

1.4 Emergency telephone number

Emergency phone: +1 (831) 346 7234

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Flammable Liquid, Hazard Category 2
Eye Damage / Irritation Category 2
H225, Highly flammable liquid and vapour.
H319, Causes serious eye irritation.

2.2 Label elements

Signal word: Danger

Hazard statements: H225, Highly flammable liquid and vapour.
H319, Causes serious eye irritation.

Precautionary statements: P210, Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P233, Keep container tightly closed.
P240, Ground/bond container and receiving equipment.
P241, Use explosion-proof electrical, ventilating and lighting equipment.
P242, Use only non-sparking tools.
P243, Take precautionary measures against static discharge.

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P264, Wash hands and other contacted skin thoroughly after handling.

P280, Wear protective gloves/eye protection/face protection.

P303/361/353, IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337/313, If eye irritation persists: Get medical advice/attention.

P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.

P403/235, Store in a well-ventilated place. Keep cool.

P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



Other hazards: None

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	EC	%	GHS Classification
Ethyl alcohol	64-17-5	200-578-6	50-100%	FL 2-EDI 2A;H225-H319

The exact percentage concentrations of components are being withheld as a trade secret.

Substances with Community workplace exposure limits, not listed above:

Name	CAS	EC	%
Ethyl alcohol	64-17-5	200-578-6	90.00%

Section 4. First-aid measures

4.1 Description of first aid measures

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking.

7.2 Conditions for safe storage, including any incompatibilities:

Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

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7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits:

Ingredient	CAS	EC	Description	ppm	mg/m ³	Reference
Ethyl alcohol	64-17-5	200-578-6	Long-term exposure limit (8-hour TWA reference period)	-	-	-
			Short-term exposure limit (15-minute reference period)	-	-	-

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Ensure adequate and ongoing ventilation is maintained in order to prevent build up of excessive vapour and to ensure occupational exposure limits are adhered to. If appropriate, and depending on your patterns and volumes of use, the following engineering controls may be required as additional protective measures: a) Isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant. b) Employ the use of Personal protective equipment - an approved, properly fitted respirator with organic vapour cartridges or canisters and particulate filters. c) Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. d) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Not determined

Odour: Not determined

pH: Not determined

Initial boiling point / range: Not determined

Flash point: < 23 °C

Vapour pressure: Not determined

Relative density: Not determined

Solubility(ies): Not determined

9.2 Other information: None available

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Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in 29 CFR 1910.1200.

Causes serious eye irritation.

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity: Not Applicable

Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity: Not Applicable

Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity: Not Available

Inhalation Route: Not Available

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity: Not available

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

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12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: UN1169
14.2 UN Proper Shipping Name: EXTRACTS, AROMATIC, LIQUID
14.3 Transport hazard class(es): 3
Sub Risk: -
14.4. Packing Group: II
14.5 Environmental hazards: Not environmentally hazardous for transport
14.6 Special precautions for user: None additional
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not applicable

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Concentration % Limits: EDI 2=11.11%

Total Fractional Values: EDI 2=9.00

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
EDI 2A	Eye Damage / Irritation Category 2A
FL 2	Flammable Liquid, Hazard Category 2

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Product: Ambroxan 10% in Alcohol ac-460

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H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P264	Wash hands and other contacted skin thoroughly after handling.
P280	Wear protective gloves/eye protection/face protection.
P303/361/353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337/313	If eye irritation persists: Get medical advice/attention.
P370/378	In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product : AURALVA BHT

Print Date : 02/06/2022

Page : 1 (9)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : AURALVA BHT
SDS Number : 300000839899
Product Use Description : Fragrance Ingredient

Company : IFF Inc.
600 Highway 36
Hazlet NJ 07730

Telephone : (732) 264-4500
Telefax : (732) 315-2551
Emergency telephone : +1 800-424 9300

SECTION 2 HAZARDS IDENTIFICATION

GHS-Classification

Eye irritation, Category 2A
Skin sensitization, Category 1

GHS-Labeling

Symbol(s) :



Signal Word : Warning

Hazard Statements : H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.

Precautionary Statements : P280: Wear protective gloves/ eye protection/ face protection.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Version : 2

Revision Date : 02/06/2022

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600 Highway 36
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SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product AURALVA BHT

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Carcinogenicity:

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

Component	CAS-No.
Benzoic acid, 2-[(7-hydroxy-3,7-dimethyloctylidene)amino]-, methyl ester	89-43-0
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	128-37-0

SECTION 4. FIRST AID MEASURES

First aid procedures

- Inhalation** : Remove from exposure site to fresh air and keep at rest. If victim is unconscious, remove foreign bodies from the mouth. If victim has stopped breathing, give artificial respiration. Obtain medical advice.
- Skin contact** : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
- Eye contact** : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- Ingestion** : Rinse mouth with water and obtain medical advice.

Notes to physician

- Risks** : May cause an allergic skin reaction.

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600 Highway 24
Billerica MA 01750

IFF Inc.
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Billerica MA 01750



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Causes serious eye irritation.

SECTION 5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point : 201.20 °F (94.00 °C)

Fire fighting

Suitable extinguishing media : Use water spray, dry chemical, carbon dioxide or appropriate foam.

Protective equipment and precautions for firefighters

Special protective equipment for fire-fighters : Wear NIOSH approved self-contained breathing apparatus and full protective clothing when fighting fires involving chemicals. Use water spray to cool containers exposed to fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.

Environmental precautions : Keep away from drains, surface- and groundwater and soil.

Methods for containment /
Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations.

SECTION 7. HANDLING AND STORAGE

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- Handling** : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.
- If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees. Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.
- Advice on protection against fire and explosion** : Keep away from ignition sources and naked flame.
- Requirements for storage areas and containers** : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Engineering measures

- Engineering measures** : Where feasible, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant. Where feasible, use closed systems to transfer and process this material.

Personal protective equipment

- Eye protection** : Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.
- Hand protection** : Avoid skin contact. Use chemically resistant gloves.

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Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

- a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
- b) during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or
- c) if normal operational workplace vapor concentration in the air is increased due to heat ;
- d) during emergencies; or
- e) if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material. To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.

Protective measures : In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung

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disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].

In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".

Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.

The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : liquid
Appearance : VISCOUS, CLEAR LIQUID
Color : yellow
Odor : conforms to standard

Safety data

Flash point : 201.20 °F (94.00 °C)
Vapor pressure : < .01 hPa (< 0.01 kPa)
Note: Calculated
Relative density (20 °C) : 1.0570 - 1.0680

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : Remarks: Direct sources of heat.

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Chemical stability : Remarks: Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

Hazardous decomposition products : Note: Carbon monoxide and unidentified organic compounds may be formed during combustion.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity (Component) : Component: 107-75-5
LD50 Rat
Dose: > 5,000 mg/kg
Remarks: RIFM

Acute dermal toxicity : Acute toxicity estimate
Dose: 4,523 mg/kg
Method: Calculation method

Acute dermal toxicity (Component) : Component: 107-75-5
LD50 Rabbit
Dose: > 2,000 mg/kg

Skin irritation (Component) : Component: 107-75-5
human
Result: irritating
Method: patch test
Exposure time: 24 h
Rabbit
Result: No skin irritation
Exposure time: 24 h

Sensitization (Component) : Component: 107-75-5
maximisation study human
Result: Causes sensitization.
Test substance: 12% in petrolatum
maximisation study human
Result: Did not cause sensitization on laboratory animals.
Test substance: 5% in petrolatum

Version : 2

Revision Date : 02/05/2022



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product AURALVA BHT

Print Date 02/08/2022

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Repeated dose toxicity(Component) : Component: 107-75-5

SECTION 12. ECOLOGICAL INFORMATION

Component:
107-75-5

Hydroxycitronellal

Toxicity to fish:

static test LC50

Species: *Leuciscus idus* (Golden orfe)

Dose: 22 - 46 mg/l

Exposure time: 96 h

Method: DIN 38412

Supplier

Toxicity to daphnia and other aquatic invertebrates:

static test EC50

Species: *Daphnia magna* (Water flea)

Dose: 410 mg/l

Exposure time: 48 h

Method: Tested according to Annex V of Directive 67/548/EEC.

Supplier

Toxicity to algae:

static test EC50

Species: *Desmodesmus subspicatus* (green algae)

Dose: 68 mg/l

Exposure time: 72 h

Method: DIN 38412

Supplier

SECTION 13. DISPOSAL CONSIDERATIONS

Contaminated packaging : Place material into sealed containers and dispose of in accordance with local, state and federal regulations.

SECTION 14. TRANSPORT INFORMATION

DOT Not dangerous goods

Version : 2

Revision Date : 02/06/2022

IFF Inc.
600 Highway 34
Billerica MA 01710

IFF Inc.
600 Highway 34
Billerica MA 01710



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product AURALVA BHT

Print Date 02/08/2022

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IATA Not dangerous goods

IMDG Not dangerous goods

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : Serious eye damage or eye irritation
Respiratory or skin sensitization

Reportable Quantity :

HMS Classification : Health Hazard: 1
Chronic Health Hazard: /
Flammability: 1
Physical and chemical hazards: 0

SECTION 16. OTHER INFORMATION

Further information

The information in this MSDS was obtained from current and reliable sources. However the data is provided without any warrant, expressed or implied, regarding its correctness or accuracy. Since the use, handling, storage and disposal of this product are beyond IFF control, it is the responsibility of the user both to determine safe conditions for the use of this product and to assume liability of loss, damage, or expense arising out of the product's improper use. No warranty expressed or implied regarding the product described herein shall be created by or inferred from any statement or omission in this MSDS. Various Federal, State or Provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in this MSDS. The user should review these regulations to ensure full compliance.

Version : 2
Revision Date : 02/05/2022

IFF Inc.
600 Highway 24
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SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Benzyl acetate FPD-2015A-1656

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Benzyl acetate; CAS: 140-11-4

Other identifiers: Acetic acid, benzyl ester

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Acute Toxicity - Oral Category 5
Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 2
Specific Target Organ Toxicity (Single Exposure) Category 3
Hazardous to the Aquatic Environment - Acute Hazard Category 2
Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H303, May be harmful if swallowed.
H315, Causes skin irritation.
H319, Causes serious eye irritation.
H335, May cause respiratory irritation.
H411, Toxic to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

Hazard statements: H303, May be harmful if swallowed.
H315, Causes skin irritation.

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In accordance with UN GHS latest edition

Product: Benzyl acetate FPD-2015A-1656

Version: 1

H319, Causes serious eye irritation.
H335, May cause respiratory irritation.
H411, Toxic to aquatic life with long lasting effects.

M factor: None

Precautionary statements:

P261, Avoid breathing vapour or dust.
P264, Wash hands and other contacted skin thoroughly after handling.
P271, Use only outdoors or in a well-ventilated area.
P273, Avoid release to the environment.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P304/340, IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312, Call a POISON CENTRE or doctor/physician if you feel unwell.
P332/313, If skin irritation occurs: Get medical advice/attention.
P337/313, If eye irritation persists: Get medical advice/attention.
P362, Take off contaminated clothing and wash before reuse.
P391, Collect spillage.
P403/233, Store in a well-ventilated place. Keep container tightly closed.
P405, Store locked up.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Benzyl acetate; CAS: 140-11-4

Section 4. First-aid measures

4.1 Description of first aid measures

IF ON SKIN: Wash with plenty of soap and water.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Benzyl acetate FPD-2015A-1656

Version: 1

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a POISON CENTRE or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

May be harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Benzyl acetate FPD-2015A-1656

Version: 1

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Ensure adequate and ongoing ventilation is maintained in order to prevent build up of excessive vapour and to ensure occupational exposure limits are adhered to. If appropriate, and depending on your patterns and volumes of use, the following engineering controls may be required as additional protective measures: a) Isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant. b) Employ the use of Personal protective equipment - an approved, properly fitted respirator with organic vapour cartridges or canisters and particulate filters. c) Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. d) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
pH:	Not determined
Initial boiling point / range:	Not determined
Flash point:	102 °C
Vapour pressure:	Not determined

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Benzyl acetate FPD-2015A-1656

Version: 1

Relative density: Not determined

Solubility(ies): Not determined

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

May be harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity: 2490 mg/kg

Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity: Not Applicable

Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity: Not Available

Inhalation Route: Not Available

Refer to Section 2 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Toxic to aquatic life with long lasting effects.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Benzyl acetate FPD-2015A-1656

Version: 1

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: Not classified

14.2 UN Proper Shipping Name: Not classified

14.3 Transport hazard class(es): Not classified

Sub Risk: Not classified

14.4. Packing Group: Not classified

14.5 Environmental hazards: This is an environmentally hazardous substance.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions,

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Benzyl acetate FPD-2015A-1656

Version: 1

recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Calone 1951 SDS-6021

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Calone 1951 SDS-6021(Contains:7-Methyl-2H-benzo-1,5-dioxepin-3(4H)-one)

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Acute Toxicity - Oral Category 4
H302, Harmful if swallowed.

2.2 Label elements

Signal word: Warning

Hazard statements: H302, Harmful if swallowed.

Precautionary statements: P264, Wash hands and other contacted skin thoroughly after handling.
P270, Do not eat, drink or smoke when using this product.
P301/312, IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P330, Rinse mouth.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Calone 1951 SDS-6021

Version: 1

2.3 Other hazards

Other hazards: Hydrocarbon Concentration %: 0.0000%

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	%	GHS Classification
7-Methyl-2H-benzo-1,5-dioxepin-3(4H)-one	28940-11-6	100.00%	Acute Tox. 4;H302

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

Skin exposure: Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.

Ingestion: IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Calone 1951 SDS-6021

Version: 1

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Calone 1951 SDS-6021

Version: 1

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	> 100 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Calone 1951 SDS-6021

Version: 1

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Acute Toxicity:	Acute Toxicity - Oral Category 4
Acute Toxicity Oral	500
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Ingredient	CAS	LD50/ATE Oral	LD50/ATE Dermal	LC50/ATE Inhalation	LC50 Route
7-Methyl-2H-benzo-1,5-dioxepin-3(4H)-one	28940-11-6	500	Not available	Not available	Not available

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:	Not available
12.2 Persistence and degradability:	Not available
12.3 Bioaccumulative potential:	Not available
12.4 Mobility in soil:	Not available
12.5 Other adverse effects:	Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Calone 1951 SDS-6021

Version: 1

Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	Not classified	-	-	-	-
IMDG	Not classified	-	-	-	-
ADR,RID,ADN	Not classified	-	-	-	-
ICAO TI	Not classified	-	-	-	-

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

None additional

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
Acute Tox. 4	Acute Toxicity - Oral Category 4
H302	Harmful if swallowed.
P264	Wash hands and other contacted skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P301/312	IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Citral (Natural) FPD-2015A-1789

Version: 2

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Citral; CAS: 5392-40-5

Other identifiers: 2,6-Octadienal, 3,7-dimethyl-

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Flavours, Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Acute Toxicity - Dermal Category 5
Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 2A
Sensitization - Skin Category 1
Hazardous to the Aquatic Environment - Acute Hazard Category 2
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H313, May be harmful in contact with skin.
H319, Causes serious eye irritation.
H401, Toxic to aquatic life.

2.2 Label elements

Signal word: Warning

Hazard statements: H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H313, May be harmful in contact with skin.
H319, Causes serious eye irritation.
H401, Toxic to aquatic life.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Citral (Natural) FPD-2015A-1789

Version: 2

M factor: None

Precautionary statements: P261, Avoid breathing vapour or dust.
P264, Wash hands and other contacted skin thoroughly after handling.
P272, Contaminated work clothing should not be allowed out of the workplace.
P273, Avoid release to the environment.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312, Call a POISON CENTRE or doctor/physician if you feel unwell.
P333/313, If skin irritation or rash occurs: Get medical advice/attention.
P337/313, If eye irritation persists: Get medical advice/attention.
P362, Take off contaminated clothing and wash before reuse.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Citral; CAS: 5392-40-5

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin exposure: IF ON SKIN: Wash with plenty of soap and water.

Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation.

May cause an allergic skin reaction.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Citral (Natural) FPD-2015A-1789

Version: 2

May be harmful in contact with skin.

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Flavours, Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Citral (Natural) FPD-2015A-1789

Version: 2

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	> 93 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Citral (Natural) FPD-2015A-1789

Version: 2

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute Toxicity:	Acute Toxicity - Dermal Category 5
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	2250 mg/kg
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Skin Corrosion / Irritation Category 2
Serious eye damage/irritation:	Eye Damage / Irritation Category 2A
Respiratory or skin sensitisation:	Sensitization - Skin Category 1B
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Citral (Natural) FPD-2015A-1789

Version: 2

Section 12. Ecological information

12.1 Toxicity: Not available

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	Not classified	-	-	-	-
IMDG	Not classified	-	-	-	-
ADR,RID,ADN	Not classified	-	-	-	-
ICAO TI	Not classified	-	-	-	-

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

None additional

Section 16. Other information

Key to revisions:

2.1 Classification of the substance or mixture

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Citral (Natural) FPD-2015A-1789

Version: 2

GHS Workplace Exposure Limits

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Citronellol 95% 6033

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Citronellol 95% 6033

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Flavours, Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 2
Sensitization - Skin Category 1
Hazardous to the Aquatic Environment - Acute Hazard Category 2
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H319, Causes serious eye irritation.
H401, Toxic to aquatic life.

2.2 Label elements

Signal word: Warning

Hazard statements: H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H319, Causes serious eye irritation.
H401, Toxic to aquatic life.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Citronellol 95% 6033

Version: 1

Precautionary statements:

P261, Avoid breathing vapour or dust.
P264, Wash hands and other contacted skin thoroughly after handling.
P272, Contaminated work clothing should not be allowed out of the workplace.
P273, Avoid release to the environment.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333/313, If skin irritation or rash occurs: Get medical advice/attention.
P337/313, If eye irritation persists: Get medical advice/attention.
P362, Take off contaminated clothing and wash before reuse.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



Other hazards: None

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	EC	%	GHS Classification
dl-Citronellol	106-22-9	203-375-0	95.00%	Acute Tox. 5-Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1B-Aquatic Acute 2;H303-H313-H315-H317-H319-H401
3,7-Dimethyl-1-octanol	106-21-8	203-374-5	2.00%	Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-Aquatic Acute 2-Aquatic Chronic 2;H313-H315-H319-H411
Nerol	106-25-2	203-378-7	2.00%	Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1B-Aquatic Acute 3;H303-H315-H317-H319-H402
Geraniol	106-24-1	203-377-1	1.00%	Flam. Liq. 4-Acute Tox. 5-Skin Irrit. 2-Eye Dam. 1-Eye Irrit. 2A-Skin Sens. 1-Aquatic Acute 3;H227-H303-H315-H317-H318-H319-H402

Substances with Community workplace exposure limits, not listed above:

Not Applicable

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Citronellol 95% 6033

Version: 1

Section 4. First-aid measures

4.1 Description of first aid measures

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Citronellol 95% 6033

Version: 1

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Flavours, Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
pH:	Not determined
Initial boiling point / range:	Not determined
Flash point:	100 °C
Vapour pressure:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Citronellol 95% 6033

Version: 1

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity:	3539
Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity:	2726
Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity:	Not Available
Inhalation Route:	Not Available

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity: Not available

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Citronellol 95% 6033

Version: 1

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: Not classified

14.2 UN Proper Shipping Name: Not classified

14.3 Transport hazard class(es): Not classified

Sub Risk: Not classified

14.4. Packing Group: Not classified

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Concentration % Limits: EH A2=25.77% EH A3=2.57% SCI 2=10.00% SCI 3=1.00000000% EDI 2A=9.17% SS 1=1.05%

Total Fractional Values: EH A2=3.88 EH A3=38.92 SCI 2=10.00 SCI 3=100.00 EDI 2A=10.90 SS 1=95.00

Key to revisions:

Not applicable

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Citronellol 95% 6033

Version: 1

Key to abbreviations:

Abbreviation	Meaning
Acute Tox. 5	Acute Toxicity - Oral Category 5
Acute Tox. 5	Acute Toxicity - Dermal Category 5
Aquatic Acute 2	Hazardous to the Aquatic Environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the Aquatic Environment - Acute Hazard Category 3
Aquatic Chronic 2	Hazardous to the Aquatic Environment - Long-term Hazard Category 2
Eye Dam. 1	Eye Damage / Irritation Category 1
Eye Irrit. 2A	Eye Damage / Irritation Category 2A
Flam. Liq. 4	Flammable Liquid, Hazard Category 4
H227	Combustible liquid.
H303	May be harmful if swallowed.
H313	May be harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H401	Toxic to aquatic life.
H402	Harmful to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P261	Avoid breathing vapour or dust.
P264	Wash hands and other contacted skin thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
P302/352	IF ON SKIN: Wash with plenty of soap and water.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.
P332/313	If skin irritation occurs: Get medical advice/attention.
P333/313	If skin irritation or rash occurs: Get medical advice/attention.
P337/313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P370/378	In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P391	Collect spillage.
P403/235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
Skin Irrit. 2	Skin Corrosion / Irritation Category 2
Skin Sens. 1	Sensitization - Skin Category 1
Skin Sens. 1B	Sensitization - Skin Category 1B

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Citronellol 95% 6033

Version: 1

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Cyclamen Aldehyde 6041

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Cyclamen Aldehyde 6041(Contains:2-Methyl-3-(p-isopropylphenyl)propionaldehyde)

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Flammable Liquid, Hazard Category 4
Acute Toxicity - Oral Category 5
Skin Corrosion / Irritation Category 2
Sensitization - Skin Category 1
H227, Combustible liquid.
H303, May be harmful if swallowed.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.

2.2 Label elements

Signal word: Warning

Hazard statements: H227, Combustible liquid.
H303, May be harmful if swallowed.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.

Precautionary statements: P210, Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P261, Avoid breathing vapour or dust.
P264, Wash hands and other contacted skin thoroughly after handling.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Cyclamen Aldehyde 6041

Version: 1

P272, Contaminated work clothing should not be allowed out of the workplace.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P312, Call a POISON CENTRE or doctor/physician if you feel unwell.
P333/313, If skin irritation or rash occurs: Get medical advice/attention.
P362, Take off contaminated clothing and wash before reuse.
P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235, Store in a well-ventilated place. Keep cool.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	%	GHS Classification
2-Methyl-3-(p-isopropylphenyl) propionaldehyde	103-95-7	90-100%	Flam. Liq. 4-Acute Tox. 5-Skin Irrit. 2-Skin Sens. 1B-Aquatic Acute 2-Aquatic Chronic 3;H227-H303-H315-H317-H412-H401

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.
Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
Skin exposure: IF ON SKIN: Wash with plenty of soap and water.
Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

May be harmful if swallowed.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Cyclamen Aldehyde 6041

Version: 1

Causes skin irritation.

May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Cyclamen Aldehyde 6041

Version: 1

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	87.8 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Cyclamen Aldehyde 6041

Version: 1

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Acute Toxicity:	Acute Toxicity - Oral Category 5
Acute Toxicity Oral	3848
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Skin Corrosion / Irritation Category 2
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Sensitization - Skin Category 1
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Ingredient	CAS	LD50/ATE Oral	LD50/ATE Dermal	LC50/ATE Inhalation	LC50 Route

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Cyclamen Aldehyde 6041

Version: 1

2-Methyl-3-(p-isopropylphenyl) propionaldehyde	103-95-7	3810	Not available	Not available	Not available
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Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:	Not available
12.2 Persistence and degradability:	Not available
12.3 Bioaccumulative potential:	Not available
12.4 Mobility in soil:	Not available
12.5 Other adverse effects:	Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	Not classified	-	-	-	-
IMDG	Not classified	-	-	-	-
ADR,RID,ADN	Not classified	-	-	-	-
ICAO TI	Not classified	-	-	-	-

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

None additional

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Cyclamen Aldehyde 6041

Version: 1

Section 16. Other information

Concentration % Limits: EH A2=25.25% EH A3=2.53% EH C3=25.25% EH C4=25.25% SCI 2=10.10% SCI 3=1.01% SS 1=1.01%

Total Fractional Values: EH A2=3.96 EH A3=39.60 EH C3=3.96 EH C4=3.96 SCI 2=9.90 SCI 3=99.00 SS 1=99.00

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
Acute Tox. 5	Acute Toxicity - Oral Category 5
Aquatic Acute 2	Hazardous to the Aquatic Environment - Acute Hazard Category 2
Aquatic Chronic 3	Hazardous to the Aquatic Environment - Long-term Hazard Category 3
Flam. Liq. 4	Flammable Liquid, Hazard Category 4
H227	Combustible liquid.
H303	May be harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P261	Avoid breathing vapour or dust.
P264	Wash hands and other contacted skin thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
P302/352	IF ON SKIN: Wash with plenty of soap and water.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.
P333/313	If skin irritation or rash occurs: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P370/378	In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
Skin Irrit. 2	Skin Corrosion / Irritation Category 2
Skin Sens. 1B	Sensitization - Skin Category 1B

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dihydro Eugenol SDS-6049

Version: 2

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Dihydro Eugenol SDS-6049(Contains:2-Methoxy-4-propylphenol)

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Acute Toxicity - Oral Category 5
Acute Toxicity - Dermal Category 5
Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 1
Sensitization - Skin Category 1
Specific Target Organ Toxicity (Single Exposure) Category 3
H303, May be harmful if swallowed.
H313, May be harmful in contact with skin.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H318, Causes serious eye damage.
H319, Causes serious eye irritation.
H335, May cause respiratory irritation.

2.2 Label elements

Signal word: Danger

Hazard statements: H303, May be harmful if swallowed.
H313, May be harmful in contact with skin.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dihydro Eugenol SDS-6049

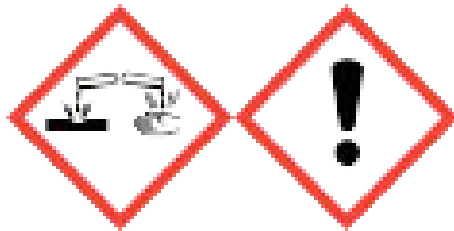
Version: 2

H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H318, Causes serious eye damage.
H319, Causes serious eye irritation.
H335, May cause respiratory irritation.

Precautionary statements:

P261, Avoid breathing vapour or dust.
P264, Wash hands and other contacted skin thoroughly after handling.
P271, Use only outdoors or in a well-ventilated area.
P272, Contaminated work clothing should not be allowed out of the workplace.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P304/340, IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310, Immediately call a POISON CENTER or doctor/physician.
P333/313, If skin irritation or rash occurs: Get medical advice/attention.
P337/313, If eye irritation persists: Get medical advice/attention.
P362, Take off contaminated clothing and wash before reuse.
P403/233, Store in a well-ventilated place. Keep container tightly closed.
P405, Store locked up.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: Hydrocarbon Concentration %: 0.0000%

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	%	GHS Classification
2-Methoxy-4-propylphenol	2785-87-7	100.00%	Acute Tox. 5-Skin Irrit. 3-Eye Irrit. 2A-Skin Sens. 1B; H303-H316-H317-H319

Substances with workplace exposure limits, not listed above:

Not Applicable

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dihydro Eugenol SDS-6049

Version: 2

Section 4. First-aid measures

4.1 Description of first aid measures

- Inhalation:** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Eye exposure:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Skin exposure:** IF ON SKIN: Wash with plenty of soap and water.
- Ingestion:** Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- May be harmful if swallowed.
- May be harmful in contact with skin.
- Causes skin irritation.
- May cause an allergic skin reaction.
- Causes serious eye damage.
- Causes serious eye irritation.
- May cause respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dihydro Eugenol SDS-6049

Version: 2

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Ensure adequate and ongoing ventilation is maintained in order to prevent build up of excessive vapour and to ensure occupational exposure limits are adhered to. If appropriate, and depending on your patterns and volumes of use, the following engineering controls may be required as additional protective measures: a) Isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant. b) Employ the use of Personal protective equipment - an approved, properly fitted respirator with organic vapour cartridges or canisters and particulate filters. c) Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. d) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product:	Dihydro Eugenol SDS-6049
Version:	2
Flash point:	> 93.3 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected
9.2 Other information:	None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Acute Toxicity:	Acute Toxicity - Oral Category 5 Acute Toxicity - Dermal Category 5
Acute Toxicity Oral	2600

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dihydro Eugenol SDS-6049

Version: 2

Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Skin Corrosion / Irritation Category 2
Serious eye damage/irritation:	Eye Damage / Irritation Category 1
Respiratory or skin sensitisation:	Sensitization - Skin Category 1
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Specific Target Organ Toxicity (Single Exposure) Category 3
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Ingredient	CAS	LD50/ATE Oral	LD50/ATE Dermal	LC50/ATE Inhalation	LC50 Route
2-Methoxy-4-propylphenol	2785-87-7	2600	Not available	Not available	Not available

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:	Not available
12.2 Persistence and degradability:	Not available
12.3 Bioaccumulative potential:	Not available
12.4 Mobility in soil:	Not available
12.5 Other adverse effects:	Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class(es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	Not classified	-	-	-	-

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dihydro Eugenol SDS-6049

Version: 2

IMDG	Not classified	-	-	-	-
ADR,RID,ADN	Not classified	-	-	-	-
ICAO TI	Not classified	-	-	-	-

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

None additional

Section 16. Other information

Concentration % Limits: SCI 3=10.00% EDI 2A=10.00% SS 1=1.00000000%

Total Fractional Values: SCI 3=10.00 EDI 2A=10.00 SS 1=100.00

Key to revisions:

2.1 Classification of the substance or mixture

Key to abbreviations:

Abbreviation	Meaning
Acute Tox. 5	Acute Toxicity - Oral Category 5
Eye Irrit. 2A	Eye Damage / Irritation Category 2A
H303	May be harmful if swallowed.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
P261	Avoid breathing vapour or dust.
P264	Wash hands and other contacted skin thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/eye protection/face protection.
P302/352	IF ON SKIN: Wash with plenty of soap and water.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.
P333/313	If skin irritation or rash occurs: Get medical advice/attention.
P337/313	If eye irritation persists: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dihydro Eugenol SDS-6049

Version: 2

P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
Skin Irrit. 3	Skin Corrosion / Irritation Category 3
Skin Sens. 1B	Sensitization - Skin Category 1B

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dihydromyrcenol FPD-2015A-1894

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Dihydromyrcenol; CAS: 18479-58-8

Other identifiers: 2,6-Dimethyl-7-octen-2-ol

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Flammable Liquid, Hazard Category 4
Acute Toxicity - Oral Category 5
Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 2A
Hazardous to the Aquatic Environment - Acute Hazard Category 3
Hazardous to the Aquatic Environment - Long-term Hazard Category 3
H227, Combustible liquid.
H303, May be harmful if swallowed.
H315, Causes skin irritation.
H319, Causes serious eye irritation.
H412, Harmful to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

Hazard statements: H227, Combustible liquid.
H303, May be harmful if swallowed.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dihydromyrcenol FPD-2015A-1894

Version: 1

H315, Causes skin irritation.
H319, Causes serious eye irritation.
H412, Harmful to aquatic life with long lasting effects.

M factor: None

Precautionary statements:

P210, Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P264, Wash hands and other contacted skin thoroughly after handling.
P273, Avoid release to the environment.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312, Call a POISON CENTRE or doctor/physician if you feel unwell.
P332/313, If skin irritation occurs: Get medical advice/attention.
P337/313, If eye irritation persists: Get medical advice/attention.
P362, Take off contaminated clothing and wash before reuse.
P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235, Store in a well-ventilated place. Keep cool.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Dihydromyrcenol; CAS: 18479-58-8

Section 4. First-aid measures

4.1 Description of first aid measures

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a POISON CENTRE or doctor/physician if you feel unwell.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dihydromyrcenol FPD-2015A-1894

Version: 1

4.2 Most important symptoms and effects, both acute and delayed

May be harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dihydromyrcenol FPD-2015A-1894

Version: 1

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Not determined

Odour: Not determined

pH: Not determined

Initial boiling point / range: Not determined

Flash point: 76 °C

Vapour pressure: Not determined

Relative density: Not determined

Solubility(ies): Not determined

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dihydromyrcenol FPD-2015A-1894

Version: 1

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

May be harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity:	3600 mg/kg
Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity:	Not Applicable
Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity:	Not Available
Inhalation Route:	Not Available

Refer to Section 2 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dihydromyrcenol FPD-2015A-1894

Version: 1

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

- 14.1 UN number:** Not classified
- 14.2 UN Proper Shipping Name:** Not classified
- 14.3 Transport hazard class(es):** Not classified
- Sub Risk:** Not classified
- 14.4. Packing Group:** Not classified
- 14.5 Environmental hazards:** Not environmentally hazardous for transport
- 14.6 Special precautions for user:** None additional
- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:**
Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Dimethyl Benzyl Carbonyl Acetate FPD-2015A-1039

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: 1,1-Dimethyl-2-phenylethyl acetate; CAS: 151-05-3

Other identifiers: 1,1-Dimethyl-2-phenylethyl acetate

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Classification under Regulation (EC) No 1272/2008

Class and category of danger: Skin Corrosion / Irritation Category 2
Hazardous to the Aquatic Environment - Long-term Hazard Category 3
H315, Causes skin irritation.
H412, Harmful to aquatic life with long lasting effects.

2.2 Label elements

Classification under Regulation (EC) No 1272/2008

Signal word: Warning

Hazard statements: H315, Causes skin irritation.
H412, Harmful to aquatic life with long lasting effects.

M factor: None

Supplemental Information: None

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Dimethyl Benzyl Carbonyl Acetate FPD-2015A-1039

Version: 1

Supplemental Information:

Precautionary statements:

- P264, Wash hands and other contacted skin thoroughly after handling.
- P273, Avoid release to the environment.
- P280, Wear protective gloves/eye protection/face protection.
- P302/352, IF ON SKIN: Wash with plenty of soap and water.
- P332/313, If skin irritation occurs: Get medical advice/attention.
- P362, Take off contaminated clothing and wash before reuse.
- P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: 1,1-Dimethyl-2-phenylethyl acetate; CAS: 151-05-3

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.
Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
Skin exposure: IF ON SKIN: Wash with plenty of soap and water.
Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Dimethyl Benzyl Carbonyl Acetate FPD-2015A-1039

Version: 1

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Dimethyl Benzyl Carbonyl Acetate FPD-2015A-1039

Version: 1

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	> 93 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Dimethyl Benzyl Carbonyl Acetate FPD-2015A-1039

Version: 1

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	3300 mg/kg
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Skin Corrosion / Irritation Category 2
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Dimethyl Benzyl Carbonyl Acetate FPD-2015A-1039

Version: 1

Section 12. Ecological information

12.1 Toxicity:

Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: Not classified

14.2 UN Proper Shipping Name: -

14.3 Transport hazard class(es): Not classified

Sub Risk: Not classified

14.4. Packing Group: Not classified

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Dimethyl Benzyl Carbonyl Acetate FPD-2015A-1039

Version: 1

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dimethyl Octenone SDS-6057

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Dimethyl Octenone SDS-6057

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Flammable Liquid, Hazard Category 4
Eye Damage / Irritation Category 2B
H227, Combustible liquid.
H320, Causes eye irritation.

2.2 Label elements

Signal word: Warning

Hazard statements: H227, Combustible liquid.
H320, Causes eye irritation.

Precautionary statements: P210, Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P264, Wash ... thoroughly after handling.
P264, Wash hands and other contacted skin thoroughly after handling.
P280, Wear protective gloves/eye protection/face protection.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337/313, If eye irritation persists: Get medical advice/attention.
P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235, Store in a well-ventilated place. Keep cool.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dimethyl Octenone SDS-6057

Version: 1

P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms: None

2.3 Other hazards

Other hazards: Hydrocarbon Concentration %: 0.0000%

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Not Applicable

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin exposure: Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.

Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Causes eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dimethyl Octenone SDS-6057

Version: 1

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dimethyl Octenone SDS-6057

Version: 1

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	61.1 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected
9.2 Other information:	None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dimethyl Octenone SDS-6057

Version: 1

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Eye Damage / Irritation Category 2B
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:	Not available
12.2 Persistence and degradability:	Not available
12.3 Bioaccumulative potential:	Not available
12.4 Mobility in soil:	Not available
12.5 Other adverse effects:	Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Dimethyl Octenone SDS-6057

Version: 1

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	Not classified	-	-	-	-
IMDG	Not classified	-	-	-	-
ADR,RID,ADN	Not classified	-	-	-	-
ICAO TI	Not classified	-	-	-	-

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

None additional

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ebanol FPD-2015A-1389

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: 3-Methyl-5-(2,2,3-trimethyl-3-cyclopenten-1-yl)pent-4-en-2-ol; CAS: 67801-20-1

Other identifiers: 3-Methyl-5-(2,2,3-trimethyl-3-cyclopenten-1-yl)pent-4-en-2-ol

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Acute Toxicity - Dermal Category 5
Hazardous to the Aquatic Environment - Acute Hazard Category 2
Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H313, May be harmful in contact with skin.
H411, Toxic to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

Hazard statements: H313, May be harmful in contact with skin.
H411, Toxic to aquatic life with long lasting effects.

M factor: None

Precautionary statements: P273, Avoid release to the environment.
P312, Call a POISON CENTRE or doctor/physician if you feel unwell.
P391, Collect spillage.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ebanol FPD-2015A-1389

Version: 1

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: 3-Methyl-5-(2,2,3-trimethyl-3-cyclopenten-1-yl)pent-4-en-2-ol; CAS: 67801-20-1

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

Skin exposure: Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.

Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

May be harmful in contact with skin.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ebanol FPD-2015A-1389

Version: 1

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ebanol FPD-2015A-1389

Version: 1

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	100 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ebanol FPD-2015A-1389

Version: 1

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute Toxicity:	Acute Toxicity - Dermal Category 5
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	2500 mg/kg
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ebanol FPD-2015A-1389

Version: 1

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (3-Methyl-5-(2,2,3-trimethyl-3-cyclopenten-1-yl)pent-4-en-2-ol)	9	-	III
IMDG	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (3-Methyl-5-(2,2,3-trimethyl-3-cyclopenten-1-yl)pent-4-en-2-ol) MARINE POLLUTANT	9	-	III
ADR, DOT, ADN	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (3-Methyl-5-(2,2,3-trimethyl-3-cyclopenten-1-yl)pent-4-en-2-ol)	9	-	III
IATA, Non-Bulk DOT	-	Not Regulated	-	-	-

14.5 Environmental hazards: This is classified as an environmentally hazardous substance under the UN Model Regulations. This is classified as a Marine Pollutant under the IMDG Code.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable

Section 15. Regulatory information

None additional

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl Linalool 10339-55-6

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Ethyl Linalool 10339-55-6

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Flammable Liquid, Hazard Category 4
Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 2
H227, Combustible liquid.
H315, Causes skin irritation.
H319, Causes serious eye irritation.

2.2 Label elements

Signal word: Warning

Hazard statements: H227, Combustible liquid.
H315, Causes skin irritation.
H319, Causes serious eye irritation.

Precautionary statements: P210, Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P264, Wash hands and other contacted skin thoroughly after handling.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl Linalool 10339-55-6

Version: 1

P332/313, If skin irritation occurs: Get medical advice/attention.
P337/313, If eye irritation persists: Get medical advice/attention.
P362, Take off contaminated clothing and wash before reuse.
P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235, Store in a well-ventilated place. Keep cool.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	%	GHS Classification
3,7-Dimethyl-1,6-nonadien-3-ol	10339-55-6	100.00%	Flam. Liq. 4-Skin Irrit. 2-Eye Irrit. 2A-Aquatic Acute 3; H227-H315-H319-H402

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin exposure: IF ON SKIN: Wash with plenty of soap and water.

Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation.

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl Linalool 10339-55-6

Version: 1

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl Linalool 10339-55-6

Version: 1

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	80.56 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	0.8600
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information: None available

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl Linalool 10339-55-6

Version: 1

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Skin Corrosion / Irritation Category 2
Serious eye damage/irritation:	Eye Damage / Irritation Category 2
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl Linalool 10339-55-6

Version: 1

Section 12. Ecological information

12.1 Toxicity: Not available

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	Not classified	-	-	-	-
IMDG	Not classified	-	-	-	-
ADR,RID,ADN	Not classified	-	-	-	-
ICAO TI	Not classified	-	-	-	-

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

None additional

Section 16. Other information

Concentration % Limits: EH A3=25.00% SCI 2=10.00% SCI 3=1.00000000% EDI 2A=10.00%

Total Fractional Values: EH A3=4.00 SCI 2=10.00 SCI 3=100.00 EDI 2A=10.00

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl Linalool 10339-55-6

Version: 1

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
Aquatic Acute 3	Hazardous to the Aquatic Environment - Acute Hazard Category 3
Eye Irrit. 2A	Eye Damage / Irritation Category 2A
Flam. Liq. 4	Flammable Liquid, Hazard Category 4
H227	Combustible liquid.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H402	Harmful to aquatic life.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P264	Wash hands and other contacted skin thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
P302/352	IF ON SKIN: Wash with plenty of soap and water.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332/313	If skin irritation occurs: Get medical advice/attention.
P337/313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P370/378	In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
Skin Irrit. 2	Skin Corrosion / Irritation Category 2

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl Maltol 1% in PG SDS-EM1PG

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Ethyl Maltol 1% in PG SDS-EM1PG

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses:

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: This material does not meet the criteria for classification under UN GHS

2.2 Label elements

Signal word: None

Hazard statements: None

Precautionary statements: P301/312, IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P303/361/353, IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304/341, IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312, Call a POISON CENTRE or doctor/physician if you feel unwell.
P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.

Pictograms: None

2.3 Other hazards

Other hazards: Hydrocarbon Concentration %: 0.0000%

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl Maltol 1% in PG SDS-EM1PG

Version: 1

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	%	GHS Classification
Ethyl maltol	4940-11-8	1.00%	Acute Tox. 4;H302

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

- Inhalation:** IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Eye exposure:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Skin exposure:** IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
- Ingestion:** IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

None expected, see Section 4.1 for further information.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl Maltol 1% in PG SDS-EM1PG

Version: 1

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Not determined

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl Maltol 1% in PG SDS-EM1PG

Version: 1

Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	> 93.5 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected
9.2 Other information:	None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl Maltol 1% in PG SDS-EM1PG

Version: 1

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

This material does not meet the criteria for classification for health hazards under UN GHS

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	>5000
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Ingredient	CAS	LD50/ATE Oral	LD50/ATE Dermal	LC50/ATE Inhalation	LC50 Route
Ethyl maltol	4940-11-8	1200	Not available	Not available	Not available

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:	Not available
12.2 Persistence and degradability:	Not available
12.3 Bioaccumulative potential:	Not available
12.4 Mobility in soil:	Not available
12.5 Other adverse effects:	Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl Maltol 1% in PG SDS-EM1PG

Version: 1

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	Not classified	-	-	-	-
IMDG	Not classified	-	-	-	-
ADR,RID,ADN	Not classified	-	-	-	-
ICAO TI	Not classified	-	-	-	-

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

None additional

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
Acute Tox. 4	Acute Toxicity - Oral Category 4
H302	Harmful if swallowed.
P264	Wash hands and other contacted skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P301/312	IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl vanillin FPD-2015A-1992

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Ethyl vanillin; CAS: 121-32-4

Other identifiers: 3-Ethoxy-4-hydroxybenzaldehyde

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Flavours, Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Acute Toxicity - Oral Category 5
Eye Damage / Irritation Category 2B
Hazardous to the Aquatic Environment - Acute Hazard Category 3
H303, May be harmful if swallowed.
H320, Causes eye irritation.
H402, Harmful to aquatic life.

2.2 Label elements

Signal word: Warning

Hazard statements: H303, May be harmful if swallowed.
H320, Causes eye irritation.
H402, Harmful to aquatic life.

M factor: None

Precautionary statements: P264, Wash hands and other contacted skin thoroughly after handling.
P273, Avoid release to the environment.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl vanillin FPD-2015A-1992

Version: 1

P280, Wear protective gloves/eye protection/face protection.

P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312, Call a POISON CENTRE or doctor/physician if you feel unwell.

P337/313, If eye irritation persists: Get medical advice/attention.

P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms: None

Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Ethyl vanillin; CAS: 121-32-4

Section 4. First-aid measures

4.1 Description of first aid measures

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a POISON CENTRE or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

May be harmful if swallowed.

Causes eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl vanillin FPD-2015A-1992

Version: 1

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Flavours, Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl vanillin FPD-2015A-1992

Version: 1

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Not determined
Odour: Not determined
pH: Not determined
Initial boiling point / range: Not determined
Flash point: > 93 °C
Vapour pressure: Not determined
Relative density: Not determined
Solubility(ies): Not determined

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

May be harmful if swallowed.

Causes eye irritation.

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity: 3000 mg/kg

Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity: Not Applicable

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl vanillin FPD-2015A-1992

Version: 1

Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity: Not Available

Inhalation Route: Not Available

Refer to Section 2 for additional information.

Section 12. Ecological information

12.1 Toxicity: Not available

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: Not classified

14.2 UN Proper Shipping Name: Not classified

14.3 Transport hazard class(es): Not classified

Sub Risk: Not classified

14.4. Packing Group: Not classified

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethyl vanillin FPD-2015A-1992

Version: 1

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethylene brassylate FPD-2015A-1995

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Ethylene brassylate; CAS: 105-95-3

Other identifiers: 1,4-Dioxacycloheptadecane-5,17-dione

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Skin Corrosion / Irritation Category 2
Hazardous to the Aquatic Environment - Acute Hazard Category 2
H315, Causes skin irritation.
H401, Toxic to aquatic life.

2.2 Label elements

Signal word: Warning

Hazard statements: H315, Causes skin irritation.
H401, Toxic to aquatic life.

M factor: None

Precautionary statements: P264, Wash hands and other contacted skin thoroughly after handling.
P273, Avoid release to the environment.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P332/313, If skin irritation occurs: Get medical advice/attention.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethylene brassylate FPD-2015A-1995

Version: 1

P362, Take off contaminated clothing and wash before reuse.

P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Ethylene brassylate; CAS: 105-95-3

Section 4. First-aid measures

4.1 Description of first aid measures

IF ON SKIN: Wash with plenty of soap and water.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethylene brassylate FPD-2015A-1995

Version: 1

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethylene brassylate FPD-2015A-1995

Version: 1

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
pH:	Not determined
Initial boiling point / range:	Not determined
Flash point:	161 °C
Vapour pressure:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

Causes skin irritation.

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity:	Not Applicable
Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity:	Not Applicable
Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity:	Not Available

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethylene brassylate FPD-2015A-1995

Version: 1

Inhalation Route: Not Available

Refer to Section 2 for additional information.

Section 12. Ecological information

12.1 Toxicity: Not available

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: Not classified

14.2 UN Proper Shipping Name: Not classified

14.3 Transport hazard class(es): Not classified

Sub Risk: Not classified

14.4. Packing Group: Not classified

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ethylene brassylate FPD-2015A-1995

Version: 1

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Exaltolide 8257

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Exaltolide 8257(Contains:omega-Pentadecalactone)

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Flavours,Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Skin Corrosion / Irritation Category 3
Sensitization - Skin Category 1
Hazardous to the Aquatic Environment - Acute Hazard Category 1
Hazardous to the Aquatic Environment - Long-term Hazard Category 1
H317, May cause an allergic skin reaction.
H316, Causes mild skin irritation.
H410, Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

Hazard statements: H317, May cause an allergic skin reaction.
H316, Causes mild skin irritation.
H410, Very toxic to aquatic life with long lasting effects.

Precautionary statements: P261, Avoid breathing vapour or dust.
P272, Contaminated work clothing should not be allowed out of the workplace.
P273, Avoid release to the environment.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Exaltolide 8257

Version: 1

P333/313, If skin irritation or rash occurs: Get medical advice/attention.

P363, Wash contaminated clothing before reuse.

P391, Collect spillage.

P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	%	GHS Classification
omega-Pentadecalactone	106-02-5	100.00%	Skin Irrit. 3-Skin Sens. 1B-Aquatic Chronic 2;H317-H316-H411

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

Skin exposure: IF ON SKIN: Wash with plenty of soap and water.

Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

May cause an allergic skin reaction.

Causes mild skin irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Exaltolide 8257

Version: 1

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Flavours, Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Exaltolide 8257

Version: 1

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	> 93.5 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information: None available

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Exaltolide 8257

Version: 1

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Skin Corrosion / Irritation Category 3
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Sensitization - Skin Category 1
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Exaltolide 8257

Version: 1

Section 12. Ecological information

12.1 Toxicity:

Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (omega-Pentadecalactone)	9	-	III
IMDG	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (omega-Pentadecalactone) MARINE POLLUTANT	9	-	III
ADR,RID,ADN, DOT (Bulk)	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (omega-Pentadecalactone)	9	-	III
DOT (Non-Bulk) IATA	-	-	-	-	-

14.5 Environmental hazards: This is classified as an environmentally hazardous substance under the UN Model Regulations. This is classified as a Marine Pollutant under the IMDG Code.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Exaltolide 8257

Version: 1

Section 15. Regulatory information

None additional

Section 16. Other information

Concentration % Limits: EH C2=25.00% EH C3=2.50% EH C4=25.00% SCI 3=10.00% SS 1=1.00000000%

Total Fractional Values: EH C2=4.00 EH C3=40.00 EH C4=4.00 SCI 3=10.00 SS 1=100.00

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
Aquatic Chronic 2	Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
P261	Avoid breathing vapour or dust.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
P302/352	IF ON SKIN: Wash with plenty of soap and water.
P333/313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
Skin Irrit. 3	Skin Corrosion / Irritation Category 3
Skin Sens. 1B	Sensitization - Skin Category 1B

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Florhydral SDS-6085

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Florhydral SDS-6085

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses:

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Flammable Liquid, Hazard Category 4
Acute Toxicity - Oral Category 5
Acute Toxicity - Dermal Category 5
Hazardous to the Aquatic Environment - Acute Hazard Category 2
Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H227, Combustible liquid.
H303, May be harmful if swallowed.
H313, May be harmful in contact with skin.
H401, Toxic to aquatic life.
H411, Toxic to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

Hazard statements: H227, Combustible liquid.
H303, May be harmful if swallowed.
H313, May be harmful in contact with skin.
H401, Toxic to aquatic life.
H411, Toxic to aquatic life with long lasting effects.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Florhydral SDS-6085

Version: 1

Precautionary statements:

- P210, Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
- P273, Avoid release to the environment.
- P280, Wear protective gloves/eye protection/face protection.
- P312, Call a POISON CENTRE or doctor/physician if you feel unwell.
- P370/378, In case of fire: Use...for extinction.
- P391, Collect spillage.
- P403/235, Store in a well-ventilated place. Keep cool.
- P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: Hydrocarbon Concentration %: 0.0000%

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	%	GHS Classification
Isopropylphenylbutanal	125109-85-5	100.00%	Flam. Liq. 4-Aquatic Acute 2-Aquatic Chronic 2;H227-H411

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

Skin exposure: Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.

Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

May be harmful if swallowed.

May be harmful in contact with skin.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Florhydral SDS-6085

Version: 1

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Florhydral SDS-6085

Version: 1

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	67.8 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information: None available

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Florhydral SDS-6085

Version: 1

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Acute Toxicity:	Acute Toxicity - Oral Category 5 Acute Toxicity - Dermal Category 5
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Florhydral SDS-6085

Version: 1

Section 12. Ecological information

12.1 Toxicity:

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isopropylphenylbutanal)	9	-	III
IMDG	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isopropylphenylbutanal) MARINE POLLUTANT	9	-	III
ADR,RID,ADN	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isopropylphenylbutanal)	9	-	III
ICAO TI	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isopropylphenylbutanal)	9	-	III

14.5 Environmental hazards: This is classified as an environmentally hazardous substance under the UN Model Regulations. This is classified as a Marine Pollutant under the IMDG Code.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Florhydral SDS-6085

Version: 1

Section 15. Regulatory information

None additional

Section 16. Other information

Concentration % Limits: EH A2=25.00% EH A3=2.50% EH C2=25.00% EH C3=2.50% EH C4=25.00%

Total Fractional Values: EH A2=4.00 EH A3=40.00 EH C2=4.00 EH C3=40.00 EH C4=4.00

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
Aquatic Acute 2	Hazardous to the Aquatic Environment - Acute Hazard Category 2
Aquatic Chronic 2	Hazardous to the Aquatic Environment - Long-term Hazard Category 2
Flam. Liq. 4	Flammable Liquid, Hazard Category 4
H227	Combustible liquid.
H411	Toxic to aquatic life with long lasting effects.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
P370/378	In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P391	Collect spillage.
P403/235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product GALAXOLIDE 50 IPM

Print Date 10.04.2015

Page 1 (6)

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : GALAXOLIDE 50 IPM
IFF Code : 00070302
Cust. Material : 00070302
MSDS Number : R0000022267

Use of the Substance/Mixture : Ingredient used in Flavour and/or Fragrance preparations

Company : IFF (GREAT BRITAIN) LTD.
DUDDERY HILL
HAVERHILL
SuffolkCB9 8LG

Telephone : +441440715000
Emergency telephone number : +44 1440 7 15000

2. HAZARDS IDENTIFICATION

GHS-Classification

Skin corrosion/irritation, Category 3
Acute aquatic toxicity, Category 1
Chronic aquatic toxicity, Category 1

GHS-Labeling

Symbol(s) :



Signal word : Warning

Hazard statements : H316: Causes mild skin irritation.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements : P273: Avoid release to the environment.
P332 + P313: If skin irritation occurs: Get medical advice/ attention.
P391: Collect spillage.

P501: Dispose of contents/ container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical nature : Ingredient used in Flavour and/or Fragrance preparations

Hazardous components

Version : 2
Revision Date : 10.04.2015



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product GALAXOLIDE 50 IPM

Print Date 10.04.2015

Page 2 (6)

Chemical Name	CAS-No.	Concentration
Cyclopenta[g]-2-benzopyran, 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8- hexamethyl-	1222-05-5	60 - 100%
Tetradecanoic acid, 1-methylethyl ester	110-27-0	30 - 60%

none

4. FIRST AID MEASURES

- Inhalation : Remove from exposure site to fresh air and keep at rest. Obtain medical advice.
- Skin contact : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
- Eye contact : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- Ingestion : Rinse mouth with water and obtain medical advice.

5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Carbondioxide, dry chemical, foam.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.
- Environmental precautions : Keep away from drains, surface- and groundwater and soil.
- Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations.

7. HANDLING AND STORAGE

Handling

- Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.

If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or

Version : 2
Revision Date : 10.04.2015



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product GALAXOLIDE 50 IPM

Print Date 10.04.2015

Page 3 (6)

hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.

Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

Storage

Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Verify if the substances declared in section 3 have relevant national exposure limits.

Personal protective equipment

Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

- a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
- b) during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or
- c) if normal operational workplace vapor concentration in the air is increased due to heat ;
- d) during emergencies; or
- e) if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material. To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be

Version : 2

Revision Date : 10.04.2015



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present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.

Protective measures : In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].
In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".
Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.
The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : liquid
Colour : colorless
Odour : conforms to standard

Safety data

Flash point : > 100.0 °C
Ignition temperature : > 100 °C
Vapour pressure : < 0.01 hPa
Note: Calculated
Partition coefficient: n-octanol/water : log Pow: 5.920

10. STABILITY AND REACTIVITY

Conditions to avoid : Remarks: Direct sources of heat.
Hazardous decomposition products : Note: Carbon monoxide and unidentified organic compounds may be formed during combustion.
Hazardous reactions : Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

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11. TOXICOLOGICAL INFORMATION

There is no data available for this product. The health hazards are assessed based on the ingredients in this preparation and their concentrations.

12. ECOLOGICAL INFORMATION

Avoid contamination of soil, ground and surface water.

13. DISPOSAL CONSIDERATIONS

Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

IATA

UN number : 3082
Description of the goods : Environmentally hazardous substance, liquid, n.o.s.
(HEXAMETHYLINDANOPYRAN)
Labels : 9
Packing group : III

IMDG_GLOBAL

UN number : 3082
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(HEXAMETHYLINDANOPYRAN)
Labels : 9
Packing group : III
Marine pollutant : yes

15. REGULATORY INFORMATION

Labelling according to EC Directives 1999/45/EC

Symbol(s) : N Dangerous for the environment

R-phrases(s) : R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases(s) : S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

HMIS Classification : Health hazard: 1
Flammability: 1

Version : 2

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INTERNATIONAL FLAVORS & FRAGRANCES

Product GALAXOLIDE 50 IPM

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Physical and chemical hazards: 0

16. OTHER INFORMATION

Further information

The information in this safety data sheet is based on the properties of the material known to IFF at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances under which it is packaged, stored or applied in the workplace. For such a safety assessment International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

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SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product GERANYL ACETATE A

Print Date 19.05.2015

Page 1 (6)

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : GERANYL ACETATE A
IFF Code : 00071043
Cust. Material : 00071043
MSDS Number : R00000222304

Use of the Substance/Mixture : Ingredient used in Flavour and/or Fragrance preparations

Company : IFF Inc.
600 Highway 36
Hazlet NJ 07730

Telephone : +17322644500
Emergency telephone number : +1 800 424 9300

2. HAZARDS IDENTIFICATION

GHS-Classification

Skin corrosion/irritation, Category 2
Skin sensitization, Category 1
Acute aquatic toxicity, Category 2
Chronic aquatic toxicity, Category 3

GHS-Labeling

Symbol(s) : 

Signal word : Warning

Hazard statements : H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H401: Toxic to aquatic life.
H412: Harmful to aquatic life with long lasting effects.

Precautionary statements : P261: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264: Wash skin thoroughly after handling.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear protective gloves.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P321: Specific treatment (see supplemental first aid instructions on this label).
P333 + P313: If skin irritation or rash occurs: Get medical advice/ attention.

Version : 3

Revision Date : 29.07.2014



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product GERANYL ACETATE A

Print Date 19.05.2015

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P362: Take off contaminated clothing and wash before reuse.

P501: Dispose of contents/ container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name of the substance : geranyl acetate
Chemical characterization : esters of aliphatic acids
Molecular formula : C₁₂H₂₀O₂
Molecular Weight : 196.10 g/mol
CAS-No. : 105-87-3

4. FIRST AID MEASURES

Inhalation : Remove from exposure site to fresh air and keep at rest. Obtain medical advice.
Skin contact : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
Eye contact : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
Ingestion : Rinse mouth with water and obtain medical advice.

5. FIREFIGHTING MEASURES

Suitable extinguishing media : Carbondioxide, dry chemical, foam.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.
Environmental precautions : Keep away from drains, surface- and groundwater and soil.
Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations.

7. HANDLING AND STORAGE

Handling

Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period.

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Product GERANYL ACETATE A

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Contaminated clothing and shoes should be thoroughly cleaned before re-use.

If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.

Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

Storage

Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Verify if the substances declared in section 3 have relevant national exposure limits.

Personal protective equipment

Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

- a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
- b) during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or
- c) if normal operational workplace vapor concentration in the air is increased due to heat ;
- d) during emergencies; or
- e) if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

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Product GERANYL ACETATE A

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- Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material.
To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.
- Protective measures : In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].
In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".
Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.
The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

- Physical state : liquid
Colour : colorless to pale yellow
Odour : conforms to standard

Safety data

- Flash point : 108 °C
Ignition temperature : > 100 °C
Vapour pressure : 0.02 hPa
Note: Calculated

10. STABILITY AND REACTIVITY

- Conditions to avoid : Remarks: Direct sources of heat.
Hazardous decomposition products : Note: Carbon monoxide and unidentified organic compounds may be formed during combustion.

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INTERNATIONAL FLAVORS & FRAGRANCES

Product GERANYL ACETATE A

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Hazardous reactions : Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50 (rat) = 6,330 mg/kg

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability : Readily biodegradable. (91 %, 28 d, OECD Test Guideline 301)

Ecotoxicity effects

Toxicity to fish : LC50(96 h, Pimephales promelas (fathead minnow)) = 6.12 mg/l (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates : EC50(48 h, Daphnia magna (Water flea)) = 14.1 mg/l (Directive 67/548/EEC, Annex V, C.2.)

Toxicity to algae : ErC50(72 h, Desmodesmus subspicatus (green algae)) = 3.72 mg/l (OECD Test Guideline 201)

: EbC50(72 h, Desmodesmus subspicatus (green algae)) = 1.58 mg/l (OECD Test Guideline 201)

13. DISPOSAL CONSIDERATIONS

Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

IATA

Not dangerous goods

IMDG_GLOBAL

Not dangerous goods

15. REGULATORY INFORMATION

Labelling according to EC Directives 1999/45/EC

Symbol(s) : Xi Irritant
N Dangerous for the environment

R-phrases(s) : R38 Irritating to skin.
R43 May cause sensitization by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Version : 3

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S-phrase(s) : S24 Avoid contact with skin.
S37 Wear suitable gloves.
S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

HMIS Classification : Health hazard: 1
Flammability: 1
Physical and chemical hazards: 0

16. OTHER INFORMATION

Further information

The information in this safety data sheet is based on the properties of the material known to IFF at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances under which it is packaged, stored or applied in the workplace. For such a safety assessment International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

Version : 3
Revision Date : 29.07.2014

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Habanolide 6099

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Habanolide 6099

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Acute Toxicity - Oral Category 5
Acute Toxicity - Dermal Category 5
Hazardous to the Aquatic Environment - Acute Hazard Category 1
Hazardous to the Aquatic Environment - Long-term Hazard Category 1
H303, May be harmful if swallowed.
H313, May be harmful in contact with skin.
H410, Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

Hazard statements: H303, May be harmful if swallowed.
H313, May be harmful in contact with skin.
H410, Very toxic to aquatic life with long lasting effects.

Precautionary statements: P273, Avoid release to the environment.
P312, Call a POISON CENTRE or doctor/physician if you feel unwell.
P391, Collect spillage.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

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In accordance with UN GHS latest edition

Product: Habanolide 6099

Version: 1

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	%	GHS Classification
E- and Z-Oxacyclohexadec-12 (+13)-en-2-one	111879-80-2	100.00%	Skin Irrit. 3-Aquatic Acute 1-Aquatic Chronic 1;H316-H410

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

Skin exposure: Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.

Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

May be harmful if swallowed.

May be harmful in contact with skin.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

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In accordance with UN GHS latest edition

Product: Habanolide 6099

Version: 1

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high

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temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	> 93.5 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

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In accordance with UN GHS latest edition

Product: Habanolide 6099

Version: 1

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Acute Toxicity:	Acute Toxicity - Oral Category 5 Acute Toxicity - Dermal Category 5
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Other adverse effects: Not available

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In accordance with UN GHS latest edition

Product: Habanolide 6099

Version: 1

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (E- and Z-Oxacyclohexadec-12(+13)-en-2-one)	9	-	III
IMDG	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (E- and Z-Oxacyclohexadec-12(+13)-en-2-one) MARINE POLLUTANT	9	-	III
ADR,RID,ADN	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (E- and Z-Oxacyclohexadec-12(+13)-en-2-one)	9	-	III
DOT Non-Bulk IATA	Not Regulated	-	-	-	-

14.5 Environmental hazards: This is classified as an environmentally hazardous substance under the UN Model Regulations. This is classified as a Marine Pollutant under the IMDG Code.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not applicable

Section 15. Regulatory information

None additional

Section 16. Other information

Concentration % Limits: EH A1=25.00% EH A2=2.50% EH A3=0.25000000% EH C1=25.00% EH C2=2.50% EH C3=0.25000000% EH C4=25.00% SCI 3=10.00%

Total Fractional Values: EH A1=4.00 EH A2=40.00 EH A3=400.00 EH C1=4.00 EH C2=40.00 EH C3=400.00 EH C4=4.00 SCI 3=10.00

Key to revisions:
Not applicable

Key to abbreviations:

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Habanolide 6099

Version: 1

Abbreviation	Meaning
Aquatic Acute 1	Hazardous to the Aquatic Environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the Aquatic Environment - Long-term Hazard Category 1
H316	Causes mild skin irritation.
H410	Very toxic to aquatic life with long lasting effects.
P273	Avoid release to the environment.
P332/313	If skin irritation occurs: Get medical advice/attention.
P391	Collect spillage.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
Skin Irrit. 3	Skin Corrosion / Irritation Category 3

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Hedione FPD-2015A-2295

Version: 2

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Methyl dihydrojasmonate; CAS: 24851-98-7

Other identifiers: 2-Amylcyclopentanoneacetic acid, methyl ester

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Flavours

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H411, Toxic to aquatic life with long lasting effects.

2.2 Label elements

Signal word: None

Hazard statements: H411, Toxic to aquatic life with long lasting effects.

M factor: None

Precautionary statements: P273, Avoid release to the environment.

P391, Collect spillage.

P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



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In accordance with UN GHS latest edition

Product: Hedione FPD-2015A-2295

Version: 2

2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Methyl dihydrojasmonate; CAS: 24851-98-7

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

Skin exposure: Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.

Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

None expected, see Section 4.1 for further information.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Hedione FPD-2015A-2295

Version: 2

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Flavours: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined

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In accordance with UN GHS latest edition

Product:	Hedione FPD-2015A-2295
Version:	2
Flash point:	150 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected
9.2 Other information:	None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This material does not meet the criteria for classification for health hazards under UN GHS

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable

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In accordance with UN GHS latest edition

Product: Hedione FPD-2015A-2295

Version: 2

Acute Toxicity Inhalation: Not Available

Skin corrosion/irritation: Based on available data the classification criteria are not met.

Serious eye damage/irritation: Based on available data the classification criteria are not met.

Respiratory or skin sensitisation: Based on available data the classification criteria are not met.

Germ cell mutagenicity: Based on available data the classification criteria are not met.

Carcinogenicity: Based on available data the classification criteria are not met.

Reproductive toxicity: Based on available data the classification criteria are not met.

STOT-single exposure: Based on available data the classification criteria are not met.

STOT-repeated exposure: Based on available data the classification criteria are not met.

Aspiration hazard: Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	Not classified	-	-	-	-
IMDG	Not classified	-	-	-	-
ADR,RID,ADN	Not classified	-	-	-	-

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Hedione FPD-2015A-2295

Version: 2

ICAO TI	Not classified	-	-	-	-
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14.5 Environmental hazards: This is classified as an environmentally hazardous substance under the UN Model Regulations. This is classified as a Marine Pollutant under the IMDG Code.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

None additional

Section 16. Other information

Key to revisions:

GHS Workplace Exposure Limits

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

Product HELIONAL

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Page 1 (10)

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : HELIONAL
MSDS Number : R00000223804

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Ingredient used in Flavour and/or Fragrance preparations

1.3 Details of the supplier of the safety data sheet

Company : IFF Benicarló, S.L.
Avda. Felipe Klein 2
12580 BENICARLÓ
Telephone : +34964470212
Telefax : +34964473411
E-mail address : sds@iff.com

Responsible/issuing person

1.4 Emergency telephone number

+34 964 470 212

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin sensitisation, Sub-category 1B H317: May cause an allergic skin reaction.
Chronic aquatic toxicity, Category 2 H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements : H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/

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P273 spray.
Avoid release to the environment.
P280 Wear protective gloves.
Response:
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Hazardous components which must be listed on the label:

- 1205-17-0 #-methyl-1,3-benzodioxole-5-propionaldehyde

2.3 Other hazards

None reasonably foreseeable.

3. Composition/information on ingredients

3.1 Substances

Chemical name of the substance : #-methyl-1,3-benzodioxole-5-propionaldehyde
Chemical characterization : aromatic aldehydes
Molecular weight : 192,20 g/mol
CAS-No. : 1205-17-0
EINECS-No. : 214-881-6

Hazardous components

Chemical Name	CAS-No. EC-No.	GHS Classification	Concentration [%]
#-methyl-1,3-benzodioxole-5-propionaldehyde	1205-17-0 214-881-6	Skin Sens.1B; H317 Aquatic Chronic2; H411	50 - 100

For the full text of the R-phrases mentioned in this Section, see Section 16.

3.2 Mixtures

Not applicable, product is a substance.

4. First aid measures

4.1 Description of first aid measures

General advice : Take Risk and Safety phrases (section 15) into account.

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- If inhaled : Remove from exposure site to fresh air and keep at rest. Obtain medical advice.
- In case of skin contact : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
- In case of eye contact : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- If swallowed : Rinse mouth with water and obtain medical advice.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No information available.
- Risks : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : No information available.

5. Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Carbondioxide, dry chemical, foam.
- Unsuitable extinguishing media : Do not use a direct waterjet on burning material.

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : Water may be ineffective.

5.3 Advice for firefighters

- Further information : Standard procedure for chemical fires.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.

6.2 Environmental precautions

- Environmental precautions : Keep away from drains, surface- and groundwater and soil.

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6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations.

6.4 Reference to other sections

Prevent spreading over a wide area (e.g. by containment or oil barriers).

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.

If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.

Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

7.3 Specific end use(s)

Specific use(s) : No information available.

8. Exposure controls/personal protection

8.1 Control parameters

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Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

Where appropriate, use closed systems to transfer and process this material.

If appropriate, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant.

Personal protective equipment

Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

- a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
- b) during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or
- c) if normal operational workplace vapor concentration in the air is increased due to heat ;
- d) during emergencies; or
- e) if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

Hand protection : Avoid skin contact. Use chemically resistant gloves.

Eye protection : Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.

Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material. To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be

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present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.

Environmental exposure controls

General advice : Keep away from drains, surface- and groundwater and soil.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: liquid
Colour	: colorless to pale yellow
Odour	: conforms to standard
Odour Threshold	: not determined
Flash point	: 100 °C
Lower explosion limit	: not determined
Upper explosion limit	: not determined
Flammability (solid, gas)	: not determined
Oxidizing properties	: not determined
Auto-ignition temperature	: not determined
pH	: not determined
Melting point	: not determined
Boiling point	: not determined
Vapour pressure	: < 0,01 hPa Calculated
Density	: not determined
Water solubility	: not determined
Partition coefficient: n-octanol/water	: log Pow: 1,368
Solubility in other solvents	: not determined
Viscosity, dynamic	: not determined
Viscosity, kinematic	: not determined
Relative vapour density	: not determined
Evaporation rate	: not determined

9.2 Other information

Refractive index	: not determined
Relative density	: 1,1590 - 1,1670

10. Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

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10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Note: Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

10.4 Conditions to avoid

Conditions to avoid : Direct sources of heat.

10.5 Incompatible materials

Materials to avoid : Avoid contact with strong acids, alkali or oxidizing agents.

10.6 Hazardous decomposition products

Hazardous decomposition products : Carbon monoxide and unidentified organic compounds may be formed during combustion.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity : LD50: 3.600 mg/kg
Species: Rat
Remarks: IFF

Acute dermal toxicity : LD50: > 2.000 mg/kg
Species: Rabbit

Skin corrosion/irritation

Skin irritation : No information available.
Skin irritation : Species: human
Result: No skin irritation
Method: repeated insult patch test

Serious eye damage/eye irritation

No information available.

Respiratory or skin sensitisation

No information available.
Sensitisation : Species: human

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Result: Did not cause sensitisation on laboratory animals.
Test substance: 20% in ethanol

Germ cell mutagenicity

No information available.

Carcinogenicity

No information available.

Reproductive toxicity

No information available.

Target Organ Systemic Toxicant - Single exposure

No information available.

Target Organ Systemic Toxicant - Repeated exposure

No information available.

Aspiration hazard

No information available.

12. Ecological information

12.1 Toxicity

Toxicity to daphnia and other aquatic invertebrates : EC50: 8,3 mg/l
Exposure time: 48 h

M-Factor
alpha-methyl-1,3-benzodioxole-5-propionaldehyde : 1

12.2 Persistence and degradability

No information available.

Biodegradability : Result: Not readily biodegradable.
24 %
Method: Directive 67/548/EEC Annex V, C.4.B.
: Result: Inherently biodegradable.
66 %

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

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This substance/mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

vPvB substance

12.6 Other adverse effects

No information available.

13. Disposal considerations

13.1 Waste treatment methods

- Product : Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

ADR

- UN number : 3082
- Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (A-METHYL-3,4-METHYLENEDIOXYHYDRO CINNAMIC ALDEHYDE)
- Labels : 9
- Packing group : III
- Environmentally hazardous : yes

IATA

- UN number : 3082
- Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (A-METHYL-3,4-METHYLENEDIOXYHYDRO CINNAMIC ALDEHYDE)
- Labels : 9
- Packing group : III
- Environmentally hazardous : yes

IMDG

- UN number : 3082
- Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (A-METHYL-3,4-METHYLENEDIOXYHYDRO CINNAMIC ALDEHYDE)
- Labels : 9
- Packing group : III
- Marine pollutant : yes

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INTERNATIONAL FLAVORS & FRAGRANCES

Product HELIONAL

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Special precautions for user : No special precautions required.

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Water contaminating class : WGK 2 water endangering
(Germany)

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

16. Other information

Full text of H-Statements referred to under sections 2 and 3.

H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Further information

In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110]. In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".

Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.

The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

According to Regulation (EC) No. 1907/2006 the information in this safety data sheet is based on the properties of the material known to IFF at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances, under which it is packaged, stored or applied in the workplace. For such a safety assessment International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

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SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: cis-3-Hexenol FPD-2015A-2711

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: cis-3-Hexenol; CAS: 928-96-1

Other identifiers: 3-Hexen-1-ol, (Z)

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Classification under Regulation (EC) No 1272/2008

Class and category of danger: Flammable Liquid, Hazard Category 3
Eye Damage / Irritation Category 2
H226, Flammable liquid and vapour.
H319, Causes serious eye irritation.

2.2 Label elements

Classification under Regulation (EC) No 1272/2008

Signal word: Warning

Hazard statements: H226, Flammable liquid and vapour.
H319, Causes serious eye irritation.

M factor: None

Supplemental Information: None

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In accordance with REACH Regulation EC No.1907/2006

Product: cis-3-Hexenol FPD-2015A-2711

Version: 1

Supplemental Information:

Precautionary statements:

P210, Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P233, Keep container tightly closed.
P240, Ground/bond container and receiving equipment.
P241, Use explosion-proof electrical, ventilating and lighting equipment.
P242, Use only non-sparking tools.
P243, Take precautionary measures against static discharge.
P264, Wash hands and other contacted skin thoroughly after handling.
P280, Wear protective gloves/eye protection/face protection.
P303/361/353, IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337/313, If eye irritation persists: Get medical advice/attention.
P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235, Store in a well-ventilated place. Keep cool.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: cis-3-Hexenol; CAS: 928-96-1

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin exposure: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: cis-3-Hexenol FPD-2015A-2711

Version: 1

water/shower.

Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: cis-3-Hexenol FPD-2015A-2711

Version: 1

7.2 Conditions for safe storage, including any incompatibilities:

Ground/bond container and receiving equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	55 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined

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In accordance with REACH Regulation EC No.1907/2006

Product: cis-3-Hexenol FPD-2015A-2711

Version: 1

Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Eye Damage / Irritation Category 2
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: cis-3-Hexenol FPD-2015A-2711

Version: 1

Aspiration hazard: Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity: Not available

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: UN1987

14.2 UN Proper Shipping Name: ALCOHOLS, N.O.S. (HEXENOL CIS-3)

14.3 Transport hazard class(es): 3

Sub Risk: Not classified

14.4. Packing Group: III

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: cis-3-Hexenol FPD-2015A-2711

Version: 1

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Hexenyl Cis-3 Acetate 6105

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Hexenyl Cis-3 Acetate 6105

Other identifiers: None

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Classification under Regulation (EC) No 1272/2008

Class and category of danger: Flammable Liquid, Hazard Category 3
H226, Flammable liquid and vapour.

2.2 Label elements

Classification under Regulation (EC) No 1272/2008

Signal word: Warning

Hazard statements: H226, Flammable liquid and vapour.

Supplemental Information: None

Precautionary statements: P210, Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P233, Keep container tightly closed.
P240, Ground/bond container and receiving equipment.
P241, Use explosion-proof electrical, ventilating and lighting equipment.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Hexenyl Cis-3 Acetate 6105

Version: 1

P242, Use only non-sparking tools.
P243, Take precautionary measures against static discharge.
P280, Wear protective gloves/eye protection/face protection.
P303/361/353, IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235, Store in a well-ventilated place. Keep cool.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Not Applicable

Substances with Community workplace exposure limits:

Not Applicable

Substances that are endocrine disruptors according to Regulation (EU) 2017/2100 or Regulation (EU) 2018/605, greater than 0.1%:

Not Applicable

Substances that are persistent, bioaccumulative and toxic or very persistent and very bioaccumulative, greater than 0.1%:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

Skin exposure: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Hexenyl Cis-3 Acetate 6105

Version: 1

water/shower.

Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

None expected, see Section 4.1 for further information.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking.

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In accordance with REACH Regulation EC No.1907/2006

Product: Hexenyl Cis-3 Acetate 6105

Version: 1

7.2 Conditions for safe storage, including any incompatibilities:

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State/Colour:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
Melting point / freezing point:	Not determined
Boiling point or initial boiling point and boiling range:	Not determined
Flammability:	Not determined
Lower and upper explosion limit:	Not determined
Flash point:	58.3 °C
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not relevant
pH:	Not determined
Kinematic viscosity:	Not determined
Solubility:	Not determined

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In accordance with REACH Regulation EC No.1907/2006

Product: Hexenyl Cis-3 Acetate 6105

Version: 1

Partition coefficient: n-octanol/water (log value): Not determined

Vapour pressure: Not determined

Density and/or relative density: Not determined

Relative vapour density: Not determined

Particle characteristics: Not determined

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in Regulation (EC) No 1272/2008 (CLP).

This material does not meet the criteria for classification for health hazards under Regulation (EC) No 1272/2008.

Acute Toxicity: Based on available data the classification criteria are not met.

Acute Toxicity Oral Not Applicable

Acute Toxicity Dermal Not Applicable

Acute Toxicity Inhalation Not Available

Skin corrosion/irritation: Based on available data the classification criteria are not met.

Serious eye damage/irritation: Based on available data the classification criteria are not met.

Respiratory or skin sensitisation: Based on available data the classification criteria are not met.

Germ cell mutagenicity: Based on available data the classification criteria are not met.

Carcinogenicity: Based on available data the classification criteria are not met.

Reproductive toxicity: Based on available data the classification criteria are not met.

STOT-single exposure: Based on available data the classification criteria are not met.

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In accordance with REACH Regulation EC No.1907/2006

Product: Hexenyl Cis-3 Acetate 6105

Version: 1

STOT-repeated exposure: Based on available data the classification criteria are not met.

Aspiration hazard: Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

11.2 Information on other hazards

Not Applicable

Section 12. Ecological information

12.1 Toxicity: Not available

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Endocrine disrupting properties: Not Applicable

12.7 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	UN3272	Esters N.O.S. (HEXENYL CIS-3 ACETATE)	3	-	III
IMDG	UN3272	Esters N.O.S. (HEXENYL CIS-3 ACETATE)	3	-	III
ADR,RID,ADN	UN3272	Esters N.O.S. (HEXENYL CIS-3 ACETATE)	3	-	III
ICAO TI	UN3272	Esters N.O.S. (HEXENYL CIS-3 ACETATE)	3	-	III

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Hexenyl Cis-3 Acetate 6105

Version: 1

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Hexyl salicylate FPD-2015A-2090

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Hexyl salicylate; CAS: 6259-76-3

Other identifiers: Benzoic acid, 2-hydroxy-, hexyl ester

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Classification under Regulation (EC) No 1272/2008

Class and category of danger: Skin Corrosion / Irritation Category 2
Sensitization - Skin Category 1
Hazardous to the Aquatic Environment - Long-term Hazard Category 1
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H410, Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Classification under Regulation (EC) No 1272/2008

Signal word: Warning

Hazard statements: H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H410, Very toxic to aquatic life with long lasting effects.

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In accordance with REACH Regulation EC No.1907/2006

Product: Hexyl salicylate FPD-2015A-2090

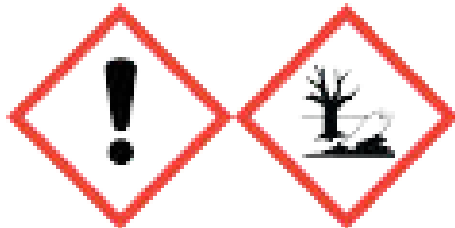
Version: 1

M factor: None

Supplemental Information: None

Precautionary statements: P261, Avoid breathing vapour or dust.
P264, Wash hands and other contacted skin thoroughly after handling.
P272, Contaminated work clothing should not be allowed out of the workplace.
P273, Avoid release to the environment.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P333/313, If skin irritation or rash occurs: Get medical advice/attention.
P362, Take off contaminated clothing and wash before reuse.
P391, Collect spillage.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Hexyl salicylate; CAS: 6259-76-3

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.
Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
Skin exposure: IF ON SKIN: Wash with plenty of soap and water.
Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation.

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In accordance with REACH Regulation EC No.1907/2006

Product: Hexyl salicylate FPD-2015A-2090

Version: 1

May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

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In accordance with REACH Regulation EC No.1907/2006

Product: Hexyl salicylate FPD-2015A-2090

Version: 1

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	151 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined

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In accordance with REACH Regulation EC No.1907/2006

Product: Hexyl salicylate FPD-2015A-2090

Version: 1

Explosive properties: Not expected

Oxidising properties: Not expected

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Skin Corrosion / Irritation Category 2
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Sensitization - Skin Category 1
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Hexyl salicylate FPD-2015A-2090

Version: 1

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: UN3082

14.2 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Hexyl salicylate)

14.3 Transport hazard class(es): 9

Sub Risk: -

14.4. Packing Group: III

14.5 Environmental hazards: This is an environmentally hazardous substance.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

Not applicable

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Hexyl salicylate FPD-2015A-2090

Version: 1

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product INDOLENE 50

Print Date 06/10/2020

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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : INDOLENE 50
IFF Code : 00093619
Cust. Material : 00093619
SDS Number : R00000224716
Product Use Description : Fragrance Compound

Company : IFF Benicarló, S.L.
Avda. Felipe Klein 2
12580 BENICARLÓ

Telephone : +34964470212
Telefax : +34964473411
Emergency telephone number : +34 964 470 212

SECTION 2 HAZARDS IDENTIFICATION

GHS-Classification

Eye irritation, Category 2A
Skin sensitisation, Category 1

GHS-Labeling

Symbol(s) :



Signal word : Warning

Hazard statements : H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.

Precautionary statements : P280: Wear protective gloves/ eye protection/ face protection.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.

Version : 1
Revision Date : 06/10/2020

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INTERNATIONAL FLAVORS & FRAGRANCES

Product INDOLENE 50

Print Date 06/10/2020

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Carcinogenicity:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Fragrance for consumer product

Fragrance Compound: A multi component mixture of fragrance ingredients. The specific chemical identities of the ingredients not listed herein are considered by IFF to be Trade Secrets and are withheld in accordance with the provisions of 1910.1200 of Title29 of the U.S. Code of Federal Regulations.

SECTION 4. FIRST AID MEASURES

First aid procedures

- Inhalation : Remove from exposure site to fresh air and keep at rest. If victim is unconscious, remove foreign bodies from the mouth. If victim has stopped breathing, give artificial respiration. Obtain medical advice.
- Skin contact : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
- Eye contact : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- Ingestion : Rinse mouth with water and obtain medical advice.

Notes to physician

- Risks : May cause an allergic skin reaction.
Causes serious eye irritation.

Version : 1
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INTERNATIONAL FLAVORS & FRAGRANCES

Product INDOLENE 50

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SECTION 5. FIREFIGHTING MEASURES

Flammable properties

Flash point : 230.00 °F (110.00 °C)

Fire fighting

Suitable extinguishing media : Use water spray, dry chemical, carbon dioxide or appropriate foam.

Protective equipment and precautions for firefighters

Special protective equipment for firefighters : Wear NIOSH approved self-contained breathing apparatus and full protective clothing when fighting fires involving chemicals. Use water spray to cool containers exposed to fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.

Environmental precautions : Keep away from drains, surface- and groundwater and soil.

Methods for containment /
Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations.

SECTION 7. HANDLING AND STORAGE

Handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period.

Version : 1

Revision Date : 06/10/2020

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SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product INDOLENE 50

Print Date 06/10/2020

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Contaminated clothing and shoes should be thoroughly cleaned before re-use.

If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.

Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	Listed by	Value type	Exposure limit(s)
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	USA. ACGIH Threshold Limit Values (TLV)	8-hour, time-weighted average	5 mg/m ³
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	USA. NIOSH Recommended Exposure Limits	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek	5 mg/m ³
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000	8-hour time weighted average	5 mg/m ³
1,2-Benzenedicarboxylic acid, 1,2-diethyl ester	California permissible exposure limits for chemical contaminants (Title 8, Article 107)	Permissible exposure limit	5 mg/m ³

Engineering measures

Version : 1
Revision Date : 06/10/2020



SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product INDOLENE 50

Print Date 06/10/2020

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Engineering measures : Where feasible, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant. Where feasible, use closed systems to transfer and process this material

Personal protective equipment

Eye protection : Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.

Hand protection : Avoid skin contact. Use chemically resistant gloves.

Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

- a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
- b) during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or
- c) if normal operational workplace vapor concentration in the air is increased due to heat ;
- d) during emergencies; or
- e) if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to

Version : 1

Revision Date : 06/10/2020

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SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product INDOLENE 50

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this material.

To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.

Protective measures

: In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].

In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".

Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace.

The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.

The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : liquid
Appearance : VISCOUS LIQUID
Colour : orange to red-brown
Odour : conforms to standard

Safety data

Flash point : 230.00 °F (110.00 °C)
Vapour pressure : < .01 hPa (< 0.01 hPa)
Note: Calculated

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Relative density (20 °C) : 1.1130 - 1.1160

Partition coefficient: n-octanol/water : log Pow: 5.010

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : Remarks: Direct sources of heat.

Chemical stability : Remarks: Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

Hazardous decomposition products : Note: Carbon monoxide and unidentified organic compounds may be formed during combustion.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicological information

Further information : There is no data available for this product. The health hazards are assessed based on the ingredients in this preparation and their concentrations.

SECTION 12. ECOLOGICAL INFORMATION

Ecological information

Additional ecological information : Avoid contamination of soil, ground and surface water.

SECTION 13. DISPOSAL CONSIDERATIONS

Contaminated packaging : Place material into sealed containers and dispose of in accordance

Version : 1

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Product INDOLENE 50

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with local, state and federal regulations.

SECTION 14. TRANSPORT INFORMATION

DOT Not dangerous goods

IATA UN number : 3082
Description of the goods : ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, LIQUID, N.O.S.
(INDOLENE)
Class : 9
Packing group : III
ICAO-Labels : 9

IMDG UN number : 3082
Description of the goods : ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, LIQUID, N.O.S.
(INDOLENE)
Class : 9
Packing group : III
IMDG-Labels : 9
EmSNumber 1 : F-A
EmSNumber 2 : S-F
Marine pollutant : yes
(INDOLENE)

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : Serious eye damage or eye irritation
Respiratory or skin sensitisation

Reportable Quantity :

HMIS Classification : Health hazard: 2
Chronic Health Hazard: /
Flammability: 1
Physical and chemical hazards: 0

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SECTION 16. OTHER INFORMATION

Further information

The information in this MSDS was obtained from current and reliable sources. However the data is provided without any warrant, expressed or implied, regarding its correctness or accuracy. Since the use, handling, storage and disposal of this product are beyond IFF control, it is the responsibility of the user both to determine safe conditions for the use of this product and to assume liability of loss, damage, or expense arising out of the product's improper use. No warranty expressed or implied regarding the product described herein shall be created by or inferred from any statement or omission in this MSDS. Various Federal, State or Provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product which may not be reflected in this MSDS. The user should review these regulations to ensure full compliance.

Version : 1
Revision Date : 06/10/2020

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SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product ISO E SUPER

Print Date 11/25/2021

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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ISO E SUPER
Cust. Material : 00098953
SDS Number : R00000225033
Product Use Description : Fragrance Ingredient

Company : IFF Inc.
600 Highway 36
Haslet NJ 07730

Telephone : (732) 264-4500
Telefax : (732) 335-2551
Emergency telephone number : +1 800 424 9300

SECTION 2 HAZARDS IDENTIFICATION

GHS-Classification

Skin irritation, Category 2
Skin sensitisation, Sub-category 1B

GHS-Labeling

Symbol(s)



Signal word

: Warning

Hazard statements

: H315: Causes skin irritation.
H317: May cause an allergic skin reaction.

Precautionary statements

: P280: Wear protective gloves.
P102 + P352: IF ON SKIN: Wash with plenty of soap and water.

Carcinogenicity:

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INTERNATIONAL FLAVORS & FRAGRANCES

Product ISO E SUPER

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No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Component	CAS-No.
Ethanone, 1-(1,2,3,5,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)-	68155-66-8, 54464-57-2, 68155-67-9
Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-	128-37-0

SECTION 4. FIRST AID MEASURES

First aid procedures

- Inhalation** : Remove from exposure site to fresh air and keep at rest. If victim is unconscious, remove foreign bodies from the mouth. If victim has stopped breathing, give artificial respiration. Obtain medical advice.
- Skin contact** : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
- Eye contact** : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- Ingestion** : Rinse mouth with water and obtain medical advice.

Notes to physician

- Risks** : Causes skin irritation.
May cause an allergic skin reaction.

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Bridle 01 07758

IFF Inc.
500 Highway 30
Bridle 01 07758



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Product ISO E SUPER

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SECTION 5. FIREFIGHTING MEASURES

Flammable properties

Flash point : 273 °F (134 °C)

Fire fighting

Suitable extinguishing media : Use water spray, dry chemical, carbon dioxide or appropriate foam.

Protective equipment and precautions for firefighters

Special protective equipment for firefighters : Wear NIOSH approved self-contained breathing apparatus and full protective clothing when fighting fires involving chemicals. Use water spray to cool containers exposed to fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.

Environmental precautions : Keep away from drains, surface- and groundwater and soil.

Methods for containment /
Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations.

SECTION 7. HANDLING AND STORAGE

Handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact.

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SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product : ISO E SUPER

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before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.

If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees. Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Engineering measures

Engineering measures : Where feasible, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant. Where feasible, use closed systems to transfer and process this material.

Personal protective equipment

Eye protection : Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.

Hand protection : Avoid skin contact. Use chemically resistant gloves.

Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation.

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INTERNATIONAL FLAVORS & FRAGRANCES

Product ISO E SUPER

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including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

- a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
- b) during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or
- c) if normal operational workplace vapor concentration in the air is increased due to heat ;
- d) during emergencies; or
- e) if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

Hygiene measures

- 1. To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material.
To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.

Protective measures

- 1. In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].
In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".
Both of these reports provide recommendations for reducing

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Revision Date : 11/24/2021

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SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product ISO E SUPER

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employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.

The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : liquid at 68 °F (20 °C) (1,013.00 hPa (1,013 hPa))

Appearance : CLEAR LIQUID
Colour : pale yellow

Odour : conforms to standard

Safety data

Flash point : 273 °F (134 °C)

Auto-ignition temperature : 500 °F (260 °C)
at 1,013.00 hPa (1,013 hPa)
Method: Tested according to Annex V of Directive 67/548/EEC.

Boiling point : 554.72 °F (290.40 °C)
at 1,013.00 hPa (1,013 hPa)
Note: Calculated

Vapour pressure : .00 hPa (0.00213 hPa)
at 73 °F (23 °C)
Method: Purge & Trap

Relative density (20 °C) : 0.9611 - 0.9670
Method: ISO 279

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INTERNATIONAL FLAVORS & FRAGRANCES

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Water solubility : 0.00268 g/l
at 68 °F (20 °C)
Method: OECD Test Guideline 105

Partition coefficient: n-octanol/water : log Pow: 5.650

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : Remarks: Direct sources of heat.

Chemical stability : Remarks: Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

Hazardous decomposition products : Note: Carbon monoxide and unidentified organic compounds may be formed during combustion.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity (Component) : Component: 68155-66-8
LD50 Rat
Dose: > 5,000 mg/kg
Method: OECD Test Guideline 401
Remarks: IFF

Acute dermal toxicity (Component) : Component: 68155-66-8
LD50 Rat
Dose: > 5,000 mg/kg
Method: OECD Test Guideline 402

Skin irritation (Component) : Component: 68155-66-8
human
Result: Skin irritation
Method: OECD 439

Eye irritation(Component) : Component: 68155-66-8
Result: No eye irritation

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SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

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Method: QSAR

Sensitisation (Component) : Component: 68155-66-8
LLNA Mouse
Result: Causes sensitisation.
Method: OECD 429

Repeated dose toxicity(Component) : Component: 68155-66-8
Oral/Rat
Number of exposures: 1x /day
NOEL: 150 mg/kg
Method: OECD Test Guideline 407
Remarks: Repeated dose (28 days) toxicity (oral)

Teratogenicity (Component) : Component: 68155-66-8
Application Route: Oral
Rat
Number of exposures: 1x /day

SECTION 12. ECOLOGICAL INFORMATION

Component:
68155-66-8

Trimethyl
Acetyloctahydro
naphthalenes

Toxicity to fish:
semi-static test LC50
Species: Lepomis macrochirus (Bluegill sunfish)
Dose: 1.3 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates:
semi-static test EC50
Species: Daphnia magna (Water flea)
Dose: 1.38 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

IFF
Toxicity to algae:
static test EC50
Species: Desmodesmus subspicatus (green algae)
Dose: 2.6 mg/l

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Product ISD E SUPER

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Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to bacteria:
static test NOEC
Species:
Dose: > 100 mg/l
Exposure time: 42 h
Method: OECD 301 F

<03EHS_L_TEXT(CED-N12.00224460)>
<03EHS_L_TEXT(CED-H11.00000120)>
semi-static test NOEC
Species: Danio rerio (zebra fish)
Concentration: .16 mg/l
Exposure time: 30 d
Method: OECD 210
<03EHS_L_TEXT(CED-H12.00200010)>
<03EHS_L_TEXT(CED-H11.00000120)>
NOEC
Species: Daphnia magna (Water flea)
Concentration: .02 mg/l
Exposure time: 21 d
Method: OECD 211

SECTION 13. DISPOSAL CONSIDERATIONS

Contaminated packaging : Place material into sealed containers and dispose of in accordance with local, state and federal regulations.

SECTION 14. TRANSPORT INFORMATION

DOT Not dangerous goods

IATA UN number : 3082
Description of the goods : ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, LIQUID, N.O.S.

Version : 6
Revision Date : 11/24/2021

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SAFETY DATA SHEET

INTERNATIONAL FLAVORS & FRAGRANCES

Product ISO E SUPER

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		(Octahydro Tetramethyl Naphthalenyl Ethanone)
	Class	: 9
	Packing group	: III
	ICAO-Labels	: 9
IMDG	UN number	: 3082
	Description of the goods	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Octahydro Tetramethyl Naphthalenyl Ethanone)
	Class	: 9
	Packing group	: III
	IMDG-Labels	: 9
	EmSNumber 1	: F-A
	EmSNumber 2	: S-F
	Marine pollutant	: yes
		(Octahydro Tetramethyl Naphthalenyl Ethanone)

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : Skin corrosion or irritation
Respiratory or skin sensitisation

Reportable Quantity :

HMIS Classification : Health hazard: 2
Chronic Health Hazard: /
Flammability: 1
Physical and chemical hazards: 0

SECTION 16. OTHER INFORMATION

Further information

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INTERNATIONAL FLAVORS & FRAGRANCES

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Version : 5
Revision Date : 11/24/2021

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Telephone : +1(256)4400001

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Linalool FPD-2015A-2225

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Linalool; CAS: 78-70-6

Other identifiers: 1,6-Octadien-3-ol, 3,7-dimethyl-

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Flavours, Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Classification under Regulation (EC) No 1272/2008

Class and category of danger: Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 2
H315, Causes skin irritation.
H319, Causes serious eye irritation.

2.2 Label elements

Classification under Regulation (EC) No 1272/2008

Signal word: Warning

Hazard statements: H315, Causes skin irritation.
H319, Causes serious eye irritation.

M factor: None

Supplemental Information: None

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Linalool FPD-2015A-2225

Version: 1

Supplemental Information:

Precautionary statements:

P264, Wash hands and other contacted skin thoroughly after handling.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332/313, If skin irritation occurs: Get medical advice/attention.
P337/313, If eye irritation persists: Get medical advice/attention.
P362, Take off contaminated clothing and wash before reuse.

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Linalool; CAS: 78-70-6

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.
Eye exposure: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin exposure: IF ON SKIN: Wash with plenty of soap and water.
Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation.

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Linalool FPD-2015A-2225

Version: 1

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Flavours, Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Linalool FPD-2015A-2225

Version: 1

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	77 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Linalool FPD-2015A-2225

Version: 1

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	2790 mg/kg
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Skin Corrosion / Irritation Category 2
Serious eye damage/irritation:	Eye Damage / Irritation Category 2
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Linalool FPD-2015A-2225

Version: 1

Section 12. Ecological information

12.1 Toxicity: Not available

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: Not classified

14.2 UN Proper Shipping Name: -

14.3 Transport hazard class(es): Not classified

Sub Risk: Not classified

14.4. Packing Group: Not classified

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Linalyl acetate FPD-2015A-2227

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Linalyl acetate; CAS: 115-95-7

Other identifiers: 1,5-Dimethyl-1-vinylhex-4-en-1-yl acetate

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Flammable Liquid, Hazard Category 4
Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 2A
Sensitization - Skin Category 1
H227, Combustible liquid.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H319, Causes serious eye irritation.

2.2 Label elements

Signal word: Warning

Hazard statements: H227, Combustible liquid.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H319, Causes serious eye irritation.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Linalyl acetate FPD-2015A-2227

Version: 1

M factor: None

Precautionary statements:

- P210, Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
- P261, Avoid breathing vapour or dust.
- P264, Wash hands and other contacted skin thoroughly after handling.
- P272, Contaminated work clothing should not be allowed out of the workplace.
- P280, Wear protective gloves/eye protection/face protection.
- P302/352, IF ON SKIN: Wash with plenty of soap and water.
- P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P333/313, If skin irritation or rash occurs: Get medical advice/attention.
- P337/313, If eye irritation persists: Get medical advice/attention.
- P362, Take off contaminated clothing and wash before reuse.
- P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
- P403/235, Store in a well-ventilated place. Keep cool.
- P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Linalyl acetate; CAS: 115-95-7

Section 4. First-aid measures

4.1 Description of first aid measures

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Linalyl acetate FPD-2015A-2227

Version: 1

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Linalyl acetate FPD-2015A-2227

Version: 1

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
pH:	Not determined
Initial boiling point / range:	Not determined
Flash point:	88.5 °C
Vapour pressure:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
9.2 Other information:	None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Linalyl acetate FPD-2015A-2227

Version: 1

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity: Not Applicable

Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity: Not Applicable

Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity: Not Available

Inhalation Route: Not Available

Refer to Section 2 for additional information.

Section 12. Ecological information

12.1 Toxicity: Not available

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Linalyl acetate FPD-2015A-2227

Version: 1

Section 14. Transport information

14.1 UN number: Not classified
14.2 UN Proper Shipping Name: Not classified
14.3 Transport hazard class(es): Not classified
Sub Risk: Not classified
14.4. Packing Group: Not classified
14.5 Environmental hazards: Not environmentally hazardous for transport
14.6 Special precautions for user: None additional
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl Benzoate SDS-6162

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Methyl Benzoate SDS-6162(Contains:Methyl benzoate)

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Flammable Liquid, Hazard Category 4
Acute Toxicity - Oral Category 4
Skin Corrosion / Irritation Category 3
Hazardous to the Aquatic Environment - Acute Hazard Category 3
Hazardous to the Aquatic Environment - Long-term Hazard Category 3
H227, Combustible liquid.
H302, Harmful if swallowed.
H316, Causes mild skin irritation.
H319, Causes serious eye irritation.
H402, Harmful to aquatic life.
H412, Harmful to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

Hazard statements: H227, Combustible liquid.
H302, Harmful if swallowed.
H316, Causes mild skin irritation.
H319, Causes serious eye irritation.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl Benzoate SDS-6162

Version: 1

Precautionary statements:

H402, Harmful to aquatic life.
H412, Harmful to aquatic life with long lasting effects.

P210, Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P264, Wash hands and other contacted skin thoroughly after handling.
P270, Do not eat, drink or smoke when using this product.
P273, Avoid release to the environment.
P280, Wear protective gloves/eye protection/face protection.
P301/312, IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330, Rinse mouth.
P337/313, If eye irritation persists: Get medical advice/attention.
P332/313, If skin irritation occurs: Get medical advice/attention.
P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235, Store in a well-ventilated place. Keep cool.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: Hydrocarbon Concentration %: 0.0000%

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	%	GHS Classification
Methyl benzoate	93-58-3	100.00%	Flam. Liq. 4-Acute Tox. 4-Skin Irrit. 3;H227-H302-H316

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

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In accordance with UN GHS latest edition

Product: Methyl Benzoate SDS-6162

Version: 1

Eye exposure: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin exposure: Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.

Ingestion: IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed.

Causes mild skin irritation.

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl Benzoate SDS-6162

Version: 1

precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection.: Yes

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	82.8 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product:	Methyl Benzoate SDS-6162
Version:	1
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected
9.2 Other information:	None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Acute Toxicity:	Acute Toxicity - Oral Category 4
Acute Toxicity Oral	1300
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Skin Corrosion / Irritation Category 3
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl Benzoate SDS-6162

Version: 1

STOT-repeated exposure: Based on available data the classification criteria are not met.

Aspiration hazard: Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Ingredient	CAS	LD50/ATE Oral	LD50/ATE Dermal	LC50/ATE Inhalation	LC50 Route
Methyl benzoate	93-58-3	1300	Not available	Not available	Not available

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	Not classified	-	-	-	-
IMDG	Not classified	-	-	-	-
ADR,RID,ADN	Not classified	-	-	-	-
ICAO TI	Not classified	-	-	-	-

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl Benzoate SDS-6162

Version: 1

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

None additional

Section 16. Other information

Concentration % Limits: SCI 3=10.00%

Total Fractional Values: SCI 3=10.00

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
Acute Tox. 4	Acute Toxicity - Oral Category 4
Flam. Liq. 4	Flammable Liquid, Hazard Category 4
H227	Combustible liquid.
H302	Harmful if swallowed.
H316	Causes mild skin irritation.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P264	Wash hands and other contacted skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/eye protection/face protection.
P301/312	IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth.
P332/313	If skin irritation occurs: Get medical advice/attention.
P370/378	In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
Skin Irrit. 3	Skin Corrosion / Irritation Category 3

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl diantilis FPD-2015A-1213

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: 2-Ethoxy-4-(methoxymethyl)phenol; CAS: 5595-79-9

Other identifiers: 2-Ethoxy-4-(methoxymethyl)phenol

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Acute Toxicity - Oral Category 4
Acute Toxicity - Dermal Category 5
Sensitization - Skin Category 1B
Hazardous to the Aquatic Environment - Acute Hazard Category 3
Hazardous to the Aquatic Environment - Long-term Hazard Category 3
H302, Harmful if swallowed.
H317, May cause an allergic skin reaction.
H313, May be harmful in contact with skin.
H412, Harmful to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

Hazard statements: H302, Harmful if swallowed.
H317, May cause an allergic skin reaction.
H313, May be harmful in contact with skin.
H412, Harmful to aquatic life with long lasting effects.

M factor: None

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl diantilis FPD-2015A-1213

Version: 1

Precautionary statements:

P261, Avoid breathing vapour or dust.
P264, Wash hands and other contacted skin thoroughly after handling.
P270, Do not eat, drink or smoke when using this product.
P272, Contaminated work clothing should not be allowed out of the workplace.
P273, Avoid release to the environment.
P280, Wear protective gloves/eye protection/face protection.
P301/312, IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P312, Call a POISON CENTRE or doctor/physician if you feel unwell.
P330, Rinse mouth.
P333/313, If skin irritation or rash occurs: Get medical advice/attention.
P363, Wash contaminated clothing before reuse.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: 2-Ethoxy-4-(methoxymethyl)phenol; CAS: 5595-79-9

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.
Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
Skin exposure: IF ON SKIN: Wash with plenty of soap and water.
Ingestion: IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed.
May cause an allergic skin reaction.
May be harmful in contact with skin.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl diantilis FPD-2015A-1213

Version: 1

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl diantilis FPD-2015A-1213

Version: 1

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	> 93 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information: None available

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl diantilis FPD-2015A-1213

Version: 1

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute Toxicity:	Acute Toxicity - Oral Category 4 Acute Toxicity - Dermal Category 5
Acute Toxicity Oral	500 mg/kg
Acute Toxicity Dermal	2500 mg/kg
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Sensitization - Skin Category 1B
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl diantilis FPD-2015A-1213

Version: 1

Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	Not classified	-	-	-	-
IMDG	Not classified	-	-	-	-
ADR,RID,ADN	Not classified	-	-	-	-
ICAO TI	Not classified	-	-	-	-

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

None additional

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl diantilis FPD-2015A-1213

Version: 1

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl Laitone 10% DPG 94201-19-1D10

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Methyl Laitone 10% DPG 94201-19-1D10

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

Uses advised against: Flavours

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: This material does not meet the criteria for classification under UN GHS.

2.2 Label elements

Signal word: None

Hazard statements: None

Precautionary statements: None

Pictograms: None

Other hazards: None

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl Laitone 10% DPG 94201-19-1D10

Version: 1

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	EC	%	GHS Classification
1-Oxaspiro[4.5]decan-2-one, 8-methyl-	94201-19-1	303-602-4	10.00%	Acute Tox. 5;H303

Substances with Community workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.
Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
Skin exposure: Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.
Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

None expected, see Section 4.1 for further information.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl Laitone 10% DPG 94201-19-1D10

Version: 1

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl Laitone 10% DPG 94201-19-1D10

Version: 1

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Not determined
Odour: Not determined
pH: Not determined
Initial boiling point / range: Not determined
Flash point: > 93.5 °C
Vapour pressure: Not determined
Relative density: Not determined
Solubility(ies): Not determined

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

This material does not meet the criteria for classification for health hazards under UN GHS.

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity: >5000
Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity: Not Applicable
Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity: Not Available

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl Laitone 10% DPG 94201-19-1D10

Version: 1

Inhalation Route: Not Available

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity: Not available

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: Not classified

14.2 UN Proper Shipping Name: Not classified

14.3 Transport hazard class(es): Not classified

Sub Risk: Not classified

14.4. Packing Group: Not classified

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Methyl Laitone 10% DPG 94201-19-1D10

Version: 1

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
Acute Tox. 5	Acute Toxicity - Oral Category 5
H303	May be harmful if swallowed.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Orange Terpenes (Natural) SDS-OTN

Version: 2

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Orange Terpenes (Natural) SDS-OTN(Contains:Terpenes and terpenoids, mixed sour and sweet orange oil)

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Flammable Liquid, Hazard Category 3
Skin Corrosion / Irritation Category 2
Sensitization - Skin Category 1B
Aspiration Hazard Category 1
Hazardous to the Aquatic Environment - Acute Hazard Category 2
Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H226, Flammable liquid and vapour.
H304, May be fatal if swallowed and enters airways.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H411, Toxic to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Danger

Hazard statements: H226, Flammable liquid and vapour.
H304, May be fatal if swallowed and enters airways.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Orange Terpenes (Natural) SDS-OTN

Version: 2

Precautionary statements:

H411, Toxic to aquatic life with long lasting effects.

P210, Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P210, Keep away from heat, sparks, open flames and hot surfaces. - No smoking.

P233, Keep container tightly closed.

P240, Ground/bond container and receiving equipment.

P241, Use explosion-proof electrical/ventilating/lighting/.../equipment.

P241, Use explosion-proof electrical, ventilating and lighting equipment.

P242, Use only non-sparking tools.

P243, Take precautionary measures against static discharge.

P261, Avoid breathing vapour or dust.

P264, Wash hands and other contacted skin thoroughly after handling.

P272, Contaminated work clothing should not be allowed out of the workplace.

P273, Avoid release to the environment.

P280, Wear protective gloves/eye protection/face protection.

P301/310, IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P301/330/331, If swallowed: Rinse mouth. Do not induce vomiting.

P303/361/353, IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

P321, Specific treatment (see...on this label).

P331, Do not induce vomiting.

P332, If skin irritation occurs:.

P333/313, If skin irritation or rash occurs: Get medical advice/attention.

P362, Take off contaminated clothing and wash before reuse.

P363, Wash contaminated clothing before reuse.

P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.

P391, Collect spillage.

P403/235, Store in a well-ventilated place. Keep cool.

P405, Store locked up.

P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: Hydrocarbon Concentration %: 99.0000%

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Orange Terpenes (Natural) SDS-OTN

Version: 2

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	%	GHS Classification
Terpenes and terpenoids, mixed sour and sweet orange oil	68917-57-7	100.00%	Flam. Liq. 3-Skin Irrit. 2-Skin Sens. 1-Asp. Tox 1-Aquatic Acute 2-Aquatic Chronic 2;H226-H304-H315-H317-H411

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

Skin exposure: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

Ingestion: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
If swallowed: Rinse mouth. Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

May be fatal if swallowed and enters airways.

Causes skin irritation.

May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed

Specific treatment (see...on this label).

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Orange Terpenes (Natural) SDS-OTN

Version: 2

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking.

7.2 Conditions for safe storage, including any incompatibilities:

Use explosion-proof electrical/ventilating/lighting/.../equipment.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Orange Terpenes (Natural) SDS-OTN

Version: 2

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	46 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected
9.2 Other information:	None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Orange Terpenes (Natural) SDS-OTN

Version: 2

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Skin Corrosion / Irritation Category 2
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Sensitization - Skin Category 1B
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Aspiration Hazard Category 1

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability:	Not available
12.3 Bioaccumulative potential:	Not available
12.4 Mobility in soil:	Not available
12.5 Other adverse effects:	Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Orange Terpenes (Natural) SDS-OTN

Version: 2

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	UN1197	EXTRACTS, LIQUID	3	-	III
IMDG	UN1197	EXTRACTS, LIQUID (Terpenes and terpenoids, mixed sour and sweet orange oil) MARINE POLLUTANT	3	-	III
ADR,RID,ADN	UN1197	EXTRACTS, LIQUID	3	-	III
ICAO TI	UN1197	EXTRACTS, LIQUID	3	-	III

14.5 Environmental hazards: This is classified as an environmentally hazardous substance under the UN Model Regulations. This is classified as a Marine Pollutant under the IMDG Code.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not applicable

Section 15. Regulatory information

None additional

Section 16. Other information

Concentration % Limits: SCI 2=10.00% SCI 3=1.00000000% SS 1=1.00000000% AH 1=10.10% EH A2=25.00% EH A3=2.50% EH C2=25.00% EH C3=2.50% EH C4=25.00%

Total Fractional Values: SCI 2=10.00 SCI 3=100.00 SS 1=100.00 AH 1=9.90 EH A2=4.00 EH A3=40.00 EH C2=4.00 EH C3=40.00 EH C4=4.00

Key to revisions:

2.1 Classification of the substance or mixture

Key to abbreviations:

Abbreviation	Meaning
Aquatic Acute 2	Hazardous to the Aquatic Environment - Acute Hazard Category 2
Aquatic Chronic 2	Hazardous to the Aquatic Environment - Long-term Hazard Category 2
Asp. Tox 1	Aspiration Hazard Category 1
Flam. Liq. 3	Flammable Liquid, Hazard Category 3
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Orange Terpenes (Natural) SDS-OTN

Version: 2

H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing vapour or dust.
P264	Wash hands and other contacted skin thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
P301/310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303/361/353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P331	Do not induce vomiting.
P333/313	If skin irritation or rash occurs: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P370/378	In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P391	Collect spillage.
P403/235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
Skin Irrit. 2	Skin Corrosion / Irritation Category 2
Skin Sens. 1	Sensitization - Skin Category 1

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Oranger Crystals 98-08-5

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Oranger Crystals

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Acute Toxicity - Oral Category 4
Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 2A
Specific Target Organ Toxicity (Single Exposure) Category 3
Hazardous to the Aquatic Environment - Acute Hazard Category 2
Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H302, Harmful if swallowed.
H315, Causes skin irritation.
H319, Causes serious eye irritation.
H335, May cause respiratory irritation.
H411, Toxic to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

Hazard statements: H302, Harmful if swallowed.
H315, Causes skin irritation.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Oranger Crystals 98-08-5

Version: 1

H319, Causes serious eye irritation.
H335, May cause respiratory irritation.
H411, Toxic to aquatic life with long lasting effects.

M factor: None

Precautionary statements:

P261, Avoid breathing vapour or dust.
P264, Wash hands and other contacted skin thoroughly after handling.
P270, Do not eat, drink or smoke when using this product.
P271, Use only outdoors or in a well-ventilated area.
P273, Avoid release to the environment.
P280, Wear protective gloves/eye protection/face protection.
P301/312, IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P304/340, IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312, Call a POISON CENTRE or doctor/physician if you feel unwell.
P330, Rinse mouth.
P332/313, If skin irritation occurs: Get medical advice/attention.
P337/313, If eye irritation persists: Get medical advice/attention.
P362, Take off contaminated clothing and wash before reuse.
P391, Collect spillage.
P403/233, Store in a well-ventilated place. Keep container tightly closed.
P405, Store locked up.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Oranger Crystals

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Oranger Crystals 98-08-5

Version: 1

Section 4. First-aid measures

4.1 Description of first aid measures

IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN: Wash with plenty of soap and water.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a POISON CENTRE or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Oranger Crystals 98-08-5

Version: 1

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Ensure adequate and ongoing ventilation is maintained in order to prevent build up of excessive vapour and to ensure occupational exposure limits are adhered to. If appropriate, and depending on your patterns and volumes of use, the following engineering controls may be required as additional protective measures: a) Isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant. b) Employ the use of Personal protective equipment - an approved, properly fitted respirator with organic vapour cartridges or canisters and particulate filters. c) Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. d) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Soild
Odour:	Not determined
pH:	Not determined
Initial boiling point / range:	300 °C

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Oranger Crystals 98-08-5

Version: 1

Flash point: Not determined

Vapour pressure: Not determined

Relative density: Not determined

Solubility(ies): Not determined

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity:	500 mg/kg
Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity:	Not Applicable
Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity:	Not Available
Inhalation Route:	Not Available

Refer to Section 2 for additional information.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Oranger Crystals 98-08-5

Version: 1

Section 12. Ecological information

12.1 Toxicity:

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: UN3077

14.2 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Methyl Naphthyl Ketone)

14.3 Transport hazard class(es): 9

Sub Risk: -

14.4. Packing Group: III

14.5 Environmental hazards: This is an environmentally hazardous substance.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Oranger Crystals 98-08-5

Version: 1

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Para-Cresyl Acetate (50%) (IPM) SDS-61926654

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Para-Cresyl Acetate (50%) (IPM) SDS-61926654(Contains:p-Tolyl acetate)

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Acute Toxicity - Oral Category 5
Acute Toxicity - Dermal Category 5
H303, May be harmful if swallowed.
H313, May be harmful in contact with skin.

2.2 Label elements

Signal word: Warning

Hazard statements: H303, May be harmful if swallowed.
H313, May be harmful in contact with skin.

Precautionary statements: P312, Call a POISON CENTRE or doctor/physician if you feel unwell.

Pictograms: None

2.3 Other hazards

Other hazards: Hydrocarbon Concentration %: 0.0000%

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Para-Cresyl Acetate (50%) (IPM) SDS-61926654

Version: 1

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	%	GHS Classification
p-Tolyl acetate	140-39-6	50.00%	Flam. Liq. 4-Acute Tox. 4-Acute Tox. 5;H227-H302-H313

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

- Inhalation:** Remove from exposure site to fresh air, keep at rest, and obtain medical attention.
- Eye exposure:** Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- Skin exposure:** Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.
- Ingestion:** Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

May be harmful if swallowed.

May be harmful in contact with skin.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Para-Cresyl Acetate (50%) (IPM) SDS-61926654

Version: 1

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Not determined

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product:	Para-Cresyl Acetate (50%) (IPM) SDS-61926654
Version:	1
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	> 93.5 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected
9.2 Other information:	None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Para-Cresyl Acetate (50%) (IPM) SDS-61926654

Version: 1

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Acute Toxicity:	Acute Toxicity - Oral Category 5 Acute Toxicity - Dermal Category 5
Acute Toxicity Oral	3800
Acute Toxicity Dermal	5000
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Ingredient	CAS	LD50/ATE Oral	LD50/ATE Dermal	LC50/ATE Inhalation	LC50 Route
p-Tolyl acetate	140-39-6	1900	2500	Not available	Not available

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:	Not available
12.2 Persistence and degradability:	Not available
12.3 Bioaccumulative potential:	Not available
12.4 Mobility in soil:	Not available
12.5 Other adverse effects:	Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Para-Cresyl Acetate (50%) (IPM) SDS-61926654

Version: 1

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	Not classified	-	-	-	-
IMDG	Not classified	-	-	-	-
ADR,RID,ADN	Not classified	-	-	-	-
ICAO TI	Not classified	-	-	-	-

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

None additional

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
Acute Tox. 4	Acute Toxicity - Oral Category 4
Acute Tox. 5	Acute Toxicity - Dermal Category 5
Flam. Liq. 4	Flammable Liquid, Hazard Category 4
H227	Combustible liquid.
H302	Harmful if swallowed.
H313	May be harmful in contact with skin.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P264	Wash hands and other contacted skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/eye protection/face protection.
P301/312	IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Para-Cresyl Acetate (50%) (IPM) SDS-61926654

Version: 1

P330	Rinse mouth.
P370/378	In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Peonile 6194

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Peonile 6194

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Acute Toxicity - Oral Category 4
Acute Toxicity - Dermal Category 5
Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H302, Harmful if swallowed.
H313, May be harmful in contact with skin.
H411, Toxic to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

Hazard statements: H302, Harmful if swallowed.
H313, May be harmful in contact with skin.
H411, Toxic to aquatic life with long lasting effects.

Precautionary statements: P264, Wash hands and other contacted skin thoroughly after handling.
P270, Do not eat, drink or smoke when using this product.
P273, Avoid release to the environment.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Peonile 6194

Version: 1

P301/312, IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.

P312, Call a POISON CENTRE or doctor/physician if you feel unwell.

P330, Rinse mouth.

P391, Collect spillage.

P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



Other hazards: None

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	EC	%	GHS Classification
alpha-Cyclohexylidene benzeneacetonitrile	10461-98-0	423-740-1	100.00%	Acute Tox. 4-Aquatic Acute 2-Aquatic Chronic 2;H302-H411

Substances with Community workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.

Call a POISON CENTRE or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed.

May be harmful in contact with skin.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Peonile 6194

Version: 1

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Peonile 6194

Version: 1

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Not determined

Odour: Not determined

pH: Not determined

Initial boiling point / range: Not determined

Flash point: > 93.5 °C

Vapour pressure: Not determined

Relative density: Not determined

Solubility(ies): Not determined

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Peonile 6194

Version: 1

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Harmful if swallowed.

May be harmful in contact with skin.

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity:	619
Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity:	Not Applicable
Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity:	Not Available
Inhalation Route:	Not Available

Information about hazardous ingredients in the mixture

Ingredient	CAS	EC	LD50/ATE Oral	LD50/ATE Dermal	LC50/ATE Inhalation	LC50 Route
alpha-Cyclohexylidene benzeneacetonitrile	10461-98-0	423-740-1	619	Not available	Not available	Not available

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Peonile 6194

Version: 1

Section 14. Transport information

14.1 UN number: UN3082

14.2 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(alpha-Cyclohexylidene benzeneacetonitrile)

14.3 Transport hazard class(es): 9

Sub Risk: -

14.4. Packing Group: III

14.5 Environmental hazards: This is an environmentally hazardous substance.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not applicable

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Concentration % Limits: EH A2=25.00% EH A3=2.50% EH C2=25.00% EH C3=2.50% EH C4=25.00%

Total Fractional Values: EH A2=4.00 EH A3=40.00 EH C2=4.00 EH C3=40.00 EH C4=4.00

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
Acute Tox. 4	Acute Toxicity - Oral Category 4
Aquatic Acute 2	Hazardous to the Aquatic Environment - Acute Hazard Category 2
Aquatic Chronic 2	Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H302	Harmful if swallowed.
H411	Toxic to aquatic life with long lasting effects.
P264	Wash hands and other contacted skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P301/312	IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth.
P391	Collect spillage.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Peonile 6194

Version: 1

P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
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The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with 29 CFR 1910.1200

Product: Petitgrain Paraguay 8014-17-3

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Petitgrain Paraguay 8014-17-3

Other identifiers: None

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: +1 (831) 346 7234

1.4 Emergency telephone number

Emergency phone: +1 (831) 346 7234

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Flammable Liquid, Hazard Category 4
Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 1
Sensitization - Skin Category 1
H227, Combustible liquid.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H318, Causes serious eye damage.

2.2 Label elements

Signal word: Danger

Hazard statements: H227, Combustible liquid.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H318, Causes serious eye damage.

SAFETY DATA SHEET

In accordance with 29 CFR 1910.1200

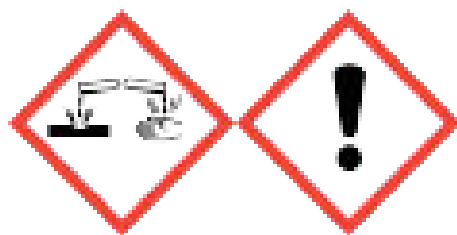
Product: Petitgrain Paraguay 8014-17-3

Version: 1

Precautionary statements:

P210, Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
 P261, Avoid breathing vapour or dust.
 P264, Wash hands and other contacted skin thoroughly after handling.
 P272, Contaminated work clothing should not be allowed out of the workplace.
 P280, Wear protective gloves/eye protection/face protection.
 P302/352, IF ON SKIN: Wash with plenty of soap and water.
 P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310, Immediately call a POISON CENTER or doctor/physician.
 P333/313, If skin irritation or rash occurs: Get medical advice/attention.
 P362, Take off contaminated clothing and wash before reuse.
 P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
 P403/235, Store in a well-ventilated place. Keep cool.
 P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



Other hazards: None

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	EC	%	GHS Classification
Linalyl acetate	115-95-7	204-116-4	20-<50%	FL 4-SCI 2-EDI 2A;H227-H315-H319
Linalool	78-70-6	201-134-4	20-<50%	FL 4-SCI 2-EDI 2A;H227-H315-H319
alpha-Terpineol	98-55-5	202-680-6	5-<10%	FL 4-SCI 2-EDI 2A;H227-H315-H319
Geranyl acetate	105-87-3	203-341-5	1-<5%	SCI 2-SS 1B;H315-H317
Geraniol	106-24-1	203-377-1	1-<5%	SCI 2-EDI 1-SS 1;H315-H317-H318
Myrcene	123-35-3	204-622-5	1-<5%	FL 3-SCI 2-EDI 2A-AH 1;H226-H304-H315-H319
Nerol	106-25-2	203-378-7	1-<5%	SCI 2-EDI 2A-SS 1B;H315-H317-H319
beta-Pinene	127-91-3	204-872-5	1-<5%	FL 3-SCI 2-SS 1B-AH 1;H226-H304-H315-H317
l-Limonene	5989-54-8	227-815-6	1-<5%	FL 3-SCI 2-SS 1B-AH 1;H226-H304-H315-H317
Terpinolene	586-62-9	209-578-0	0.1-<1%	FL 4-SS 1B-AH 1;H227-H304-H317
alpha-Pinene	80-56-8	201-291-9	0.1-<1%	FL 3-SCI 2-SS 1B-AH 1;H226-H304-H315-H317

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The exact percentage concentrations of components are being withheld as a trade secret.

Substances with Community workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye damage.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

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6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: YELLOW TO AMBER LIQUID

Odour: Not determined

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Version: 1

pH: Not determined

Initial boiling point / range: Not determined

Flash point: 66.7 °C

Vapour pressure: Not determined

Relative density: 0.8831

Solubility(ies): Not determined

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in 29 CFR 1910.1200.

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye damage.

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity: >5000

Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity: Not Applicable

Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity: Not Available

Inhalation Route: Not Available

Information about hazardous ingredients in the mixture

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Version: 1

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: UN3082

14.2 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (beta-Pinene, l-Limonene)

14.3 Transport hazard class(es): 9

Sub Risk: -

14.4. Packing Group: III

14.5 Environmental hazards: This is an environmentally hazardous substance.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

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Version: 1

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Concentration % Limits: SCI 2=11.04% EDI 1=100.00% EDI 2=8.97% SS 1=3.33%

Total Fractional Values: SCI 2=9.06 EDI 1=1.00 EDI 2=11.15 SS 1=30.00

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
AH 1	Aspiration Hazard Category 1
EDI 1	Eye Damage / Irritation Category 1
EDI 2A	Eye Damage / Irritation Category 2A
FL 3	Flammable Liquid, Hazard Category 3
FL 4	Flammable Liquid, Hazard Category 4
H226	Flammable liquid and vapour.
H227	Combustible liquid.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing vapour or dust.
P264	Wash hands and other contacted skin thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/eye protection/face protection.
P301/310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302/352	IF ON SKIN: Wash with plenty of soap and water.
P303/361/353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P331	Do not induce vomiting.

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P332/313	If skin irritation occurs: Get medical advice/attention.
P333/313	If skin irritation or rash occurs: Get medical advice/attention.
P337/313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P363	Wash contaminated clothing before reuse.
P370/378	In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
SCI 2	Skin Corrosion / Irritation Category 2
SS 1	Sensitization - Skin Category 1
SS 1B	Sensitization - Skin Category 1B

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

Version 6.0
Revision Date 11/15/2018
Print Date 06/26/2019**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : Phenethyl acetate

Product Number : W285706

Brand : Aldrich

CAS-No. : 103-45-7

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheetCompany : Sigma-Aldrich Inc.
3050 Spruce Street
ST. LOUIS MO 63103
UNITED STATES

Telephone : +1 314 771-5765

Fax : +1 800 325-5052

1.4 Emergency telephone number

Emergency Phone # : +1-703-527-3887

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

Not a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none**SECTION 3: Composition/information on ingredients****3.1 Substances**Synonyms : 2-Phenethyl acetate
2-Phenylethyl acetateFormula : C₁₀H₁₂O₂

Molecular weight : 164.20 g/mol

CAS-No. : 103-45-7
EC-No. : 203-113-5

No components need to be disclosed according to the applicable regulations.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Storage class (TRGS 510): 10: Combustible liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 480 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: 30 min

Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid, clear Colour: colourless
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	238 - 239 °C 460 - 462 °F - lit.
g) Flash point	105 °C (221 °F) - closed cup
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	1.032 g/cm ³ at 25 °C (77 °F)
n) Water solubility	No data available

- o) Partition coefficient: No data available
n-octanol/water
- p) Auto-ignition No data available
temperature
- q) Decomposition No data available
temperature
- r) Viscosity No data available
- s) Explosive properties No data available
- t) Oxidizing properties No data available

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 3,670 mg/kg

LC50 Inhalation - Rat - > 500 mg/m³

Remarks: Behavioral:Somnolence (general depressed activity). Blood:Normocytic anemia.

Nutritional and Gross Metabolic:Changes in:Body temperature decrease.

LD50 Dermal - Rabbit - 6,210 mg/kg

No data available

Skin corrosion/irritation

Skin - Rabbit

Result: Mild skin irritation - 24 h

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity

No data available

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: AJ2220000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information**12.1 Toxicity**

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information**DOT (US)**

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information**SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Phenethyl acetate	CAS-No. 103-45-7	Revision Date
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Phenethyl acetate	CAS-No. 103-45-7	Revision Date
-------------------	---------------------	---------------

New Jersey Right To Know Components

Phenethyl acetate	CAS-No. 103-45-7	Revision Date
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California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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Version: 6.0

Revision Date: 11/15/2018

Print Date: 06/26/2019

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Phenethyl alcohol FPD-2015A-2444

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Phenethyl alcohol; CAS: 60-12-8

Other identifiers: (2-Hydroxyethyl)benzene

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Flavours, Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Acute Toxicity - Oral Category 4
Acute Toxicity - Dermal Category 5
Eye Damage / Irritation Category 2A
H302, Harmful if swallowed.
H313, May be harmful in contact with skin.
H319, Causes serious eye irritation.

2.2 Label elements

Signal word: Warning

Hazard statements: H302, Harmful if swallowed.
H313, May be harmful in contact with skin.
H319, Causes serious eye irritation.

M factor: None

Precautionary statements: P264, Wash hands and other contacted skin thoroughly after handling.
P270, Do not eat, drink or smoke when using this product.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Phenethyl alcohol FPD-2015A-2444

Version: 1

P280, Wear protective gloves/eye protection/face protection.

P301/312, IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.

P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312, Call a POISON CENTRE or doctor/physician if you feel unwell.

P330, Rinse mouth.

P337/313, If eye irritation persists: Get medical advice/attention.

P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Phenethyl alcohol; CAS: 60-12-8

Section 4. First-aid measures

4.1 Description of first aid measures

IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a POISON CENTRE or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed.

May be harmful in contact with skin.

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Phenethyl alcohol FPD-2015A-2444

Version: 1

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Flavours, Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Phenethyl alcohol FPD-2015A-2444

Version: 1

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Not determined

Odour: Not determined

pH: Not determined

Initial boiling point / range: 218.2 °C

Flash point: > 93.5 °C

Vapour pressure: 0.070000

Relative density: Not determined

Solubility(ies): Not determined

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Phenethyl alcohol FPD-2015A-2444

Version: 1

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

Harmful if swallowed.

May be harmful in contact with skin.

Causes serious eye irritation.

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity:	1610 mg/kg
Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity:	2500 mg/kg
Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity:	Not Available
Inhalation Route:	Not Available

Refer to Section 2 for additional information.

Section 12. Ecological information

12.1 Toxicity: Not available

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: Not classified

14.2 UN Proper Shipping Name: Not classified

14.3 Transport hazard class(es): Not classified

Sub Risk: Not classified

14.4. Packing Group: Not classified

14.5 Environmental hazards: Not environmentally hazardous for transport

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Phenethyl alcohol FPD-2015A-2444

Version: 1

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Phenyl Ethyl Phenyl Acetate - Replacer 40% p-6203

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Phenyl Ethyl Phenyl Acetate - Replacer 40% p-6203

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Classification under Regulation (EC) No 1272/2008

Class and category of danger: Hazardous to the Aquatic Environment - Acute Hazard Category 1
Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H400, Very toxic to aquatic life.
H411, Toxic to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

Hazard statements: H400, Very toxic to aquatic life.
H411, Toxic to aquatic life with long lasting effects.

Supplemental Information: None

Precautionary statements: P273, Avoid release to the environment.
P391, Collect spillage.
P501, Dispose of contents/container to approved disposal site, in accordance with local

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Phenyl Ethyl Phenyl Acetate - Replacer 40% p-6203

Version: 1

regulations.

Pictograms:



Other hazards: None

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	EC	REACH Registration No.	%	Classification for (CLP) 1272/2008
Benzyl benzoate	120-51-4	204-402-9		60.00%	ATO 4-EH A1-EH C2; H302-H400-H411,-
Phenethyl phenylacetate	102-20-5	203-013-1		40.00%	EH C2;H411,-

Substances with Community workplace exposure limits:

Not Applicable

Substances that are persistent, bioaccumulative and toxic or very persistent and very bioaccumulative, greater than 0.1%:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

- Inhalation:** Remove from exposure site to fresh air, keep at rest, and obtain medical attention.
- Eye exposure:** Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- Skin exposure:** Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.
- Ingestion:** Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

None expected, see Section 4.1 for further information.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Phenyl Ethyl Phenyl Acetate - Replacer 40% p-6203

Version: 1

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Phenyl Ethyl Phenyl Acetate - Replacer 40% p-6203

Version: 1

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	> 93.5 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Phenyl Ethyl Phenyl Acetate - Replacer 40% p-6203

Version: 1

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in Regulation (EC) No 1272/2008 (CLP).

This material does not meet the criteria for classification for health hazards under Regulation (EC) No 1272/2008.

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	2500
Acute Toxicity Dermal	>5000
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Phenyl Ethyl Phenyl Acetate - Replacer 40% p-6203

Version: 1

Ingredient	CAS	EC	LD50/ATE Oral	LD50/ATE Dermal	LC50/ATE Inhalation	LC50 Route
Benzyl benzoate	120-51-4	204-402-9	1500	4000	Not available	Not available

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: UN3082

14.2 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Benzyl benzoate, Phenethyl phenylacetate)

14.3 Transport hazard class(es): 9

Sub Risk: -

14.4. Packing Group: III

14.5 Environmental hazards: This is an environmentally hazardous substance.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Phenyl Ethyl Phenyl Acetate - Replacer 40% p-6203

Version: 1

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Concentration % Limits: EH A1=41.67% EH C2=25.00% EH C3=2.50% EH C4=25.00%

Total Fractional Values: EH A1=2.40 EH C2=4.00 EH C3=40.00 EH C4=4.00

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
ATO 4	Acute Toxicity - Oral Category 4
EH A1	Hazardous to the Aquatic Environment - Acute Hazard Category 1
EH C2	Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H302	Harmful if swallowed.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
P264	Wash hands and other contacted skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P301/312	IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth.
P391	Collect spillage.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Rose Oxide (Racemic) SDS-6217

Version: 2

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Rose Oxide (Racemic) SDS-6217(Contains:Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran)

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Flammable Liquid, Hazard Category 4
Acute Toxicity - Oral Category 5
Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 2A
Toxic to Reproduction Category 2
Hazardous to the Aquatic Environment - Acute Hazard Category 3
Hazardous to the Aquatic Environment - Long-term Hazard Category 3
H227, Combustible liquid.
H303, May be harmful if swallowed.
H315, Causes skin irritation.
H319, Causes serious eye irritation.
H320, Causes eye irritation.
H361, Suspected of damaging fertility or the unborn child (exposure route).
H402, Harmful to aquatic life.
H412, Harmful to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Rose Oxide (Racemic) SDS-6217

Version: 2

Hazard statements: H227, Combustible liquid.
H303, May be harmful if swallowed.
H315, Causes skin irritation.
H319, Causes serious eye irritation.
H320, Causes eye irritation.
H361, Suspected of damaging fertility or the unborn child (exposure route).
H402, Harmful to aquatic life.
H412, Harmful to aquatic life with long lasting effects.

Precautionary statements: P201, Obtain special instructions before use.
P202, Do not handle until all safety precautions have been read and understood.
P210, Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P264, Wash hands and other contacted skin thoroughly after handling.
P273, Avoid release to the environment.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308/313, IF exposed or concerned: Get medical advice/attention.
P312, Call a POISON CENTRE or doctor/physician if you feel unwell.
P337/313, If eye irritation persists: Get medical advice/attention.
P362, Take off contaminated clothing and wash before reuse.
P332/313, If skin irritation occurs: Get medical advice/attention.
P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235, Store in a well-ventilated place. Keep cool.
P405, Store locked up.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: Hydrocarbon Concentration %: 0.0000%

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Rose Oxide (Racemic) SDS-6217

Version: 2

Name	CAS	%	GHS Classification
Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran	16409-43-1	100.00%	Flam. Liq. 4-Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-Repr. 2-Aquatic Acute 3;H227-H303-H315-H319-H361-H402

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin exposure: IF ON SKIN: Wash with plenty of soap and water.

Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

May be harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

Causes eye irritation.

Suspected of damaging fertility or the unborn child (exposure route).

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Rose Oxide (Racemic) SDS-6217

Version: 2

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Not determined

Odour: Not determined

Odour threshold: Not determined

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product:	Rose Oxide (Racemic) SDS-6217
Version:	2
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	63.9 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected
9.2 Other information:	None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Rose Oxide (Racemic) SDS-6217

Version: 2

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Acute Toxicity: Acute Toxicity - Oral Category 5
Acute Toxicity Oral 4300
Acute Toxicity Dermal Not Applicable
Acute Toxicity Inhalation Not Available
Skin corrosion/irritation: Skin Corrosion / Irritation Category 2
Serious eye damage/irritation: Eye Damage / Irritation Category 2A
Respiratory or skin sensitisation: Based on available data the classification criteria are not met.
Germ cell mutagenicity: Based on available data the classification criteria are not met.
Carcinogenicity: Based on available data the classification criteria are not met.
Reproductive toxicity: Toxic to Reproduction Category 2
STOT-single exposure: Based on available data the classification criteria are not met.
STOT-repeated exposure: Based on available data the classification criteria are not met.
Aspiration hazard: Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Ingredient	CAS	LD50/ATE Oral	LD50/ATE Dermal	LC50/ATE Inhalation	LC50 Route
Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran	16409-43-1	4300	Not available	Not available	Not available

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Rose Oxide (Racemic) SDS-6217

Version: 2

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	Not classified	-	-	-	-
IMDG	Not classified	-	-	-	-
ADR,RID,ADN	Not classified	-	-	-	-
ICAO TI	Not classified	-	-	-	-

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

None additional

Section 16. Other information

Concentration % Limits: SCI 2=10.00% SCI 3=1.00000000% EDI 2A=10.00% REP 2=3.00% EH A3=25.00%

Total Fractional Values: SCI 2=10.00 SCI 3=100.00 EDI 2A=10.00 REP 2=33.33 EH A3=4.00

Key to revisions:

1.2 Relevant identified uses of the substance of mixture and uses advised against

Key to abbreviations:

Abbreviation	Meaning
Acute Tox. 5	Acute Toxicity - Oral Category 5
Aquatic Acute 3	Hazardous to the Aquatic Environment - Acute Hazard Category 3
Eye Irrit. 2A	Eye Damage / Irritation Category 2A
Flam. Liq. 4	Flammable Liquid, Hazard Category 4
H227	Combustible liquid.
H303	May be harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H361	Suspected of damaging fertility or the unborn child (exposure route).
H402	Harmful to aquatic life.
P202	Do not handle until all safety precautions have been read and understood.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Rose Oxide (Racemic) SDS-6217

Version: 2

P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P264	Wash hands and other contacted skin thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
P302/352	IF ON SKIN: Wash with plenty of soap and water.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308/313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.
P332/313	If skin irritation occurs: Get medical advice/attention.
P337/313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P370/378	In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
Repr. 2	Toxic to Reproduction Category 2
Skin Irrit. 2	Skin Corrosion / Irritation Category 2

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Stemone SDS-6224

Version: 2

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Stemone SDS-6224(Contains:5-Methyl-3-heptanone oxime)

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Acute Toxicity - Oral Category 5
Acute Toxicity - Dermal Category 5
Skin Corrosion / Irritation Category 3
Hazardous to the Aquatic Environment - Acute Hazard Category 3
Hazardous to the Aquatic Environment - Long-term Hazard Category 3
H227, Combustible liquid.
H303, May be harmful if swallowed.
H313, May be harmful in contact with skin.
H316, Causes mild skin irritation.
H402, Harmful to aquatic life.
H412, Harmful to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

Hazard statements: H227, Combustible liquid.
H303, May be harmful if swallowed.
H313, May be harmful in contact with skin.
H316, Causes mild skin irritation.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Stemone SDS-6224

Version: 2

Precautionary statements:

H402, Harmful to aquatic life.
H412, Harmful to aquatic life with long lasting effects.
P264, Wash hands and other contacted skin thoroughly after handling.
P273, Avoid release to the environment.
P280, Wear protective gloves/eye protection/face protection.
P301/312, IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308/313, IF exposed or concerned: Get medical advice/attention.
P312, Call a POISON CENTRE or doctor/physician if you feel unwell.
P333/313, If skin irritation or rash occurs: Get medical advice/attention.
P332/313, If skin irritation occurs: Get medical advice/attention.
P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P403/235, Store in a well-ventilated place. Keep cool.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: Hydrocarbon Concentration %: 0.0000%

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	%	GHS Classification
5-Methyl-3-heptanone oxime	22457-23-4	100.00%	Acute Tox. 5-Skin Irrit. 3;H303-H316

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

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Product: Stemone SDS-6224

Version: 2

Eye exposure: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin exposure: IF ON SKIN: Wash with plenty of soap and water.

Ingestion: IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

May be harmful if swallowed.

May be harmful in contact with skin.

Causes mild skin irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving

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Product: Stemone SDS-6224

Version: 2

equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	93.3 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined

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Product:	Stemone SDS-6224
Version:	2
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected
9.2 Other information:	None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Acute Toxicity:	Acute Toxicity - Oral Category 5 Acute Toxicity - Dermal Category 5
Acute Toxicity Oral	3500
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Skin Corrosion / Irritation Category 3
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.

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In accordance with UN GHS latest edition

Product: Stemone SDS-6224

Version: 2

STOT-repeated exposure: Based on available data the classification criteria are not met.

Aspiration hazard: Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Ingredient	CAS	LD50/ATE Oral	LD50/ATE Dermal	LC50/ATE Inhalation	LC50 Route
5-Methyl-3-heptanone oxime	22457-23-4	3500	Not available	Not available	Not available

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	Not classified	-	-	-	-
IMDG	Not classified	-	-	-	-
ADR,RID,ADN	Not classified	-	-	-	-
ICAO TI	Not classified	-	-	-	-

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

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In accordance with UN GHS latest edition

Product: Stemone SDS-6224

Version: 2

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

None additional

Section 16. Other information

Concentration % Limits: SCI 3=10.00%

Total Fractional Values: SCI 3=10.00

Key to revisions:

2.1 Classification of the substance or mixture

Key to abbreviations:

Abbreviation	Meaning
Acute Tox. 5	Acute Toxicity - Oral Category 5
H303	May be harmful if swallowed.
H316	Causes mild skin irritation.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.
P332/313	If skin irritation occurs: Get medical advice/attention.
Skin Irrit. 3	Skin Corrosion / Irritation Category 3

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Styrallyl Acetate FPD-2015A-2677

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: alpha-Methylbenzyl acetate; CAS: 93-92-5

Other identifiers: 1-Phenylethyl acetate

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product uses: Flavours

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Classification under Regulation (EC) No 1272/2008

Class and category of danger: This material does not meet the criteria for classification under Regulation (EC) No 1272/2008.

2.2 Label elements

Classification under Regulation (EC) No 1272/2008

Signal word: None

Hazard statements: None

M factor: None

Supplemental Information: None

Precautionary statements: None

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Styrallyl Acetate FPD-2015A-2677

Version: 1

Pictograms: None

Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: alpha-Methylbenzyl acetate; CAS: 93-92-5

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

Skin exposure: Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.

Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

None expected, see Section 4.1 for further information.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Styrallyl Acetate FPD-2015A-2677

Version: 1

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Flavours: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Styrallyl Acetate FPD-2015A-2677

Version: 1

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	92 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Styrallyl Acetate FPD-2015A-2677

Version: 1

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This material does not meet the criteria for classification for health hazards under Regulation (EC) No 1272/2008.

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:	Not available
12.2 Persistence and degradability:	Not available
12.3 Bioaccumulative potential:	Not available
12.4 Mobility in soil:	Not available
12.5 Results of PBT and vPvB assessment:	
This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.	
12.6 Other adverse effects:	Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Styrallyl Acetate FPD-2015A-2677

Version: 1

Section 14. Transport information

14.1 UN number: Not classified
14.2 UN Proper Shipping Name: -
14.3 Transport hazard class(es): Not classified
Sub Risk: Not classified
14.4. Packing Group: Not classified
14.5 Environmental hazards: Not environmentally hazardous for transport
14.6 Special precautions for user: None additional
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Tetrahydrolinalool FPD-2015A-2577

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Tetrahydrolinalool; CAS: 78-69-3

Other identifiers: 2,6-Dimethyl-6-octanol

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Flammable Liquid, Hazard Category 4
Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 2A
Sensitization - Skin Category 1
Hazardous to the Aquatic Environment - Acute Hazard Category 2
Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H227, Combustible liquid.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H319, Causes serious eye irritation.
H411, Toxic to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

Hazard statements: H227, Combustible liquid.
H315, Causes skin irritation.

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In accordance with UN GHS latest edition

Product: Tetrahydrolinalool FPD-2015A-2577

Version: 1

H317, May cause an allergic skin reaction.
H319, Causes serious eye irritation.
H411, Toxic to aquatic life with long lasting effects.

M factor: None

Precautionary statements:

P210, Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P261, Avoid breathing vapour or dust.
P264, Wash hands and other contacted skin thoroughly after handling.
P272, Contaminated work clothing should not be allowed out of the workplace.
P273, Avoid release to the environment.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333/313, If skin irritation or rash occurs: Get medical advice/attention.
P337/313, If eye irritation persists: Get medical advice/attention.
P362, Take off contaminated clothing and wash before reuse.
P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P391, Collect spillage.
P403/235, Store in a well-ventilated place. Keep cool.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Tetrahydrolinalool; CAS: 78-69-3

Section 4. First-aid measures

4.1 Description of first aid measures

IF ON SKIN: Wash with plenty of soap and water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Tetrahydrolinalool FPD-2015A-2577

Version: 1

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Tetrahydrolinalool FPD-2015A-2577

Version: 1

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Not determined

Odour: Not determined

pH: Not determined

Initial boiling point / range: Not determined

Flash point: 77 °C

Vapour pressure: Not determined

Relative density: Not determined

Solubility(ies): Not determined

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Tetrahydrolinalool FPD-2015A-2577

Version: 1

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity: Not Applicable

Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity: Not Applicable

Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity: Not Available

Inhalation Route: Not Available

Refer to Section 2 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects: Not available

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Tetrahydrolinalool FPD-2015A-2577

Version: 1

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

- 14.1 UN number:** Not classified
14.2 UN Proper Shipping Name: Not classified
14.3 Transport hazard class(es): Not classified
Sub Risk: Not classified
14.4. Packing Group: Not classified
14.5 Environmental hazards: This is an environmentally hazardous substance.
14.6 Special precautions for user: None additional
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Toscanol 6232

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Toscanol 6232(Contains:1-Cyclopropylmethyl-4-methoxybenzene)

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Acute Toxicity - Oral Category 5
Acute Toxicity - Dermal Category 5
Skin Corrosion / Irritation Category 3
Eye Damage / Irritation Category 2
Sensitization - Skin Category 1
Hazardous to the Aquatic Environment - Acute Hazard Category 2
Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H303, May be harmful if swallowed.
H317, May cause an allergic skin reaction.
H313, May be harmful in contact with skin.
H316, Causes mild skin irritation.
H319, Causes serious eye irritation.
H411, Toxic to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

Hazard statements: H303, May be harmful if swallowed.
H317, May cause an allergic skin reaction.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Toscanol 6232

Version: 1

H313, May be harmful in contact with skin.
H316, Causes mild skin irritation.
H319, Causes serious eye irritation.
H411, Toxic to aquatic life with long lasting effects.

Precautionary statements:

P261, Avoid breathing vapour or dust.
P264, Wash hands and other contacted skin thoroughly after handling.
P272, Contaminated work clothing should not be allowed out of the workplace.
P273, Avoid release to the environment.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312, Call a POISON CENTRE or doctor/physician if you feel unwell.
P333/313, If skin irritation or rash occurs: Get medical advice/attention.
P337/313, If eye irritation persists: Get medical advice/attention.
P363, Wash contaminated clothing before reuse.
P391, Collect spillage.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	%	GHS Classification
1-Cyclopropylmethyl-4-methoxybenzene	16510-27-3	100.00%	Skin Irrit. 3-Eye Irrit. 2A-Skin Sens. 1B-Aquatic Acute 2-Aquatic Chronic 2;H317-H316-H319-H411

Substances with workplace exposure limits, not listed above:

Not Applicable

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Toscanol 6232

Version: 1

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin exposure: IF ON SKIN: Wash with plenty of soap and water.

Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

May be harmful if swallowed.

May cause an allergic skin reaction.

May be harmful in contact with skin.

Causes mild skin irritation.

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Toscanol 6232

Version: 1

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	> 93.5 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Toscanol 6232

Version: 1

Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected
9.2 Other information:	None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Acute Toxicity:	Acute Toxicity - Oral Category 5 Acute Toxicity - Dermal Category 5
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Skin Corrosion / Irritation Category 3

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Toscanol 6232

Version: 1

Serious eye damage/irritation: Eye Damage / Irritation Category 2
Respiratory or skin sensitisation: Sensitization - Skin Category 1
Germ cell mutagenicity: Based on available data the classification criteria are not met.
Carcinogenicity: Based on available data the classification criteria are not met.
Reproductive toxicity: Based on available data the classification criteria are not met.
STOT-single exposure: Based on available data the classification criteria are not met.
STOT-repeated exposure: Based on available data the classification criteria are not met.
Aspiration hazard: Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-Cyclopropylmethyl-4-methoxybenzene)	9	-	III
IMDG	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-Cyclopropylmethyl-4-methoxybenzene) MARINE POLLUTANT	9	-	III

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Toscanol 6232

Version: 1

ADR,RID,ADN	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-Cyclopropylmethyl-4-methoxybenzene)	9	-	III
IATA, DOT Non-Bulk	-	Not Regulated	-	-	-

14.5 Environmental hazards: This is classified as an environmentally hazardous substance under the UN Model Regulations. This is classified as a Marine Pollutant under the IMDG Code.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable

Section 15. Regulatory information

None additional

Section 16. Other information

Concentration % Limits: EH A2=25.00% EH A3=2.50% EH C2=25.00% EH C3=2.50% EH C4=25.00% SCI 3=10.00% EDI 2A=10.00% SS 1=1.00000000%

Total Fractional Values: EH A2=4.00 EH A3=40.00 EH C2=4.00 EH C3=40.00 EH C4=4.00 SCI 3=10.00 EDI 2A=10.00 SS 1=100.00

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
Aquatic Acute 2	Hazardous to the Aquatic Environment - Acute Hazard Category 2
Aquatic Chronic 2	Hazardous to the Aquatic Environment - Long-term Hazard Category 2
Eye Irrit. 2A	Eye Damage / Irritation Category 2A
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
P261	Avoid breathing vapour or dust.
P264	Wash hands and other contacted skin thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
P302/352	IF ON SKIN: Wash with plenty of soap and water.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Toscanol 6232

Version: 1

P333/313	If skin irritation or rash occurs: Get medical advice/attention.
P337/313	If eye irritation persists: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
Skin Irrit. 3	Skin Corrosion / Irritation Category 3
Skin Sens. 1B	Sensitization - Skin Category 1B

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ultrazur 502682U

Version: 2

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Ultrazur

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Flammable Liquid, Hazard Category 4
Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 1
Sensitization - Skin Category 1
Hazardous to the Aquatic Environment - Acute Hazard Category 2
Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H227, Combustible liquid.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H318, Causes serious eye damage.
H411, Toxic to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Danger

Hazard statements: H227, Combustible liquid.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H318, Causes serious eye damage.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ultrazur 502682U

Version: 2

H411, Toxic to aquatic life with long lasting effects.

M factor: None

Precautionary statements:

P210, Keep away from heat, sparks, open flames and hot surfaces. - No smoking.

P261, Avoid breathing vapour or dust.

P264, Wash hands and other contacted skin thoroughly after handling.

P272, Contaminated work clothing should not be allowed out of the workplace.

P273, Avoid release to the environment.

P280, Wear protective gloves/eye protection/face protection.

P302/352, IF ON SKIN: Wash with plenty of soap and water.

P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310, Immediately call a POISON CENTER or doctor/physician.

P333/313, If skin irritation or rash occurs: Get medical advice/attention.

P362, Take off contaminated clothing and wash before reuse.

P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.

P391, Collect spillage.

P403/235, Store in a well-ventilated place. Keep cool.

P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Ultrazur

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.

Eye exposure: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin exposure: IF ON SKIN: Wash with plenty of soap and water.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ultrazur 502682U

Version: 2

Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye damage.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ultrazur 502682U

Version: 2

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	77.8 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ultrazur 502682U

Version: 2

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Skin Corrosion / Irritation Category 2
Serious eye damage/irritation:	Eye Damage / Irritation Category 1
Respiratory or skin sensitisation:	Sensitization - Skin Category 1
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ultrazur 502682U

Version: 2

Section 12. Ecological information

12.1 Toxicity:

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (5-Cyclohexadecen-1-one,2,4-Dimethyl-2-(1,1,4,4-tetramethyltetralin-6-yl)-1,3 dioxolane)	-	-	-
IMDG	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (5-Cyclohexadecen-1-one,2,4-Dimethyl-2-(1,1,4,4-tetramethyltetralin-6-yl)-1,3 dioxolane)	-	-	-
ADR,RID,ADN	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (5-Cyclohexadecen-1-one,2,4-Dimethyl-2-(1,1,4,4-tetramethyltetralin-6-yl)-1,3 dioxolane)	-	-	-
IATA DOT Non-Bulk	Not classified	-	-	-	-

14.5 Environmental hazards: This is classified as an environmentally hazardous substance under the UN Model Regulations. This is classified as a Marine Pollutant under the IMDG Code.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

None additional

Section 16. Other information

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Ultrazur 502682U

Version: 2

Key to revisions:

2.1 Classification of the substance or mixture

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: UNDECAVERTOL FPD-2015A-1480

Version: 2

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: UNDECAVERTOL; CAS: 81782-77-6

Other identifiers: 3-Decen-5-ol, 4-methyl-

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Classification under Regulation (EC) No 1272/2008

Class and category of danger: Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H411, Toxic to aquatic life with long lasting effects.

2.2 Label elements

Classification under Regulation (EC) No 1272/2008

Signal word: None

Hazard statements: H411, Toxic to aquatic life with long lasting effects.

M factor: 1

Supplemental Information: None

Precautionary statements: P273, Avoid release to the environment.
P391, Collect spillage.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: UNDECAVERTOL FPD-2015A-1480

Version: 2

P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: 4-Methyl-3-decen-5-ol; CAS: 81782-77-6

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.
Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
Skin exposure: Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.
Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

None expected, see Section 4.1 for further information.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: UNDECAVERTOL FPD-2015A-1480

Version: 2

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: UNDECAVERTOL FPD-2015A-1480

Version: 2

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	83 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: UNDECAVERTOL FPD-2015A-1480

Version: 2

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This material does not meet the criteria for classification for health hazards under Regulation (EC) No 1272/2008.

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: UNDECAVERTOL FPD-2015A-1480

Version: 2

12.6 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: UN3082

14.2 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4-Methyl-3-decen-5-ol)

14.3 Transport hazard class(es): 9

Sub Risk: -

14.4. Packing Group: III

14.5 Environmental hazards: This is an environmentally hazardous substance.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

Classification under Regulation (EC) No 1272/2008

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Vanillin Crystals (Synthetic) FPD-2015A-2626

Version: 2

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Vanillin Crystals (Synthetic) ; CAS: 121-33-5

Other identifiers: 2-Methoxy-4-formylphenol

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product uses:

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Classification under Regulation (EC) No 1272/2008

Class and category of danger: Eye Damage / Irritation Category 2
H319, Causes serious eye irritation.

2.2 Label elements

Classification under Regulation (EC) No 1272/2008

Signal word: Warning

Hazard statements: H319, Causes serious eye irritation.

M factor: None

Supplemental Information: None

Precautionary statements: P264, Wash hands and other contacted skin thoroughly after handling.
P280, Wear protective gloves/eye protection/face protection.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Vanillin Crystals (Synthetic) FPD-2015A-2626

Version: 2

P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337/313, If eye irritation persists: Get medical advice/attention.

Pictograms:



Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Vanillin; CAS: 121-33-5

Section 4. First-aid measures

4.1 Description of first aid measures

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Vanillin Crystals (Synthetic) FPD-2015A-2626

Version: 2

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Vanillin Crystals (Synthetic) FPD-2015A-2626

Version: 2

systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	160 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Vanillin Crystals (Synthetic) FPD-2015A-2626

Version: 2

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	3500
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Eye Damage / Irritation Category 2
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:	Not available
12.2 Persistence and degradability:	Not available
12.3 Bioaccumulative potential:	Not available
12.4 Mobility in soil:	Not available
12.5 Results of PBT and vPvB assessment:	
This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.	
12.6 Other adverse effects:	Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Vanillin Crystals (Synthetic) FPD-2015A-2626

Version: 2

Section 14. Transport information

14.1 UN number: Not classified
14.2 UN Proper Shipping Name: -
14.3 Transport hazard class(es): Not classified
Sub Risk: Not classified
14.4. Packing Group: Not classified
14.5 Environmental hazards: Not environmentally hazardous for transport
14.6 Special precautions for user: None additional
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
None additional

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

Classification under Regulation (EC) No 1272/2008

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Velvione SDS-6238

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Velvione SDS-6238

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Acute Toxicity - Oral Category 5
Hazardous to the Aquatic Environment - Acute Hazard Category 1
Hazardous to the Aquatic Environment - Long-term Hazard Category 1
H303, May be harmful if swallowed.
H400, Very toxic to aquatic life.
H410, Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

Hazard statements: H303, May be harmful if swallowed.
H400, Very toxic to aquatic life.
H410, Very toxic to aquatic life with long lasting effects.

Precautionary statements: P273, Avoid release to the environment.
P301/312, IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P304/341, IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P391, Collect spillage.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Velvione SDS-6238

Version: 1

Pictograms:



2.3 Other hazards

Other hazards: Hydrocarbon Concentration %: 0.0000%

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Not Applicable

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

Skin exposure: Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.

Ingestion: IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

May be harmful if swallowed.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Velvione SDS-6238

Version: 1

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Velvione SDS-6238

Version: 1

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	> 93.3 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Velvione SDS-6238

Version: 1

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Acute Toxicity:	Acute Toxicity - Oral Category 5
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Velvione SDS-6238

Version: 1

Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	9	-	III
IMDG	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	9	-	III
ADR,RID,ADN	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	9	-	III
ICAO TI	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	9	-	III

14.5 Environmental hazards: This is classified as an environmentally hazardous substance under the UN Model Regulations. This is classified as a Marine Pollutant under the IMDG Code.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable

Section 15. Regulatory information

None additional

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Triethyl Citrate (Natural) 8068

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Triethyl Citrate (Natural) 8068

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Flavours, Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: This material does not meet the criteria for classification under UN GHS

2.2 Label elements

Signal word: None

Hazard statements: None

Precautionary statements: None

Pictograms: None

2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Triethyl Citrate (Natural) 8068

Version: 1

Name	CAS	%	GHS Classification
Triethyl citrate	77-93-0	100.00%	Acute Tox. 5;H303

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

- Inhalation:** Remove from exposure site to fresh air, keep at rest, and obtain medical attention.
- Eye exposure:** Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- Skin exposure:** Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.
- Ingestion:** Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

None expected, see Section 4.1 for further information.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Triethyl Citrate (Natural) 8068

Version: 1

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Flavours, Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	294 °C
Flash point:	> 93.5 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Triethyl Citrate (Natural) 8068

Version: 1

Upper/lower flammability or explosive limits: Product does not present an explosion hazard
Vapour pressure: Not determined
Vapour density: 9.6
Relative density: Not determined
Solubility(ies): Not determined
Partition coefficient: n-octanol/water: Not determined
Auto-ignition temperature: Not determined
Decomposition temperature: Not determined
Viscosity: Not determined
Explosive properties: Not expected
Oxidising properties: Not expected
9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

This material does not meet the criteria for classification for health hazards under UN GHS

Acute Toxicity: Based on available data the classification criteria are not met.
Acute Toxicity Oral 2500
Acute Toxicity Dermal Not Applicable
Acute Toxicity Inhalation Not Available

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Triethyl Citrate (Natural) 8068

Version: 1

Skin corrosion/irritation: Based on available data the classification criteria are not met.
Serious eye damage/irritation: Based on available data the classification criteria are not met.
Respiratory or skin sensitisation: Based on available data the classification criteria are not met.
Germ cell mutagenicity: Based on available data the classification criteria are not met.
Carcinogenicity: Based on available data the classification criteria are not met.
Reproductive toxicity: Based on available data the classification criteria are not met.
STOT-single exposure: Based on available data the classification criteria are not met.
STOT-repeated exposure: Based on available data the classification criteria are not met.
Aspiration hazard: Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Ingredient	CAS	LD50/ATE Oral	LD50/ATE Dermal	LC50/ATE Inhalation	LC50 Route
Triethyl citrate	77-93-0	2500	Not available	Not available	Not available

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity: Not available
12.2 Persistence and degradability: Not available
12.3 Bioaccumulative potential: Not available
12.4 Mobility in soil: Not available
12.5 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	Not classified	-	-	-	-
IMDG	Not classified	-	-	-	-
ADR,RID,ADN	Not classified	-	-	-	-

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Triethyl Citrate (Natural) 8068

Version: 1

ICAO TI	Not classified	-	-	-	-
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14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

None additional

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Abbreviation	Meaning
Acute Tox. 5	Acute Toxicity - Oral Category 5
H303	May be harmful if swallowed.
Not Class.	Not classified according to GHS
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Isopropyl Myristate SDS-6654

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Isopropyl Myristate SDS-6654

Other identifiers: None

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: This material does not meet the criteria for classification under UN GHS

2.2 Label elements

Signal word: None

Hazard statements: None

Precautionary statements: P264, Wash hands and other contacted skin thoroughly after handling.
P301/310, IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301/330/331, If swallowed: Rinse mouth. Do not induce vomiting.
P303/361/353, IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304/312, If inhaled: call a POISON CENTRE or doctor/physician if you feel unwell.
P304/341, IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370/378, In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P420, Store away from other materials.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Isopropyl Myristate SDS-6654

Version: 1

Pictograms: None

2.3 Other hazards

Other hazards: Hydrocarbon Concentration %: 0.0000%

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Not Applicable

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

- Inhalation:** If inhaled: call a POISON CENTRE or doctor/physician if you feel unwell.
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Eye exposure:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Skin exposure:** IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
- Ingestion:** IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
If swallowed: Rinse mouth. Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

None expected, see Section 4.1 for further information.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Isopropyl Myristate SDS-6654

Version: 1

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material.

Also refer to Sections 2 and 7.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Isopropyl Myristate SDS-6654

Version: 1

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	165.5 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Isopropyl Myristate SDS-6654

Version: 1

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

This material does not meet the criteria for classification for health hazards under UN GHS

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:	Not available
12.2 Persistence and degradability:	Not available
12.3 Bioaccumulative potential:	Not available
12.4 Mobility in soil:	Not available
12.5 Other adverse effects:	Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Isopropyl Myristate SDS-6654

Version: 1

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	Not classified	-	-	-	-
IMDG	Not classified	-	-	-	-
ADR,RID,ADN	Not classified	-	-	-	-
ICAO TI	Not classified	-	-	-	-

14.5 Environmental hazards: Not environmentally hazardous for transport

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not classified

Section 15. Regulatory information

None additional

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Dipropylene glycol FPD-2015A-1911

Version: 1

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Dipropylene glycol; CAS: 110-98-5

Other identifiers: 1,1'-Dimethyldiethylene glycol

1.2 Relevant identified uses of the substance of mixture and uses advised against

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Perfumer's Apprentice

Company address: 170 Technology Circle
Scotts Valley
CA 95066
USA

Contact: Elisabeth Hanson

E-Mail address: regulatory@perfumersapprentice.com

Company phone: (831)316-7137

1.4 Emergency telephone number

Emergency phone: ChemTel:1(800)255-3924, 01(813)248-0585 MIS6760377

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Classification under Regulation (EC) No 1272/2008

Class and category of danger: Not classified according to GHS

2.2 Label elements

Classification under Regulation (EC) No 1272/2008

Signal word: None

Hazard statements: None

M factor: None

Supplemental Information: None

Precautionary statements: None

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Dipropylene glycol FPD-2015A-1911

Version: 1

Pictograms: None

2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.1 Substances

Product identifier: Dipropylene glycol; CAS: 110-98-5

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air, keep at rest, and obtain medical attention.
Eye exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
Skin exposure: Remove contaminated clothes. Wash thoroughly with soap and water. Contact physician if irritation persists.
Ingestion: Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

None expected, see Section 4.1 for further information.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Dipropylene glycol FPD-2015A-1911

Version: 1

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Dipropylene glycol FPD-2015A-1911

Version: 1

systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Not determined
Odour:	Not determined
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	> 93 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	Not determined
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information: None available

Section 10. Stability and reactivity

10.1 Reactivity:

Presents no significant reactivity hazard, by itself or in contact with water.

10.2 Chemical stability:

Good stability under normal storage conditions.

10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Dipropylene glycol FPD-2015A-1911

Version: 1

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This material does not meet the criteria for classification for health hazards under Regulation (EC) No 1272/2008.

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	Not Applicable
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Based on available data the classification criteria are not met.
Serious eye damage/irritation:	Based on available data the classification criteria are not met.
Respiratory or skin sensitisation:	Based on available data the classification criteria are not met.
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Not Applicable

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity:	Not available
12.2 Persistence and degradability:	Not available
12.3 Bioaccumulative potential:	Not available
12.4 Mobility in soil:	Not available
12.5 Results of PBT and vPvB assessment:	
This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.	
12.6 Other adverse effects:	Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Dipropylene glycol FPD-2015A-1911

Version: 1

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

14.1 UN number: Not classified
14.2 UN Proper Shipping Name: -
14.3 Transport hazard class(es): Not classified
Sub Risk: Not classified
14.4. Packing Group: Not classified
14.5 Environmental hazards: Not environmentally hazardous for transport
14.6 Special precautions for user: None additional
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:
Not classified

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
None additional
15.2 Chemical Safety Assessment
A Chemical Safety Assessment has not been carried out for this product.

Section 16. Other information

Key to revisions:

Not applicable

Key to abbreviations:

Not applicable

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.