

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Fructose SDS-6088

Version: 1

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

1.1 Product Identifier

Product identifier: Fructose SDS-6088

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
Specific Target Organ Toxicity (Single Exposure) Category 3
H227, Combustible liquid.
H315, Causes skin irritation.
H319, Causes serious eye irritation.
H335, May cause respiratory irritation.

2.2 Label elements

Signal word: Warning

Hazard statements: H227, Combustible liquid.
H315, Causes skin irritation.
H319, Causes serious eye irritation.
H335, May cause respiratory irritation.

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

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P271, Use only outdoors or in a well-ventilated area.
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.
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.
P403/233, 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
Ethyl 2-methyl-1,3-dioxolane-2-acetate	6413-10-1	100.00%	Flam. Liq. 4-Skin Irrit. 3;H227-H316

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: 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

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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.

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.

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

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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
Flash point:	Not determined
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

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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: 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.

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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

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.

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

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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
Flam. Liq. 4	Flammable Liquid, Hazard Category 4
H227	Combustible liquid.
H316	Causes mild skin irritation.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P280	Wear protective gloves/eye protection/face protection.
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.