

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Cola Flavor 600144

Version: 3

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

1.1 Product Identifier

Product identifier: Cola Flavor 600144(Contains:Cinnamaldehyde, Ethyl alcohol, beta-Pinene, d-Limonene)

Other identifiers: None

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

Classification under Regulation (EC) No 1272/2008

Class and category of danger: Flammable Liquid, Hazard Category 3

Acute Toxicity - Inhalation Category 4

Skin Corrosion / Irritation Category 2

Eye Damage / Irritation Category 2

Sensitization - Skin Category 1

Aspiration Hazard Category 1

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.

H319, Causes serious eye irritation.

H332, Harmful if inhaled.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Cola Flavor 600144

Version: 3

2.2 Label elements

Classification under Regulation (EC) No 1272/2008

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.
H319, Causes serious eye irritation.
H332, Harmful if inhaled.

Supplemental Information: EUH208, Contains Citral, alpha-Pinene. May produce an allergic reaction.

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.
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.
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.
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.
P331, Do not induce vomiting.
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.
P405, Store locked up.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Cola Flavor 600144

Version: 3

Pictograms:



2.3 Other hazards

Other hazards: None

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

| Name | CAS | EC | REACH Registration No. | % | Classification for (CLP) 1272/2008 |
|--------------------|-----------|-----------|------------------------|--------|---|
| Ethyl alcohol | 64-17-5 | 200-578-6 | | 60-70% | Flam. Liq. 2-Eye Irrit. 2; H225-H319,- |
| d-Limonene | 5989-27-5 | 227-813-5 | | 10-20% | Flam. Liq. 3-Skin Irrit. 2-Skin Sens. 1B-Asp. Tox 1-Aquatic Acute 1-Aquatic Chronic 1; H226-H304-H315-H317-H410,- |
| Cinnamaldehyde | 104-55-2 | 203-213-9 | | 1-10% | Acute Tox. 4-Skin Irrit. 2-Eye Irrit. 2-Skin Sens. 1A;H312-H315-H317-H319,- |
| beta-Pinene | 127-91-3 | 204-872-5 | | 1-10% | Flam. Liq. 3-Skin Irrit. 2-Skin Sens. 1B-Asp. Tox 1-Aquatic Acute 1-Aquatic Chronic 1; H226-H304-H315-H317-H410,- |
| p-Mentha-1,4-diene | 99-85-4 | 202-794-6 | | 1-10% | Flam. Liq. 3-Repr. 2-Asp. Tox 1;H226-H304-H361,- |
| Citral | 5392-40-5 | 226-394-6 | | <1% | Skin Irrit. 2-Eye Irrit. 2-Skin Sens. 1B;H315-H317-H319,- |
| alpha-Pinene | 80-56-8 | 201-291-9 | | <1% | Flam. Liq. 3-Skin Irrit. 2-Skin Sens. 1B-Asp. Tox 1-Aquatic Acute 1-Aquatic Chronic 1; H226-H304-H315-H317-H410,- |

Substances with Community workplace exposure limits:

| Name | CAS | EC | REACH Registration No. | % | Classification for (CLP) 1272/2008 |
|---------------|---------|-----------|------------------------|--------|--|
| Ethyl alcohol | 64-17-5 | 200-578-6 | | 60-70% | Flam. Liq. 2-Eye Irrit. 2; H225-H319,- |

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Cola Flavor 600144

Version: 3

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:** 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 (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.

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.

Causes serious eye irritation.

Harmful if inhaled.

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: Cola Flavor 600144

Version: 3

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.

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:

| Ingredient | CAS | EC | Description | Value |
|---------------|---------|-----------|-----------------------|-------|
| Ethyl alcohol | 64-17-5 | 200-578-6 | UK WEL Long term mgm3 | 1920 |
| | | | UK WEL Long term ppm | 1000 |

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

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Cola Flavor 600144

Version: 3

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: | 26.1 °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: | 0.8500 |
| 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: Cola Flavor 600144

Version: 3

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).

| | |
|---|--|
| Acute Toxicity: | Acute Toxicity - Inhalation Category 4 |
| Acute Toxicity Oral | >5000 |
| Acute Toxicity Dermal | >5000 |
| 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: | 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: | Aspiration Hazard Category 1 |

Information about hazardous ingredients in the mixture

| Ingredient | CAS | EC | LD50/ATE Oral | LD50/ATE Dermal | LC50/ATE Inhalation | LC50 Route |
|----------------|----------|-----------|---------------|-----------------|---------------------|---------------|
| Cinnamaldehyde | 104-55-2 | 203-213-9 | 2500 | 1100 | 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 |

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Cola Flavor 600144

Version: 3

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: UN1197

14.2 UN Proper Shipping Name: EXTRACTS, LIQUID

14.3 Transport hazard class(es): 3

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 C2=15.38% EH C3=1.54% SCI 2=47.89% EDI 2=14.29% SS 1=2.00%
AH 1=54.49%

Total Fractional Values: EH C2=6.50 EH C3=65.04 SCI 2=2.09 EDI 2=7.00 SS 1=50.00 AH 1=1.84

Key to revisions:

Classification under Regulation (EC) No 1272/2008

Classification under Regulation (EC) No 1272/2008

Information about hazardous ingredients in the mixture

SECTION 3: Composition/information on ingredients

Workplace exposure limits

Key to abbreviations:

| Abbreviation | Meaning |
|--------------|---------|
|--------------|---------|

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Cola Flavor 600144

Version: 3

| | |
|-------------------|--|
| Acute Tox. 4 | Acute Toxicity - Dermal Category 4 |
| 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 |
| Asp. Tox 1 | Aspiration Hazard Category 1 |
| Eye Irrit. 2 | Eye Damage / Irritation Category 2 |
| Flam. Liq. 2 | Flammable Liquid, Hazard Category 2 |
| Flam. Liq. 3 | Flammable Liquid, Hazard Category 3 |
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H361 | Suspected of damaging fertility or the unborn child (exposure route). |
| H410 | Very toxic to aquatic life with long lasting effects. |
| 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. |
| 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. |
| 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. |
| P308/313 | IF exposed or concerned: Get medical advice/attention. |
| P312 | Call a POISON CENTRE or doctor/physician if you feel unwell. |
| P331 | Do not induce vomiting. |
| 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. |

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: Cola Flavor 600144

Version: 3

| | |
|---------------|--|
| 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 |
| Skin Sens. 1A | Sensitization - Skin Category 1A |
| 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.