

SAFETY DATA SHEET

In accordance with REACH Regulation EC No.1907/2006

Product: DX Brown Sugar Flavor 17413

Version: 2

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

1.1 Product Identifier

Product identifier: DX Brown Sugar Flavor 17413(Contains:4-Hydroxy-2,5-dimethyl-3(2H)-furanone)

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: 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.

Supplemental Information: None

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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

3.2 Mixtures

Contains:

| Name | CAS | EC | REACH Registration No. | % | Classification for (CLP) 1272/2008 |
|---------------------------------------|-----------|-----------|------------------------|-----|--|
| 4-Hydroxy-2,5-dimethyl-3(2H)-furanone | 3658-77-3 | 222-908-8 | | <1% | Acute Tox. 4-Eye Dam. 1-Skin Sens. 1A;H302-H317-H318,- |

Substances with Community workplace exposure limits:

| Name | CAS | EC | REACH Registration No. | % | Classification for (CLP) 1272/2008 |
|------------------|---------|-----------|------------------------|-------|------------------------------------|
| Propylene glycol | 57-55-6 | 200-338-0 | | 1-10% | -;-,- |

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: 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.

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.

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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:

| Ingredient | CAS | EC | Description | Value |
|------------------|---------|-----------|-----------------------|-------|
| Propylene glycol | 57-55-6 | 200-338-0 | UK WEL Long term mgm3 | 474 |
| | | | UK WEL Long term ppm | 150 |

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.

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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: | > 93.33 °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: | 1.0700 |
| 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 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: | 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.

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

Concentration % Limits: SS 1=20.00%

Total Fractional Values: SS 1=5.00

Key to revisions:

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 |
|--------------|--|
| Acute Tox. 4 | Acute Toxicity - Oral Category 4 |
| Eye Dam. 1 | Eye Damage / Irritation Category 1 |
| H302 | Harmful if swallowed. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| 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. |
| P280 | Wear protective gloves/eye protection/face protection. |

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|---------------|--|
| 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. |
| P310 | Immediately call a POISON CENTER or doctor/physician. |
| 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. |
| Skin Sens. 1A | Sensitization - Skin Category 1A |

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.