



Version: 2 (11/10/2021)

SAFETY DATA SHEET

In accordance with 29 CFR 1910.1200

Product: Red Oak Flavor 222R06

Version: 2

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

1.1 Product Identifier

Product identifier: Red Oak Flavor 222R06

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

Class and category of Carcinogenicity Category 2

danger: H351, Suspected of causing cancer (exposure route).

2.2 Label elements

Signal word: Warning

Hazard statements: H351, Suspected of causing cancer (exposure route).

Precautionary P202, Do not handle until all safety precautions have been read and understood.

statements: P281, Use personal protective equipment as required.

P308/313, IF exposed or concerned: Get medical advice/attention.

P405, Store locked up.

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

regulations.





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Pictograms:



Other hazards: None

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

| Name | CAS | EC | % | GHS Classification |
|------------------|---------|-----------|---------|--|
| Furfural | 98-01-1 | 202-627-7 | 0.1-<1% | Flam. Liq. 4-Acute Tox. 3-Acute Tox. 4- Acute Tox. 2-Skin Irrit. 2-Eye Irrit. 2A- Carc. 2-STOT SE 3;H227-H301-H312- H315-H319-H330-H335-H351 |
| Furfuryl alcohol | 98-00-0 | 202-626-1 | 0.1-<1% | Flam. Liq. 4-Acute Tox. 3-Acute Tox. 3-Acute Tox. 2-Skin Irrit. 2-Eye Irrit. 2A-Carc. 2-STOT SE 3-STOT RE 2;H227-H301-H311-H315-H319-H330-H335-H351-H373 |

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 | <1% |
| Furfural | 98-01-1 | 202-627-7 | <1% |
| Propylene glycol | 57-55-6 | 200-338-0 | 90-99% |

Section 4. First-aid measures

4.1 Description of first aid measures

IF exposed or concerned: Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

Suspected of causing cancer (exposure route).

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.





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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:

Use personal protective equipment as required.

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:





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| Ingredient | CAS | EC | Description | ppm | mg/m³ | Reference |
|---------------------|---------|---------------|--|-----|-------|-----------|
| Ethyl alcohol 64-17 | 04.47.5 | 200-578- 6 | Long-term exposure limit (8-hour TWA reference period) | - | - | - |
| | 04-17-5 | | Short-term exposure limit (15-minute reference period) | - | - | - |
| Furfural 9 | 00 04 4 | 202-627- | Long-term exposure limit (8-hour TWA reference period) | - | - | - |
| | 98-01-1 | 7 | Short-term exposure limit (15-minute reference period) | - | - | - |
| Propylene glycol | 57-55-6 | 200-338- | 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:

Odour:

Not determined

> 93.33 °C

Vapour pressure:

Not determined

Relative density: 1.0380

Solubility(ies): Not determined

9.2 Other information: None available



PERFUMER'S APPRENTICE

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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.

Suspected of causing cancer (exposure route).

Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity: >5000
Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity: >5000

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 |
|------------------|---------|-----------|---------------|--------------------|------------------------|------------|
| Furfural | 98-01-1 | 202-627-7 | 100 | 1100 | 1 | Vapour |
| Furfuryl alcohol | 98-00-0 | 202-626-1 | 250 | 530 | 1 | Vapour |

Refer to Sections 2 and 3 for additional information.

Section 12. Ecological information

12.1 Toxicity: Not available





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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: CAR 2=20.00%

Total Fractional Values: CAR 2=5.00

Key to revisions:

2.1 Classification of the substance or mixture

Information about hazardous ingredients in the mixture





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SECTION 3: Composition/information on ingredients

Key to abbreviations:

| Abbreviation | Meaning |
|---------------|--|
| Acute Tox. 2 | Acute Toxicity - Inhalation Category 2 |
| Acute Tox. 3 | Acute Toxicity - Oral Category 3 |
| Acute Tox. 3 | Acute Toxicity - Dermal Category 3 |
| Acute Tox. 4 | Acute Toxicity - Dermal Category 4 |
| Carc. 2 | Carcinogenicity Category 2 |
| Eye Irrit. 2A | Eye Damage / Irritation Category 2A |
| Flam. Liq. 4 | Flammable Liquid, Hazard Category 4 |
| H227 | Combustible liquid. |
| H301 | Toxic if swallowed. |
| H311 | Toxic in contact with skin. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H330 | Fatal if inhaled. |
| H335 | May cause respiratory irritation. |
| H351 | Suspected of causing cancer (exposure route). |
| H373 | May cause damage to organs (organs) through prolonged or repeated exposure (exposure route). |
| 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. |
| P260 | Do not breathe vapour or dust. |
| 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. |
| P284 | Wear respiratory 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. |
| 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. |
| P308/313 | IF exposed or concerned: Get medical advice/attention. |
| P310 | Immediately call a POISON CENTER or doctor/physician. |
| P330 | Rinse mouth. |
| P332/313 | If skin irritation occurs: Get medical advice/attention. |
| P337/313 | If eye irritation persists: Get medical advice/attention. |
| P361 | Remove/Take off immediately all contaminated clothing. |
| 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. |
| P403/233/235 | Store in a well-ventilated place. Keep container tightly closed. Keep cool. |





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| P405 | Store locked up. |
|---------------|--|
| P501 | Dispose of contents/container to approved disposal site, in accordance with local regulations. |
| STOT RE 2 | Specific Target Organ Toxicity (Repeated Exposure) Category 2 |
| STOT SE 3 | Specific Target Organ Toxicity (Single Exposure) Category 3 |
| 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.