



| Chemical name                            | Common name and synonyms | CAS number | %         |
|--|--------------------------|------------|-----------|
| PROPYLENE GLYCOL<br>NFI                  | NOM                      | 57-55-6    | 60 - < 70 |
| VANILLIN #234                            |                          | 121-33-5   | 5 - < 10  |
| HEXYL ALCOHOL<br>#90                     |                          | 111-27-3   | 1-<3      |
| CINNAMIC ALDEHYDE<br>#98                 |                          | 104-55-2   | < 1       |
| Other components below reportable levels |                          |            | 20 - < 30 |

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

#### 4. First-aid measures

|   |   |
|---|---|
| <b>Inhalation</b>   | Move to fresh air. Call a physician if symptoms develop or persist.   |
| <b>Skin contact</b>   | Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.                    |
| <b>Eye contact</b>  | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. |
| <b>Ingestion</b>  | Rinse mouth. Get medical attention if symptoms occur.   |
| <b>Most important symptoms/effects, acute and delayed</b>                     | Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Dermatitis. Rash.  |
| <b>Indication of immediate medical attention and special treatment needed</b> | Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.  |
| <b>General information</b>  | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.   |

#### 5. Fire-fighting measures

|  |   |
|--|---|
| <b>Suitable extinguishing media</b>                                  | Alcohol resistant foam. Powder. Carbon dioxide (CO <sub>2</sub> ).                            |
| <b>Unsuitable extinguishing media</b>                                | Do not use water jet as an extinguisher, as this will spread the fire.                        |
| <b>Specific hazards arising from the chemical</b>                    | During fire, gases hazardous to health may be formed.   |
| <b>Special protective equipment and precautions for firefighters</b> | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| <b>Fire fighting equipment/instructions</b>                          | Move containers from fire area if you can do so without risk.                                 |
| <b>Specific methods</b>  | Use standard firefighting procedures and consider the hazards of other involved materials.    |
| <b>General fire hazards</b>  | No unusual fire or explosion hazards noted.   |

#### 6. Accidental release measures

|  |   |
|--|---|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.   |
| <b>Methods and materials for containment and cleaning up</b>               | Use water spray to reduce vapors or divert vapor cloud drift.<br><br>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.<br><br>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.<br><br>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. |
| <b>Environmental precautions</b>   | Avoid discharge into drains, water courses or onto the ground.  |

## 7. Handling and storage

|   |  |
|---|--|
| <b>Precautions for safe handling</b>                                | Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. |
| <b>Conditions for safe storage, including any incompatibilities</b> | Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).   |

## 8. Exposure controls/personal protection

### Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

#### US. Workplace Environmental Exposure Level (WEEL) Guides

| Components                                | Type | Value                | Form     |
|---|------|----------------------|----------|
| HEXYL ALCOHOL<br>#90 (CAS 111-27-3)       | TWA  | 40 ppm               |          |
| PROPYLENE GLYCOL<br>NOM NFI (CAS 57-55-6) | TWA  | 10 mg/m <sup>3</sup> | Aerosol. |
| VANILLIN #234 (CAS<br>121-33-5)           | TWA  | 10 mg/m <sup>3</sup> |          |

|  |  |
|--|--|
| <b>Biological limit values</b>   | No biological exposure limits noted for the ingredient(s).   |
| <b>Appropriate engineering controls</b>                                      | Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. |
| <b>Individual protection measures, such as personal protective equipment</b> |  |
| <b>Eye/face protection</b>   | Face shield is recommended. Wear safety glasses with side shields (or goggles).  |
| <b>Skin protection</b>   |  |
| <b>Hand protection</b>   | Wear appropriate chemical resistant gloves.  |
| <b>Other</b>   | Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.   |
| <b>Respiratory protection</b>  | In case of insufficient ventilation, wear suitable respiratory equipment.  |
| <b>Thermal hazards</b>   | Wear appropriate thermal protective clothing, when necessary.  |
| <b>General hygiene considerations</b>  | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.   |

## 9. Physical and chemical properties

### Appearance

|   |                                   |
|---|-----------------------------------|
| <b>Physical state</b>                               | Liquid.                           |
| <b>Form</b>   | Liquid.                           |
| <b>Color</b>  | Not available.                    |
| <b>Odor</b>   | Not available.                    |
| <b>Odor threshold</b>                               | Not available.                    |
| <b>pH</b>   | Not available.                    |
| <b>Melting point/freezing point</b>                 | -108.4 °F (-78 °C) estimated      |
| <b>Initial boiling point and boiling range</b>      | 370.76 °F (188.2 °C) estimated    |
| <b>Flash point</b>                                  | > 210.0 °F (> 98.9 °C) Closed Cup |
| <b>Evaporation rate</b>                             | Not available.                    |
| <b>Flammability (solid, gas)</b>                    | Not applicable.                   |
| <b>Upper/lower flammability or explosive limits</b> |                                   |
| <b>Flammability limit - lower (%)</b>               | Not available.                    |
| <b>Flammability limit - upper (%)</b>               | Not available.                    |

|  |                              |
|--|------------------------------|
| <b>Explosive limit - lower (%)</b>             | Not available.               |
| <b>Explosive limit - upper (%)</b>             | Not available.               |
| <b>Vapor pressure</b>                          | 0.12 hPa estimated           |
| <b>Vapor density</b>                           | Not available.               |
| <b>Relative density</b>                        | Not available.               |
| <b>Solubility(ies)</b>                         |                              |
| <b>Solubility (water)</b>                      | Not available.               |
| <b>Partition coefficient (n-octanol/water)</b> | Not available.               |
| <b>Auto-ignition temperature</b>               | 700 °F (371.11 °C) estimated |
| <b>Decomposition temperature</b>               | Not available.               |
| <b>Viscosity</b>                               | Not available.               |
| <b>Other information</b>                       |                              |
| <b>Explosive properties</b>                    | Not explosive.               |
| <b>Flammability class</b>                      | Combustible IIIB estimated   |
| <b>Oxidizing properties</b>                    | Not oxidizing.               |
| <b>Refractive index</b>                        | 1.4314 - 1.4614              |
| <b>Specific gravity</b>                        | 1.06 - 1.09                  |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactivity</b>                         | The product is stable and non-reactive under normal conditions of use, storage and transport.   |
| <b>Chemical stability</b>                 | Material is stable under normal conditions.   |
| <b>Possibility of hazardous reactions</b> | No dangerous reaction known under conditions of normal use.   |
| <b>Conditions to avoid</b>                | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| <b>Incompatible materials</b>             | Strong oxidizing agents.  |
| <b>Hazardous decomposition products</b>   | No hazardous decomposition products are known.  |

## 11. Toxicological information

### Information on likely routes of exposure

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | Prolonged inhalation may be harmful.   |
| <b>Skin contact</b> | May cause an allergic skin reaction.   |
| <b>Eye contact</b>  | Causes serious eye irritation.         |
| <b>Ingestion</b>    | Expected to be a low ingestion hazard. |

|   |  |
|---|--|
| <b>Symptoms related to the physical, chemical and toxicological characteristics</b> | Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Dermatitis. Rash. |
|---|--|

### Information on toxicological effects

|  |  |
|--|--|
| <b>Acute toxicity</b>                    | Not available.   |
| <b>Skin corrosion/irritation</b>         | Prolonged skin contact may cause temporary irritation.   |
| <b>Serious eye damage/eye irritation</b> | Causes serious eye irritation.   |
| <b>Respiratory or skin sensitization</b> |  |
| <b>Respiratory sensitization</b>         | Not a respiratory sensitizer.  |
| <b>Skin sensitization</b>                | May cause an allergic skin reaction.   |
| <b>Germ cell mutagenicity</b>            | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| <b>Carcinogenicity</b>                   | Not classifiable as to carcinogenicity to humans.  |

### IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

## OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

## US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

|   |  |
|---|--|
| <b>Reproductive toxicity</b>                              | This product is not expected to cause reproductive or developmental effects. |
| <b>Specific target organ toxicity - single exposure</b>   | Not classified.  |
| <b>Specific target organ toxicity - repeated exposure</b> | Not classified.  |
| <b>Aspiration hazard</b>                                  | Not an aspiration hazard.  |
| <b>Chronic effects</b>                                    | Prolonged inhalation may be harmful.   |

## 12. Ecological information

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|--|--|
| <b>Ecotoxicity</b>                                       | The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. |
| <b>Persistence and degradability</b>                     | No data is available on the degradability of any ingredients in the mixture.   |
| <b>Bioaccumulative potential</b>                         |  |
| <b>Partition coefficient n-octanol / water (log Kow)</b> |  |
| HEXYL ALCOHOL  | #90 2.03   |
| PROPYLENE GLYCOL   | NOM NFI -0.92  |
| VANILLIN #234  | 1.37   |
| <b>Mobility in soil</b>                                  | No data available.   |
| <b>Other adverse effects</b>                             | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.            |

## 13. Disposal considerations

|  |  |
|--|--|
| <b>Disposal instructions</b>                 | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.                         |
| <b>Local disposal regulations</b>            | Dispose in accordance with all applicable regulations.   |
| <b>Hazardous waste code</b>                  | The waste code should be assigned in discussion between the user, the producer and the waste disposal company.   |
| <b>Waste from residues / unused products</b> | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| <b>Contaminated packaging</b>                | Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.       |

## 14. Transport information

|   |                                   |
|---|-----------------------------------|
| <b>DOT</b>  | Not regulated as dangerous goods. |
| <b>IATA</b>   | Not regulated as dangerous goods. |
| <b>IMDG</b>   | Not regulated as dangerous goods. |
| <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> | Not established.                  |

## 15. Regulatory information

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|--|--|
| <b>US federal regulations</b>  | This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. |
| <b>Toxic Substances Control Act (TSCA)</b>                           |  |
| <b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b> |  |
| Not regulated.   |  |
| <b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>                |  |
| Not listed.  |  |

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)****SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No (Exempt)**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**CINNAMIC ALDEHYDE #98 Low priority  
(CAS 104-55-2)**US state regulations****California Proposition 65**California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).**International Inventories**

| Country(s) or region        | Inventory name   | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Australia                   | Australian Inventory of Chemical Substances (AICS)                     | Yes                    |
| Canada                      | Domestic Substances List (DSL)   | Yes                    |
| Canada                      | Non-Domestic Substances List (NDSL)                                    | No                     |
| China                       | Inventory of Existing Chemical Substances in China (IECSC)             | Yes                    |
| Europe                      | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes                    |
| Europe                      | European List of Notified Chemical Substances (ELINCS)                 | No                     |
| Japan                       | Inventory of Existing and New Chemical Substances (ENCS)               | No                     |
| Korea                       | Existing Chemicals List (ECL)  | No                     |
| New Zealand                 | New Zealand Inventory  | Yes                    |
| Philippines                 | Philippine Inventory of Chemicals and Chemical Substances (PICCS)      | Yes                    |
| Taiwan                      | Taiwan Chemical Substance Inventory (TCSI)                             | Yes                    |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory                          | Yes                    |

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision****Issue date** 02-10-2016**Revision date** 07-24-2019**Version #** 08**Disclaimer** Capella Flavors, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.