

## SAFETY DATA SHEET

## 1. Identification

| Product identifier                                 | GRENADINE FLAVOR N&A 1      | TYPE                    |
|--|-----------------------------|-------------------------|
| Other means of identification                      |                             |                         |
| Product code                                       | CA-1399                     |                         |
| Recommended use                                    | Use in accordance with supp | lier's recommendations. |
| Recommended restrictions                           | No other uses are advised.  |                         |
| Manufacturer/Importer/Supplier/Dis<br>Manufacturer | tributor information        |                         |
| Company name                                       | Capella Flavors, Inc.       |                         |
| Address  | 1315 Hot Springs Way, Suite | 112                     |
|  | Vista, CA 92081             |                         |
|  | United States               |                         |
| Telephone  | Office:                     | 760 650-0200            |
|  | Fax:                        | n/a                     |
| Website  | www.capellaflavors.com      |                         |
| E-mail   | customerservice@capellafla  | vors.com                |
| Emergency phone number                             | CHEMTREC                    | 800-424-9300            |
|  | INTERNATIONAL               | 703-741-5970            |

## 2. Hazard(s) identification

| Physical hazards      | Flammable liquids                                  | Category 4  |
|-----------------------|--|-------------|
| Health hazards        | Sensitization, skin                                | Category 1A |
| Environmental hazards | Hazardous to the aquatic environment, acute hazard | Category 3  |
| OSHA defined hazards  | Not classified.                                    |             |

Label elements



| Signal word                                  | Warning   |
|--|---|
| Hazard statement                             | Combustible liquid. May cause an allergic skin reaction. Harmful to aquatic life.   |
| Precautionary statement                      |   |
| Prevention                                   | Keep away from flames and hot surfaces-No smoking. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/eye protection/face protection.                      |
| Response                                     | If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.<br>Wash contaminated clothing before reuse. In case of fire: Use appropriate media to extinguish.                             |
| Storage                                      | Store in a well-ventilated place. Keep cool.  |
| Disposal                                     | Dispose of contents/container in accordance with local/regional/national/international regulations.   |
| Hazard(s) not otherwise<br>classified (HNOC) | Avoid eye contact or breathing dust, powder, mist or vapor from this product as irritation of the eyes or respiratory tract may result. This product contains ingredients for which the health effects have not been fully evaluated. |
| Supplemental information                     | None.   |
|  |   |

## 3. Composition/information on ingredients

**Mixtures** 

| Chemical name           | Common name and synonyms | CAS number | %        |
|-------------------------|--------------------------|------------|----------|
| PROPYLENE GLYCOL<br>NFI | NOM                      | 57-55-6    | 90 - 100 |

| Chemical name          | Common name and synonyms | CAS number | %     |
|------------------------|--------------------------|------------|-------|
| BENZALDEHYDE<br>NOM    | #21                      | 100-52-7   | 3-<5  |
| VANILLIN #234          |                          | 121-33-5   | 1-<3  |
| FURANEOL               |                          | 3658-77-3  | < 0.2 |
| Other components below | v reportable levels      |            | 1-<3  |

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

#### 4. First-aid measures

| Inhalation   | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or doctor/physician.   |
|--|--|
| Skin contact   | 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.   |
| Eye contact  | 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.  |
| Ingestion  | Rinse mouth. Get medical attention if symptoms occur.  |
| Most important<br>symptoms/effects, acute and<br>delayed                     | Direct contact with eyes may cause temporary irritation. May cause an allergic skin reaction.<br>Dermatitis. Rash.   |
| Indication of immediate<br>medical attention and special<br>treatment needed | Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.  |
| General information  | 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  |  |
| Suitable extinguishing media   | Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).  |
| Unsuitable extinguishing media   | Do not use water jet as an extinguisher, as this will spread the fire.   |
| Specific hazards arising from the chemical                                   | The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.   |
| Special protective equipment<br>and precautions for firefighters             | Self-contained breathing apparatus and full protective clothing must be worn in case of fire.  |
| Fire fighting<br>equipment/instructions                                      | In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.   |
| Specific methods   | Use standard firefighting procedures and consider the hazards of other involved materials.   |
| General fire hazards   | Combustible liquid.  |
| 6. Accidental release measu  | res  |
| Personal precautions,<br>protective equipment and<br>emergency procedures    | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Avoid inhalation of vapor, fumes, dust and/or mist from the spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local |

Methods and materials for containment and cleaning up

upUse water spray to reduce vapors or divert vapor cloud drift. Eliminate all ignition sources (no<br/>smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.)<br/>away from spilled material. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

authorities should be advised if significant spillages cannot be contained. For personal protection,

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions** Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

see section 8 of the SDS.

## 7. Handling and storage

Precautions for safe handling

Conditions for safe storage, including any incompatibilities

Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Store locked up. Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. 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                                | Туре   | Value   | Form                       |
|---|--|---|----------------------------|
| BENZALDEHYDE<br>#21 NOM (CAS 100-52-7)    | STEL   | 17.4 mg/m3  |                            |
|   |  | 4 ppm   |                            |
|   | TWA  | 8.7 mg/m3   |                            |
|   |  | 2 ppm   |                            |
| PROPYLENE GLYCOL<br>NOM NFI (CAS 57-55-6) | TWA  | 10 mg/m3  | Aerosol.                   |
| VANILLIN #234 (CAS<br>121-33-5)           | TWA  | 10 mg/m3  |                            |
| ological limit values                     | No biological exposure limits noted for  | the ingredient(s).  |                            |
| opropriate engineering<br>ontrols         | Good general ventilation should be us<br>applicable, use process enclosures, lo<br>maintain airborne levels below recomr<br>established, maintain airborne levels t  | cal exhaust ventilation, or oth<br>nended exposure limits. If exp | er engineering controls to |
| dividual protection measures, se          | uch as personal protective equipment   |   |                            |
| Eye/face protection                       | Face shield is recommended. Wear sa  | fety glasses with side shields                                    | (or goggles).              |
| Skin protection                           |  |   |                            |
| Hand protection                           | Wear appropriate chemical resistant g  | loves.  |                            |
| Other                                     | Wear appropriate chemical resistant c  | lothing. Use of an impervious                                     | apron is recommended.      |
| Respiratory protection<br>Thermal hazards | If engineering controls do not maintair<br>limits (where applicable) or to an acce<br>been established), an approved respir<br>Wear appropriate thermal protective c | ptable level (in countries whe<br>ator must be worn.              | •                          |
| eneral hygiene<br>onsiderations           | When using do not smoke. Always ob<br>after handling the material and before<br>clothing and protective equipment to n<br>be allowed out of the workplace.           | eating, drinking, and/or smok                                     | ing. Routinely wash work   |

#### 9. Physical and chemical properties

#### Appearance

| Physical state                          | Liquid.                        |
|---|--------------------------------|
| Form                                    | Liquid.                        |
| Color                                   | Not available.                 |
| Odor                                    | Not available.                 |
| Odor threshold                          | Not available.                 |
| рН                                      | Not available.                 |
| Melting point/freezing point            | -74.2 °F (-59 °C) estimated    |
| Initial boiling point and boiling range | 370.76 °F (188.2 °C) estimated |
| Flash point                             | 193.0 °F (89.4 °C)             |

| Evaporation rate                           | Not available.  |
|--|---|
| Flammability (solid, gas)                  | Not applicable.   |
| Upper/lower flammability or explo          | sive limits   |
| Flammability limit - lower<br>(%)          | Not available.  |
| Flammability limit - upper<br>(%)          | Not available.  |
| Explosive limit - lower (%)                | Not available.  |
| Explosive limit - upper (%)                | Not available.  |
| Vapor pressure                             | 0.17 hPa estimated  |
| Vapor density                              | Not available.  |
| Relative density                           | Not available.  |
| Solubility(ies)                            |   |
| Solubility (water)                         | Not available.  |
| Partition coefficient<br>(n-octanol/water) | Not available.  |
| Auto-ignition temperature                  | 700 °F (371.11 °C) estimated  |
| Decomposition temperature                  | Not available.  |
| Viscosity                                  | Not available.  |
| Other information                          |   |
| Density                                    | 0.88 g/cm3 estimated  |
| Explosive properties                       | Not explosive.  |
| Flammability class                         | Combustible IIIA estimated  |
| Oxidizing properties                       | Not oxidizing.  |
| Refractive index                           | 1.4232 - 1.4532   |
| Specific gravity                           | 1.03 - 1.06   |
| 10. Stability and reactivity               |   |
| Reactivity                                 | The product is stable and non-reactive under normal conditions of use, storage and transport.   |
| Chemical stability                         | Material is stable under normal conditions.   |
| Possibility of hazardous<br>reactions      | No dangerous reaction known under conditions of normal use.   |
| Conditions to avoid                        | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| Incompatible materials                     | Strong oxidizing agents.  |
| Hazardous decomposition<br>products        | No hazardous decomposition products are known.  |

## 11. Toxicological information

## Information on likely routes of exposure

| Inhalation   | May cause irritation to the respiratory system. Prolonged inhalation may be harmful. |
|--|--|
| Skin contact   | May cause an allergic skin reaction.   |
| Eye contact  | May be irritating to eyes.   |
| Ingestion  | Expected to be a low ingestion hazard.   |
| Symptoms related to the physical, chemical and toxicological characteristics | May cause an allergic skin reaction. Dermatitis. Rash.                               |
| Information on toxicological effects   | 5  |

Acute toxicity

| Components   | Species                                      | Test Results  |
|--|--|---|
| BENZALDEHYDE #21   | NOM (CAS 100-52-7)                           |   |
| <u>Acute</u>   |  |   |
| Oral   | Det  | 1200 mm//m  |
| LD50   | Rat  | 1300 mg/kg  |
| Skin corrosion/irritation                                  | Prolonged skin contact may                   |   |
| Serious eye damage/eye<br>irritation                       | Direct contact with eyes ma                  | y cause temporary irritation.   |
| Respiratory or skin sensitization                          |  |   |
| Respiratory sensitization                                  | Not a respiratory sensitizer.                |   |
| Skin sensitization   | May cause an allergic skin i                 |   |
| Germ cell mutagenicity                                     | mutagenic or genotoxic.                      | e product or any components present at greater than 0.1% are  |
| Carcinogenicity  | Not classifiable as to carcin                | ogenicity to humans.  |
| IARC Monographs. Overall I                                 | Evaluation of Carcinogenicity                |   |
| Not listed.  |  |   |
|  | d Substances (29 CFR 1910.100                | 1-1052)   |
| Not regulated.   | gram (NTP) Report on Carcinog                | ens   |
| Not listed.  |  |   |
| Reproductive toxicity                                      | This product is not expected                 | l to cause reproductive or developmental effects.   |
| Specific target organ toxicity -<br>single exposure        | Not classified.                              |   |
| Specific target organ toxicity -<br>repeated exposure      | Not classified.                              |   |
| Aspiration hazard  | Not an aspiration hazard.                    |   |
| Chronic effects  | Prolonged inhalation may b                   | e harmful   |
| 12. Ecological information                                 |  |   |
| ·  |  |   |
| Ecotoxicity<br>Persistence and degradability               | Harmful to aquatic life.                     | degradability of any ingredients in the mixture.  |
|  |  |   |
| Bioaccumulative potential<br>Partition coefficient n-octan | ol (water (log Kow)                          |   |
|  | #21 NOM                                      | 1.48  |
| PROPYLENE GLYCOL   | NOM NFI                                      | -0.92   |
| VANILLIN #234  |  | 1.37  |
| Mobility in soil   | No data available.                           |   |
| Other adverse effects                                      |  | ental effects (e.g. ozone depletion, photochemical ozone creation on, global warming potential) are expected from this component.   |
| 13. Disposal consideration                                 | IS   |   |
| Disposal instructions                                      | this material to drain into se               | se in sealed containers at licensed waste disposal site. Do not allow<br>wers/water supplies. Do not contaminate ponds, waterways or ditches<br>iner. Dispose of contents/container in accordance with<br>national regulations. |
| Local disposal regulations                                 | Dispose in accordance with                   | all applicable regulations.   |
| Hazardous waste code                                       | The waste code should be a disposal company. | assigned in discussion between the user, the producer and the waste   |
| Waste from residues / unused<br>products                   |  | ith local regulations. Empty containers or liners may retain some rial and its container must be disposed of in a safe manner (see:   |
| Contaminated packaging                                     |  | ay retain product residue, follow label warnings even after container is should be taken to an approved waste handling site for recycling or  |

## 14. Transport information

#### DOT

Not regulated as dangerous goods.

#### IATA

Not regulated as dangerous goods.

#### IMDG

Not regulated as dangerous goods.

# Transport in bulk according to Not established. Annex II of MARPOL 73/78 and the IBC Code

## 15. Regulatory information

| US federal regulations<br>Toxic Substances Control Act<br>TSCA Section 12(b) Expo<br>Not regulated.<br>CERCLA Hazardous Substance<br>Not listed.<br>SARA 304 Emergency release<br>Not regulated.<br>OSHA Specifically Regulated in the section of the s | Standard<br>(TSCA)<br>rt Notificati<br>ce List (40 C | , 29 CFR 191<br>on (40 CFR 7( |  | Communication                       |
|--|--|-------------------------------|--|-------------------------------------|
| TSCA Section 12(b) Expo<br>Not regulated.<br>CERCLA Hazardous Substanc<br>Not listed.<br>SARA 304 Emergency release<br>Not regulated.<br>OSHA Specifically Regulated   | rt Notificati<br>ce List (40 C                       | -                             | )7, Subpt. D)  |                                     |
| Not regulated.<br>CERCLA Hazardous Substand<br>Not listed.<br>SARA 304 Emergency release<br>Not regulated.<br>OSHA Specifically Regulated  | ce List (40 C  | -                             | )7, Subpt. D)  |                                     |
| CERCLA Hazardous Substand<br>Not listed.<br>SARA 304 Emergency release<br>Not regulated.<br>OSHA Specifically Regulated  |  | CFR 302.4)                    |  |                                     |
| Not listed.<br>SARA 304 Emergency release<br>Not regulated.<br>OSHA Specifically Regulated a   |  | CFR 302.4)                    |  |                                     |
| SARA 304 Emergency release<br>Not regulated.<br>OSHA Specifically Regulated 3  | notificatio  |                               |  |                                     |
| Not regulated.<br>OSHA Specifically Regulated  | notification   |                               |  |                                     |
| OSHA Specifically Regulated  |  | า                             |  |                                     |
|  |  |                               |  |                                     |
| Not regulated.   | Substances   | 6 (29 CFR 191)                | 0.1001-1052)   |                                     |
| Superfund Amendments and Reau  | thorization  | Act of 1986 (S                | SARA)  |                                     |
| SARA 302 Extremely hazardo   | us substan   | ce                            |  |                                     |
| Not listed.  |  |                               |  |                                     |
| SARA 311/312 Hazardous chemical  | No (Exer   | npt)                          |  |                                     |
| SARA 313 (TRI reporting)<br>Not regulated.   |  |                               |  |                                     |
| Other federal regulations  |  |                               |  |                                     |
| Clean Air Act (CAA) Section 1  | 12 Hazardo   | us Air Polluta                | nts (HAPs) List  |                                     |
| Not regulated.   |  |                               |  |                                     |
| Clean Air Act (CAA) Section 1  | 12(r) Accide   | ental Release                 | Prevention (40 CFR 68.130)   |                                     |
| Not regulated.   |  |                               |  |                                     |
| Safe Drinking Water Act<br>(SDWA)  | Not regul  | ated.                         |  |                                     |
| Drug Enforcement Admin   | istration (D   | EA). List 1 & 2               | 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))   |                                     |
| BENZALDEHYDE<br>(CAS 100-52-7)   | #21  | NOM                           | 50 %WV   |                                     |
| DEA Exempt Chemical M  | ixtures Cod  | e Number                      |  |                                     |
| BENZALDEHYDE<br>(CAS 100-52-7)   |  | NOM                           | 8256   |                                     |
| FEMA Priority Substance  |  |                               | Safety in the Flavor Manufacturing Workplace   |                                     |
| BENZALDEHYDE<br>(CAS 100-52-7)   | #21  | NOM                           | High priority  |                                     |
| US state regulations   |  |                               |  |                                     |
| California Proposition 65  |  |                               |  |                                     |
| California Safa Drinking V   | ny chemical  | s currently list              | ent Act of 1986 (Proposition 65): This material<br>ed as carcinogens or reproductive toxins. For |                                     |
|  | ww.P65War  | nings.ca.gov.                 |  |                                     |
| is not known to contain ar<br>more information go to w   | ww.P65War  | nings.ca.gov.                 |  |                                     |
| is not known to contain ar<br>more information go to w   | ww.P65War  |                               |  | On inventory (yes/no)*              |
| is not known to contain ar<br>more information go to wy<br>International Inventories   | Inventory  | / name                        | Chemical Substances (AICS)   | <b>On inventory (yes/no)*</b><br>No |

| Country(s) or region              | Inventory name C   | On inventory (yes/no)* |
|-----------------------------------|--|------------------------|
| Canada                            | Non-Domestic Substances List (NDSL)  | No                     |
| China                             | Inventory of Existing Chemical Substances in China (IECSC)                                   | No                     |
| Europe                            | European Inventory of Existing Commercial Chemical<br>Substances (EINECS)                    | No                     |
| 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  | No                     |
| Philippines                       | Philippine Inventory of Chemicals and Chemical Substances (PICCS)                            | No                     |
| Taiwan                            | Taiwan Chemical Substance Inventory (TCSI)   | No                     |
| United States & Puerto Rico       | Toxic Substances Control Act (TSCA) Inventory  | No                     |
| *A "Ves" indicates that all compo | pents of this product comply with the inventory requirements administered by the governing c | ountry(s)              |

\*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<br>Revision date | 12-04-2015<br>02-13-2019   |
|-----------------------------|--|
| Version #                   | 06   |
| 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. |
| Revision information        | This document has undergone significant changes and should be reviewed in its entirety.  |