

SAFETY DATA SHEET

1. Identification

| Product identifier | HAZELNUT FL NAT & AR | r |
|---|--|------------------------------|
| Other means of identification Product code | AF12408 | |
| Recommended use | Use in accordance with sup | plier's recommendations. |
| Recommended restrictions | No other uses are advised. | |
| Manufacturer/Importer/Supplier/ | Distributor information | |
| Manufacturer | | |
| Company name Address | Allen Flavors, Inc. 23 Progress St Edison, NJ 08820 United States | |
| Telephone | Office: Fax: | 908 561-5995 908 561-4164 |
| Website E-mail Emergency phone number | www.allenflavors.com info@allenflavors.com CHEMTREC | 800-424-9300 |

2. Hazard(s) identification

| Physical hazards | Flammable liquids | Category 3 |
|-----------------------|-----------------------------------|-------------|
| Health hazards | Serious eye damage/eye irritation | Category 2A |
| Environmental hazards | Not classified. | |
| OSHA defined hazards | Not classified. | |
| Label elements | | |



| Signal word | Warning |
|--|--|
| Hazard statement | Flammable liquid and vapor. Causes serious eye irritation. |
| Precautionary statement | |
| Prevention | Keep away from heat/sparks/open flames/hot surfaces No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wash thoroughly after handling. Wear protective gloves/eye protection/face protection. |
| Response | If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. 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 classified (HNOC) | Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion. This product contains a butter flavoring other than diacetyl. The health effects of these materials are currently being studied for potential respiratory hazards. Avoid eye contact or breathing dust, powder, mist or vapor from this product as irritation of the eyes or respiratory tract may result. |
| Supplemental information | None. |
| | |

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|--------------|-----------|
| TRADE SECRET* | | Proprietary* | 70 - < 80 |
| ETHYL ALCOHOL 190 PROOF CANE IP NON GMO | ETHYLALCOHOL | 64-17-5 | 20 - < 30 |
| TRADE SECRET* | | Proprietary* | 1 - < 3 |
| Other components below reportable | e levels | | 5 - < 10 |

*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 | Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists. |
| 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 symptoms/effects, acute and delayed | Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed. |
| General information | Take off all contaminated clothing immediately. 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. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical | Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed. |
| Special protective equipment and precautions for firefighters | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| Fire fighting 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 | Flammable liquid and vapor. |

6. Accidental release measures

Personal precautions, protective equipment and 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 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. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

| Methods and materials for containment and cleaning up | Use water spray to reduce vapors or divert vapor cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. |
|---|--|
| | 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. |
| | 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 discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination. |
| 7. Handling and storage | |
| Precautions for safe handling | Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with eyes. Avoid prolonged exposure. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. |
| | For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code". |
| Conditions for safe storage, including any incompatibilities | Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original 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. OSHA Table Z-1 Limits for A Components | ir Contaminants (29 CFR 1910.1000) Type | Value | |
|---|--|------------|--|
| ETHYL ALCOHOL 190 PROOF CANE IP NON GMO (CAS 64-17-5) | PEL | 1900 mg/m3 | |
| | | 1000 ppm | |
| US. ACGIH Threshold Limit Valu | les | | |
| Components | Туре | Value | |
| ETHYL ALCOHOL 190 PROOF CANE IP NON GMO (CAS 64-17-5) | STEL | 1000 ppm | |
| US. NIOSH: Pocket Guide to Ch | emical Hazards | | |
| Components | Туре | Value | |
| ETHYL ALCOHOL 190 PROOF CANE IP NON GMO (CAS 64-17-5) | TWA | 1900 mg/m3 | |

| Components | Туре | Value | |
|--|---|------------------------|----------|
| | | 1000 ppm | |
| US. Workplace Environme Components | ental Exposure Level (WEEL) Guides Type | Value | Form |
| TRADE SECRET | TWA | 10 mg/m3 | Aerosol. |
| ological limit values | No biological exposure limits noted for t | the ingredient(s). | |
| opropriate engineering ontrols | Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) 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. | | |
| dividual protection measure Eye/face protection | es, such as personal protective equipmen Wear safety glasses with side shields (o | | |
| Skin protection Hand protection | Wear appropriate chemical resistant glo | oves. | |
| Other | Wear suitable protective clothing. | | |
| Respiratory protection | If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. | | |
| | Wear appropriate thermal protective clothing, when necessary. | | |
| Thermal hazards | wear appropriate thermal protective cic | uning, when necessary. | |

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 | -173.38 °F (-114.1 °C) estimated |
| Initial boiling point and boiling range | 173.3 °F (78.5 °C) estimated |
| Flash point | 84.0 °F (28.9 °C) Closed Cup |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not applicable. |
| Upper/lower flammability or exp | losive limits |
| Flammability limit - lower (%) | Not available. |
| Flammability limit - upper (%) | Not available. |
| Explosive limit - lower (%) | Not available. |
| Explosive limit - upper (%) | Not available. |
| Vapor pressure | 16.67 hPa estimated |
| Vapor density | Not available. |
| Relative density | Not available. |
| Solubility(ies) | |
| Solubility (water) | Not available. |
| Partition coefficient (n-octanol/water) | Not available. |
| | |

| Auto-ignition temperature | 685 °F (362.78 °C) estimated |
|---------------------------|------------------------------|
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Density | 0.79 g/cm3 estimated |
| Explosive properties | Not explosive. |
| Flammability class | Flammable IC estimated |
| Oxidizing properties | Not oxidizing. |
| Refractive index | 1.402 - 1.432 |
| Specific gravity | 0.98 - 1 |

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 reactions | Hazardous polymerization does not occur. |
| Conditions to avoid | Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition 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 | No adverse effects due to skin contact are expected. |
| Eye contact | Causes serious eye irritation. |
| Ingestion | Expected to be a low ingestion hazard. |
| Symptoms related to the physical, chemical and toxicological characteristics | Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. |
| Information on toxicological effe | ects |
| Acute toxicity | Not available. |
| Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation. |
| Serious eye damage/eye irritation | Causes serious eye irritation. |
| Respiratory or skin sensitization | 1 |
| Respiratory sensitization | Not a respiratory sensitizer. |
| Skin sensitization | This product is not expected to cause skin sensitization. |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| Carcinogenicity | Not classifiable as to carcinogenicity to humans. |
| Not listed. OSHA Specifically Regulate Not regulated. | Evaluation of Carcinogenicity d Substances (29 CFR 1910.1001-1050) ogram (NTP) Report on Carcinogens |
| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. |
| Specific target organ toxicity - single exposure | Not classified. |
| Specific target organ toxicity - repeated exposure | Not classified. |
| Aspiration hazard | Not an aspiration hazard. |
| | |

12. Ecological information

Ecotoxicity

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.

Persistence and degradability

Bioaccumulative potential

| Partition coefficient n-octa | nol / water (log Kow) | |
|---|-----------------------|-------|
| ETHYL ALCOHOL 190 PROOF CANE IP NON GMO | | -0.31 |
| TRADE SECRET | | -0.92 |
| | | 1.61 |
| Mobility in soil | No data available. | |

| meanity in een | |
|----------------|---|
| | 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

| Disposal instructions | 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. |
|--|--|
| Local disposal regulations | Dispose in accordance with all applicable regulations. |
| Hazardous waste code | The waste code should be assigned in discussion between the user, the producer and the waste disposal company. |
| Waste from residues / unused products | 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). |
| Contaminated packaging | 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

| DO | т | |
|-----|------------------------------|---|
| | UN number | UN1197 |
| | UN proper shipping name | Extracts, flavoring, liquid |
| | Transport hazard class(es) | |
| | Class | 3 |
| | Subsidiary risk | - |
| | Label(s) | 3 |
| | Packing group | III |
| | Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| | Special provisions | B1, IB3, T2, TP1 |
| | Packaging exceptions | 150 |
| | Packaging non bulk | 203 |
| | Packaging bulk | 242 |
| ΙΑΤ | Α | |
| | UN number | UN1197 |
| | UN proper shipping name | Extracts, flavouring, liquid |
| | Transport hazard class(es) | |
| | Class | 3 |
| | Subsidiary risk | - |
| | Packing group | |
| | Environmental hazards | No. |
| | ERG Code | 3L |
| | | Read safety instructions, SDS and emergency procedures before handling. |
| | Other information | |
| | Passenger and cargo | Allowed with restrictions. |
| | aircraft | |
| | Cargo aircraft only | Allowed with restrictions. |
| IME | - | |
| | UN number | UN1197 |
| | UN proper shipping name | EXTRACTS, FLAVOURING, LIQUID |
| | | |

| Transport hazard class(es) | |
|--|---|
| Class | 3 |
| Subsidiary risk | - |
| Packing group | III |
| Environmental hazards | |
| Marine pollutant | No. |
| EmS | F-E, S-D |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not established. |
| DOT | |



15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Hazard categories

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous No chemical

SARA 313 (TRI reporting)

Not regulated.

| Other federal regulations | | |
|-----------------------------------|---|------------------------|
| Clean Air Act (CAA) Section | 112 Hazardous Air Pollutants (HAPs) List | |
| Not regulated. | | |
| | 112(r) Accidental Release Prevention (40 CFR 68.130) | |
| Not regulated. | | |
| Safe Drinking Water Act (SDWA) | Not regulated. | |
| FEMA Priority Substance | ces Respiratory Health and Safety in the Flavor Manufacturing Worl | kplace |
| ETHYL ALCOHOL 1 (CAS 64-17-5) | 90 PROOF CANE IP NON GMO Low priority | |
| US state regulations | California Safe Drinking Water and Toxic Enforcement Act of 1986 (Pr is not known to contain any chemicals currently listed as carcinogens | • • |
| International Inventories | | |
| Country(s) or region | Inventory name | On inventory (yes/no)* |
| Australia | Australian Inventory of Chemical Substances (AICS) | No |
| Canada | Domestic Substances List (DSL) | 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 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 |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | No |

*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 Revision date Version # | 05-27-2016 06-06-2018 04 |
|--|--|
| Disclaimer | Allen 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. |