

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

- 1.1 Product Code:** 00188
Product Name: Sea Buckthorn Flavor
Trade Name: Sea Buckthorn Flavor
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
- 1.3 Details of the Supplier of the Safety Data Sheet:**
Company Name: Perfumer's Apprentice
170 Technology Circle
Scotts Valley, CA 95066
- 1.4 Emergency telephone number:**

Section 2. Hazards Identification

- 2.1 Classification of the Substance or Mixture:**
- 2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]:**
Aquatic Toxicity (Chronic), Category 2
Flammable Liquids, Category 3
- 2.1.2 Classification according to Directive 1999/45/EC:**
Xi: Irritant
Risk Phrases: R36/37/38, R10
For full text of R- phrases: see SECTION 15.
- 2.2 Label Elements:**
- 2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]:**



GHS Signal Word: Warning

GHS Hazard Phrases:

H411 - Toxic to aquatic life with long lasting effects.

H226 - Flammable liquid and vapor.

GHS Precaution Phrases:

P273 - Avoid release to the environment.

P233 - Keep container tightly closed.

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical/ventilating/lighting/.../ equipment.

P243 - Take precautionary measures against static discharge.

P242 - Use only non-sparking tools.

GHS Response Phrases:

P391 - Collect spillage.

P370+378 - In case of fire, use ... to extinguish.

P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

GHS Storage and Disposal Phrases:

P501 - Dispose of contents/container to

P403+235 - Store in cool/well-ventilated place.

2.2.2 Labeling according to Directive 1999/45/EC:



Xi

2.3 Adverse Human Health Chronic ingestion may cause lactic acidosis and possible seizures.

Effects and Symptoms:

Chronic: Exposure to large doses may cause central nervous system depression. Exposures to propylene glycol having no adverse effects on the mother should have no effect on the fetus. Birth defects are unlikely. In animal studies, propylene glycol has been shown not to interfere with reproduction. Exposure to high concentrations may cause central nervous system depression. Narcotic in high concentrations.

2.3.1 Inhalation: Low hazard for normal industrial handling. Inhalation of a mist of this material may cause respiratory tract irritation. Material has a low vapor pressure at room temperature, so exposure to vapor is not likely. May be harmful if inhaled. Causes respiratory tract irritation. Material is irritating to mucous membranes and upper respiratory tract. Vapors may cause dizziness or suffocation.

2.3.2 Skin Contact: May be absorbed through damaged or abraded skin in harmful amounts. Allergic reactions have been reported. A single prolonged skin exposure is not likely to result in the material being absorbed in harmful amounts. Repeated exposures may cause problems. Negative results have consistently been obtained in guinea pigs studies for sensitization. 1,,2-Propylene glycol is not considered an occupational skin sensitizer. (CHEMINFO) May be harmful if absorbed through the skin. Causes skin irritation. Skin Absorption: May be harmful if absorbed through the skin.

2.3.3 Eye Contact: May cause slight transient injury. Causes eye irritation.

2.3.4 Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Low hazard for usual industrial handling. May cause hemoglobinuric nephrosis. May cause changes in surface EEG. May be harmful if swallowed. May cause irritation of the digestive tract. Causes digestive tract irritation.

Section 3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	Risk Phrases/ GHS Classification
57-55-6	Propylene glycol	>=10.0 %	200-338-0 NA	No phrases apply.
659-70-1	3 - Methylbutyl isovalerate	1.0 -10.0 %	211-536-1 NA	No phrases apply. Aquatic (C) 2: H411
93-89-0	Benzoic acid, Ethyl ester	1.0 -10.0 %	202-284-3 NA	Xi; R36/38
98-55-5	.alpha.-Terpineol	1.0 -10.0 %	202-680-6 NA	Xi; R38
109-21-7	Butanoic acid, Butyl ester	1.0 -10.0 %	203-656-8 607-031-00-4	R10 Flam. Liq. 3: H226
85949-43-5	4-[2,6,6-Trimethyl-1(or 2)-cyclohexen-1-yl]-3-buten-2-one	1.0 -10.0 %	288-959-3 NA	

Section 4. First Aid Measures

- 4.1 Description of First Aid Measures:**
- In Case of Inhalation:** If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Get medical aid. If breathed in, move person into fresh air. Remove from exposure and move to fresh air immediately. Get medical aid if cough or other symptoms appear.
- In Case of Skin Contact:** In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse. Wash off with soap and plenty of water. Consult a physician. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- In Case of Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.
- In Case of Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid. Rinse mouth with water. Consult a physician. If swallowed, wash out mouth with water provided person is conscious. Call a physician. If victim is conscious and alert, give 2-4 cupfuls of milk or water.
- 4.2 Important Symptoms and Effects, Both Acute and Delayed:** To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
- Note for the Doctor:** Persons with impaired kidney function may be more susceptible to the effects of this substance. Treat symptomatically and supportively. Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Section 5. Fire Fighting Measures

- 5.1 Suitable Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam. Use water spray, dry chemical, carbon dioxide, or chemical foam. Suitable: Water spray. For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Use agent most appropriate to extinguish fire. Do NOT use straight streams of water.
- 5.2 Flammable Properties and Hazards:**
- Flash Pt:**
- Explosive Limits:** LEL: UEL:
- Autoignition Pt:**
- 5.3 Fire Fighting Instructions:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Wear self contained breathing apparatus for fire fighting if necessary. Will burn if involved in a fire. Containers may explode in the heat of a fire. Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Use water spray to keep fire-exposed containers cool. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. Flammable liquid and vapor. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

Section 6. Accidental Release Measures

6.3 Methods and Material For Containment and Cleaning Up: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation. Personal precautions.
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.
Environmental precautions.
Do not let product enter drains.
Methods for cleaning up.
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use a spark-proof tool. Do not let this chemical enter the environment. **PROCEDURE(S) OF PERSONAL PRECAUTION(S)**
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves. Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete. A vapor suppressing foam may be used to reduce vapors.

Section 7. Handling and Storage

7.1 Precautions To Be Taken in Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Keep away from heat, sparks and flame. Do not ingest or inhale. User Exposure: Do not breathe vapor. Ground and bond containers when transferring material. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Wash clothing before reuse. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

7.2 Precautions To Be Taken in Storing: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture. Keep container tightly closed in a dry and well-ventilated place. Keep away from sources of ignition. Store in a cool, dry place. Keep away from heat, sparks and flame. Flammables-area.

Section 8. Exposure Controls/Personal Protection

8.1 Exposure Parameters:

CAS #	Partial Chemical Name	Britain EH40	France VL	Europe
57-55-6	Propylene glycol	TWA: 474 mg/m3 (150 ppm) (Total Particulates) TWA: 10 mg/m3 (Powder)		
659-70-1	3 - Methylbutyl isovalerate			
93-89-0	Benzoic acid, Ethyl ester			
98-55-5	.alpha.-Terpineol			
109-21-7	Butanoic acid, Butyl ester			
85949-43-5	4-[2,6,6-Trimethyl-1(or 2)-cyclohexen-1-yl]-3-buten-2-one			

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CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
57-55-6	Propylene glycol			
659-70-1	3 - Methylbutyl isovalerate			
93-89-0	Benzoic acid, Ethyl ester			
98-55-5	.alpha.-Terpineol			
109-21-7	Butanoic acid, Butyl ester			
85949-43-5	4-[2,6,6-Trimethyl-1(or 2)-cyclohexen-1-yl]-3-buten-2-one			

8.2 Exposure Controls:

8.2.1 Engineering Controls (Ventilation etc.): Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low. Use explosion-proof ventilation equipment. Mechanical exhaust required. Safety shower and eye bath.

8.2.2 Personal protection equipment:

Eye Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Safety glasses with side-shields conforming to EN166. Chemical safety goggles.

Protective Gloves: Wear appropriate protective gloves to prevent skin exposure. Handle with gloves.

Other Protective Clothing: Wear appropriate protective clothing to prevent skin exposure. Choose body protection according to the amount and concentration of the dangerous substance at the work place. Wear appropriate clothing to prevent skin exposure.

Respiratory Equipment (Specify Type): A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Hand: Compatible chemical-resistant gloves. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Work/Hygienic/Maintenance Practices: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Wash thoroughly after handling.

Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Physical States: [] Gas [X] Liquid [] Solid

Appearance and Odor: Transparent Colorless.
Seabuckthorn taste and aroma.

Melting Point:

Boiling Point:

Flash Pt:

Evaporation Rate:

Explosive Limits: LEL: UEL:

Vapor Pressure (vs. Air or mm Hg):

Vapor Density (vs. Air = 1):

Specific Gravity (Water = 1):

Solubility in Water:

Autoignition Pt:

9.2 Other Information

Percent Volatile:

Section 10. Stability and Reactivity

10.1 Reactivity:

10.2 Stability: Unstable [] Stable [X]

10.3 Conditions To Avoid - Hazardous Reactions:

Possibility of Hazardous Reactions: Will occur [] Will not occur [X]

10.4 Conditions To Avoid - Instability: Excess heat, moist air, Incompatible materials, ignition sources.

10.5 Incompatibility - Materials To Avoid: Strong oxidizing agents, Strong oxidizing agents.

10.6 Hazardous Decomposition Or Byproducts: Carbon monoxide, Carbon dioxide, formed under fire conditions. Carbon oxides.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects:	Epidemiology: No information available. Teratogenicity: No information available. Reproductive Effects: Mutagenicity: Neurotoxicity: Other Studies:
Irritation or Corrosion:	Skin - rabbit -
Sensitization:	No data available.
Chronic Toxicological Effects:	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Carcinogenicity/Other Information:	CAS# 57-55-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 93-89-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 109-21-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
Carcinogenicity:	NTP? No IARC Monographs? No OSHA Regulated? No

Section 12. Ecological Information

12.1 Toxicity:	Ecotoxicity: Water flea Daphnia: EC50 10000 mg/L; 48 HrUnspecified, Bacteria: Phytobacterium phosphoreum: EC50 = 710 mg/L; 30 min; Microtox testFish: Goldfish: LC50 5000 mg/L; 24 Hr; UnspecifiedFish: Guppy: LC50 1000 mg/L; 48 Hr; Unspecified If released to water, 1,2-propanediol is expected to degrade relatively rapidly via biodegradation. If released to soil, relatively rapid biodegradation should also occur. Significant leaching in soil can be predicted. Environmental: If released to the atmosphere, it is degraded rapidly by reaction with photochemically produced hydroxyl radicals (typical half-life of 32 hr). Physical removal from air by rainfall is possible. Physical: No information available. Other: No information available. No information available. Other: Do not empty into drains.
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Section 13. Disposal Considerations

13.1 Waste Disposal Method:	Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. RCRA P-Series: None listed. RCRA U-Series: None listed. Product. This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Contaminated packaging. Dispose of as unused product. APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
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Section 14. Transport Information

14.1 LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Not Regulated. FLAMMABLE LIQUIDS, N.O.S.

DOT Hazard Class:

UN/NA Number:

14.1 LAND TRANSPORT (Canadian TDG):

TDG Shipping Name: Not Regulated. No information available.

14.1 LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name:

UN Number:

Hazard Class:

14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15. Regulatory Information

European Community Hazard Symbol codes:

European Community Risk and Safety Phrases:

R36/37/38	Irritating to eyes, respiratory system and skin.
R10	Flammable.
S24/25	Avoid contact with skin and eyes.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S16	Keep away from sources of ignition.
S33	Take precautionary measures against static discharges.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible.)
S9	Keep container in a well-ventilated place.
S28A	After contact with skin, wash immediately with plenty of water.

Section 16. Other Information

Revision Date: 03/31/2014

**Additional Information About
This Product:**