SAFETY DATA SHEET
Graham Cracker Clear Flavor

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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: 00149
Product Name: Graham Cracker Clear Flavor
Trade Name: Graham Cracker Clear 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]:
2.1.2 Classification according to Directive 1999/45/EC:
Xn: Harmful
Risk Phrases: R22, R36/37/38
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:

GHS Hazard Phrases:

GHS Precaution Phrases:

GHS Response Phrases:

GHS Storage and Disposal Phrases:

2.2.2 Labeling according to Directive 1999/45/EC:

Xn

2.3 Adverse Human Health Effects and Symptoms: Prolonged or repeated contact may result in "vanillism", an allergic dermatitis. Doesn't seem likely upon a closer look since the allergic reaction is caused by a mite in the 'raw' vanilla.

Chronic ingestion may cause lactic acidosis and possible seizures.

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.

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. No hazard expected in normal industrial use. Dust is irritating to the respiratory tract. May be harmful if inhaled. Causes respiratory tract irritation.

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) Dust may cause mechanical irritation. Low hazard for normal industrial handling. Causes skin irritation.

Skin Absorption: May be harmful if absorbed through the skin. May be harmful if absorbed through the skin.

2.3.3 Eye Contact: May cause slight transient injury. Dust may cause mechanical irritation. Low hazard for normal industrial handling. 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 cause irritation of the digestive tract. Harmful if swallowed.

Vapor or mist is irritating to the eyes, mucous membranes, and upper respiratory tract.

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.
121-33-5	Benzaldehyde, 4-Hydroxy-3-methoxy-	>=10.0 %	204-465-2 NA	No phrases apply.
121-32-4	Benzaldehyde, 3-ethoxy-4-hydroxy-	1.0 -10.0 %	204-464-7 NA	Xn; R22
118-71-8	3-Hydroxy-2-methyl-4-pyrone	1.0 -10.0 %	204-271-8 NA	Xn; R22-36/37/38
64-17-5	Ethyl alcohol	1.0 -10.0 %	200-578-6 603-002-00-5	F; R11 Flam. Liq. 2: H225

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. 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. Get medical aid if irritation develops or persists. 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 a t least 15 minutes. Get medical aid. Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

In Case of Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Treat symptomatically and supportively. Get medical aid if irritation or symptoms occur. If swallowed, wash out mouth with water provided person is conscious. Call a physician. Wash mouth out with

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.

Section 5. Fire Fighting Measures

5.1	**Suitable Extinguishing Media:**	Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam. In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Suitable: Water spray. Use water spray, dry chemical, carbon dioxide, or chemical foam.
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. Dust from this material can form explosive organic dust cloud. Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Dusts at sufficient concentrations can form explosive mixtures with air.

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. Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL. Evacuate area. PROCEDURE(S) OF PERSONAL PRECAUTION(S) Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves. Methods for cleaning up. Absorb on sand or vermiculite and place in closed containers for disposal. Do not let this chemical enter the environment.

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. Minimize dust generation and accumulation. Avoid breathing dust. User Exposure: Do not breathe vapor. Use spark-proof tools and explosion proof equipment. Avoid breathing dust, mist, or vapor. Avoid contact with skin and eyes.
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. Store in a cool, dry place. Suitable: Keep tightly closed. SPECIAL REQUIREMENTS:

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)		
121-33-5	Benzaldehyde, 4-Hydroxy-3-methoxy-			
121-32-4	Benzaldehyde, 3-ethoxy-4-hydroxy-			
118-71-8	3-Hydroxy-2-methyl-4-pyrone			
64-17-5	Ethyl alcohol	TWA: 1920 mg/m3 (1000 ppm) STEL: ()	TWA: 1900 mg/m3 (1000 ppm) STEL: 9500 mg/m3 (5000 ppm)	

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
57-55-6	Propylene glycol			
121-33-5	Benzaldehyde, 4-Hydroxy-3-methoxy-			
121-32-4	Benzaldehyde, 3-ethoxy-4-hydroxy-			
118-71-8	3-Hydroxy-2-methyl-4-pyrone			
64-17-5	Ethyl alcohol	PEL: 1000 ppm	TLV: 1000 ppm	

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. Safety shower and eye bath. Mechanical exhaust required.

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. Chemical safety goggles. Wear chemical splash goggles.

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

Other Protective Clothing: Wear appropriate protective 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. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). 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. 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: 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:	Clear Amber. Graham Cracker 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, Light, dust generation, Moisture, Incompatible materials.
10.5	**Incompatibility - Materials To Avoid:**	Strong oxidizing agents.
10.6	**Hazardous Decomposition Or Byproducts:**	Carbon monoxide, Carbon dioxide, irritating and toxic fumes and gases.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects: Epidemiology: No data available.
Teratogenicity: No data available.
Reproductive Effects: Mutagenicity: Experimental mutagen in human lymphocyte cells.
Neurotoxicity: Other Studies:

Carcinogenicity/Other Information: CAS# 57-55-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 121-33-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 118-71-8: 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.

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. APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Section 14. Transport Information

14.1 LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Not Regulated. Not regulated as a hazardous material.
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:

R22	Harmful if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
S24/25	Avoid contact with skin and eyes.
S22	Do not breathe dust.
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.

Section 16. Other Information

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Additional Information About This Product: