

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:** 00086
Product Name: M Type Premium Flavor
Trade Name: M Type Premium 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]:**
Flammable Liquids, Category 2
- 2.1.2 Classification according to Directive 1999/45/EC:**
Xn: Harmful
F: Highly Flammable
Risk Phrases: R22, R11, R10, 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: Danger

GHS Hazard Phrases:

H225 - Highly flammable liquid and vapor.

GHS Precaution Phrases:

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:

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:

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

P501 - Dispose of contents/container to

2.2.2 Labeling according to Directive 1999/45/EC:



Xn



F

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. May cause reproductive and fetal effects. Laboratory experiments have shown mutagenic effects. Animal studies have reported the development of tumors. Prolonged exposure may cause liver, kidney, and heart damage.

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. Skin: May be harmful if absorbed through skin. May cause skin irritation. Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Causes respiratory tract irritation. May cause narcotic effects in high concentration. Vapors may cause dizziness or suffocation. Material may be irritating to mucous membranes and upper respiratory tract. The toxicological properties of this substance have not been fully investigated. Material is irritating to mucous membranes and upper respiratory tract. No hazard expected in normal industrial use. Dust is irritating to the respiratory tract.

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 cause cyanosis of the extremities. Skin Absorption: May be harmful if absorbed through the skin. Causes skin irritation.

2.3.3 Eye Contact: Dust may cause mechanical irritation. Low hazard for normal industrial handling. May cause slight transient injury. Causes severe eye irritation. May cause painful sensitization to light. May cause chemical conjunctivitis and corneal damage. Dust may cause mechanical irritation. Low hazard for normal industrial handling.

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. Harmful if swallowed. Additional Information.
RTECS: QJ6950000 May cause systemic toxicity with acidosis. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated.

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.
8043-29-6	Vegetable Glycerin	>=10.0 %	NA NA	
3658-77-3	4 - Hydroxy - 2,5 - dimethylfuran - 2(3H) - one	1.0 -10.0 %	222-908-8 NA	No phrases apply.
64-17-5	Ethyl alcohol	1.0 -10.0 %	200-578-6 603-002-00-5	F; R11 Flam. Liq. 2: H225
765-70-8	1,2-Cyclopentanedione, 3-methyl-	1.0 -10.0 %	212-154-8 NA	No phrases apply.
4940-11-8	2 - Ethyl - 3 - hydroxy - 4 - pyrone	1.0 -10.0 %	225-582-5 NA	Xn; R22
22047-25-2	Pyrazin - 1 - ylethan - 1 - one	1.0 -10.0 %	244-753-5 NA	Xn; R22-43
14667-55-1	Pyrazine, Trimethyl-	1.0 -10.0 %	238-712-0 NA	Xn; R22-10
13215-88-8	4 - (2 - Butenylidene) - 3,5,5 - trimethylcyclohex - 2 - en - 1 - one	1.0 -10.0 %	236-187-2 NA	No phrases apply. Acute Tox.(O) 4: H302 Skin Corr. 2: H315
121-33-5	Benzaldehyde, 4-Hydroxy-3-methoxy-	1.0 -10.0 %	204-465-2 NA	No phrases apply.

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. Consult a physician. Remove from exposure and move to fresh air immediately. Do NOT use mouth-to-mouth resuscitation. 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. In case of skin contact, flush with copious amounts of water for at least 15 minutes. Call a physician. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

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. Gently lift eyelids and flush continuously with water. Flush eyes with water as a precaution. 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. 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 victim is conscious and alert, give 2-4 cupfuls of milk or water. If swallowed, wash out mouth with water provided person is conscious. Call a

4.2 Important Symptoms and Effects, Both Acute and Delayed: Note for the Doctor:	<p>physician. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Treat symptomatically and supportively. Get medical aid if irritation or symptoms occur.</p> <p>To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.</p> <p>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. Persons with skin or eye disorders or liver, kidney, chronic respiratory diseases, or central and peripheral nervous system diseases may be at increased risk from exposure to this substance.</p> <p>Antidote: Replace fluid and electrolytes.</p>
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Section 5. Fire Fighting Measures

5.1 Suitable Extinguishing Media:	Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam. 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. Do NOT use straight streams of water. Suitable: Water spray. Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam. For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant 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. Wear self contained breathing apparatus for fire fighting if necessary. Replace fluid and electrolytes. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Combustible liquid. Dust from this material can form explosive organic dust cloud. Emits toxic fumes under fire conditions.

Section 6. Accidental Release Measures

6.3 Methods and Material For Containment and Cleaning Up:	<p>Use proper personal protective equipment as indicated in Section 8.</p> <p>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.</p> <p>Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.</p> <p>Environmental precautions. Do not let product enter drains. Methods for cleaning up.</p>
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Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use a spark-proof tool. A vapor suppressing foam may be used to reduce vapors. Avoid breathing vapors, mist or gas. Sweep up and shovel. **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. Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Absorb on sand or vermiculite and place in closed containers for disposal. Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves. Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

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 formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. Use only in a well-ventilated area. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from heat, sparks and flame. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. User Exposure: Do not breathe dust. Minimize dust generation and accumulation. Do not breathe vapor. Avoid breathing dust. Avoid breathing vapor.

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. Recommended storage temperature: 2 - 8 deg.C. Store under inert gas. Keep away from heat, sparks and flame. Keep away from sources of ignition. Keep from contact with oxidizing materials. Flammables-area. Do not store near perchlorates, peroxides, chromic acid or nitric acid. Suitable: Keep tightly closed.

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)		
8043-29-6	Vegetable Glycerin			
3658-77-3	4 - Hydroxy - 2,5 - dimethylfuran - 2(3H) - one			
64-17-5	Ethyl alcohol	TWA: 1920 mg/m3 (1000 ppm) STEL: ()	TWA: 1900 mg/m3 (1000 ppm) STEL: 9500 mg/m3 (5000 ppm)	
765-70-8	1,2-Cyclopentanedione, 3-methyl-			
4940-11-8	2 - Ethyl - 3 - hydroxy - 4 - pyrone			
22047-25-2	Pyrazin - 1 - ylethan - 1 - one			

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14667-55-1	Pyrazine, Trimethyl-			
13215-88-8	4 - (2 - Butenylidene) - 3,5,5 - trimethylcyclohex - 2 - en - 1 - one			
121-33-5	Benzaldehyde, 4-Hydroxy-3-methoxy-			
CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
57-55-6	Propylene glycol			
8043-29-6	Vegetable Glycerin			
3658-77-3	4 - Hydroxy - 2,5 - dimethylfuran - 2(3H) - one			
64-17-5	Ethyl alcohol	PEL: 1000 ppm	TLV: 1000 ppm	
765-70-8	1,2-Cyclopentanedione, 3-methyl-			
4940-11-8	2 - Ethyl - 3 - hydroxy - 4 - pyrone			
22047-25-2	Pyrazin - 1 - ylethan - 1 - one			
14667-55-1	Pyrazine, Trimethyl-			
13215-88-8	4 - (2 - Butenylidene) - 3,5,5 - trimethylcyclohex - 2 - en - 1 - one			
121-33-5	Benzaldehyde, 4-Hydroxy-3-methoxy-			

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. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. 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. Safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Chemical safety goggles.

Protective Gloves: Wear appropriate protective gloves to prevent skin exposure. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Hand: Compatible chemical-resistant 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. Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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 dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust

Section 11. Toxicological Information

11.1 Information on Toxicological Effects:	<p>Acute toxicity. No data available.</p> <p>Respiratory or skin sensitization: Germ cell mutagenicity. Reproductive toxicity - no data available.</p> <p>Specific target organ toxicity -single exposure (Globally Harmonized System) Specific target organ toxicity -repeated exposure (Globally Harmonized System)</p> <p>Aspiration hazard. Epidemiology: No information found.</p> <p>Teratogenicity: No information available. Reproductive Effects: Mutagenicity: Neurotoxicity: Teratogenicity: No data available.</p> <p>Experimental mutagen in human lymphocyte cells.</p> <p>Other Studies:</p>
Irritation or Corrosion:	No data available.
Carcinogenicity/Other Information:	<p>CAS# 57-55-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 64-17-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65. Carcinogenicity.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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. CAS# 22047-25-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 121-33-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.</p>
Carcinogenicity:	NTP? No IARC Monographs? No OSHA Regulated? No

Section 12. Ecological Information

12.1 Toxicity:	<p>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.</p> <p>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.</p> <p>Physical: No information available.</p> <p>Other: No information available. When released to the atmosphere it will photodegrade in hours (polluted urban atmosphere) to an estimated range of 4 to 6 days in less polluted areas. Rainout should be significant.</p>
12.2 Persistence and Degradability:	No data available.
12.3 Bioaccumulative Potential:	No data available.
12.4 Mobility in Soil:	No data available.

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.

Observe all federal, state, and local environmental regulations. 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.

Contaminated packaging.

Dispose of as unused product. Offer surplus and non-recyclable solutions to a licensed disposal company.

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION. This combustible material may be burned 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. METHANOL. Not regulated as a hazardous material.

DOT Hazard Class:

UN/NA Number:

14.1 LAND TRANSPORT (Canadian TDG):

TDG Shipping Name: Not Regulated. METHANOL. No information available.

14.1 LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name: Not dangerous goods.

UN Number:

Hazard Class:

14.2 MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name: Not dangerous goods.

14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Not dangerous goods. Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15. Regulatory Information

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European Community Hazard Symbol codes:

European Community Risk and Safety Phrases:

R22	Harmful if swallowed.
R11	Highly flammable.
R10	Flammable.
R36/37/38	Irritating to eyes, respiratory system and skin.
S24/25	Avoid contact with skin and eyes.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S16	Keep away from sources of ignition.
S7	Keep container tightly closed.
S37	Wear suitable gloves.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible.)
S28A	After contact with skin, wash immediately with plenty of water.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S22	Do not breathe dust.

Section 16. Other Information

Revision Date: 03/26/2014

**Additional Information About
This Product:**