	accor	ding to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008	
		ation of the Substance/Mixture and of the Company/Unc	dortaking
			lentaking
1.1	Product Code:	00103 Strawbarriag and Croom Flower	
	Product Name:	Strawberries and Cream Flavor	
	Trade Name:	Strawberries and Cream Flavor	
1.2	Relevant identified uses	of the substance or mixture and uses advised against:	
1.3	Details of the Supplier o	•	
	Company Name:	Perfumer's Apprentice	
		170 Technology Circle	
		Scotts Valley, CA 95066	
1.4	Emergency telephone n		
		Section 2. Hazards Identification	
2.1	Classification of the Sub		
2.1.1		g to Regulation (EC) No 1272/2008 [CLP]:	
	Acute Toxicity: Oral, Ca	• •	
	Acute Toxicity: Inhalatio		
	Skin Corrosion/Irritation		
	Serious Eye Damage/Ey		
		Toxicity (single exposure), Category 3	
2.1.2		g to Directive 1999/45/EC:	
	Xn: Harmful C: Corrosive		
	Risk Phrases: R20/22, R	36/37/38 R10 R3/	
	For full text of R- phrase		
2.2	Label Elements:		
2.2.1		Regulation (EC) No 1272/2008 [CLP]:	
	$\wedge$		
	$\mathbf{v}$		
	GHS Signal Word:	Danger	
	GHS Hazard Phrases:		
	H302 - Harmful if swallow	ed.	
	H332 - Harmful if inhaled.		
	H314 - Causes severe ski		
	H318 - Causes serious ey	0	
	H335 - May cause respira	-	
	GHS Precaution Phrases		
	P264 - Wash hands thoro		
		r smoke when using this product.	
	•	or in a well-ventilated area.	
	•	ist/fume/gas/mist/vapours/spray. st/fume/gas/mist/vapours/spray.	
		oves/protective clothing/eye protection/face protection.	
	GHS Response Phrases		
		/ED: Call a POISON CENTER or doctor/physician if you feel unwell.	
	P330 - Rinse mouth.	Domovo victim to freeh air and keen at reat is a section confectable for	rbroothing
		Remove victim to fresh air and keep at rest in a position comfortable for INTER/doctor/ if you feel unwell.	n breathing.
	F 512 - Gall a FUISUN GE		
License	ed to Perfumers Apprentice: MIR	S MSDS, (c) A V Systems, Inc.	Multi-region format

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

P363 - Wash contaminated clothing before reuse.

P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P310 - Immediately call a POISON CENTER/doctor/....

P321 - Specific treatment see ... on this label.

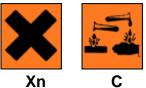
#### **GHS Storage and Disposal Phrases:**

P501 - Dispose of contents/container to ....

P405 - Store locked up.

P403+233 - Store container tightly closed in well-ventilated place - if product is as volatile as to generate hazardous atmosphere.

#### 2.2.2 Labeling according to Directive 1999/45/EC:



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

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. Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled. No hazard expected in normal industrial use. Dust is irritating to the respiratory tract. Vapors may cause dizziness or suffocation. Vapor or mist is irritating to the mucous membranes and upper respiratory tract. The toxicological properties of this substance have not been fully investigated. Aspiration may lead to pulmonary edema. May cause burning sensation in the chest. Causes respiratory tract irritation. Material has a very low vapor pressure at room temperature, so inhalation exposures are not expected unless material is heated or misted. Causes chemical burns 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) Skin Absorption: May be harmful if absorbed through the skin. Dust may cause mechanical irritation. Low hazard for normal industrial handling. Causes skin irritation.

May cause irritation and dermatitis. May cause cyanosis of the extremities. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis. Causes redness

	and pain. Contact with the skin may cause a local anesthetic effect. Material is a weak skin sensitizer. In an acute dermal irritation study in rats, two of six animals exhibited liver damage. Harmful if absorbed through the skin. Causes skin burns.
2.3.3 Eye Contact:	May cause slight transient injury. Low hazard for normal industrial handling. Vapors may cause eye irritation. May cause chemical conjunctivitis and corneal damage. Causes severe eye irritation. Causes redness and pain. Causes eye burns.
2.3.4 Ingestion:	Low hazard for usual industrial handling. May cause hemoglobinuric nephrosis. May cause changes in surface EEG. Harmful if swallowed. Vapor or mist is irritating to the eyes, mucous membranes, and upper respiratory tract. The toxicological properties of this substance have not been fully investigated. Ingestion of large amounts may cause central nervous system depression. May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns.

# 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.
4940-11-8	2 - Ethyl - 3 - hydroxy - 4 - pyrone	1.0 -10.0 %	225-582-5 NA	Xn; R22
1754-62-7	Methyl trans-cinnamate	1.0 -10.0 %	NA NA	
121-33-5	Benzaldehyde, 4-Hydroxy-3-methoxy-	1.0 -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
105-54-4	Ethyl butyrate	1.0 -10.0 %	203-306-4 NA	R10
7452-79-1	Ethyl 2 - methylbutyrate	1.0 -10.0 %	231-225-4 NA	R10
100-51-6	Benzenemethanol	1.0 -10.0 %	202-859-9 603-057-00-5	Xn; R20/22 Acute Tox.(O) 4: H302 Acute Tox.(I) 4: H332
141-97-9	Ethyl acetoacetate	1.0 -10.0 %	205-516-1 NA	No phrases apply. Skin Corr. 2: H315 Eye Damage 1: H318 TOST (SE) 3: H335 H336
123-66-0	Ethyl butyl acetate	1.0 -10.0 %	204-640-3 NA	R10
138-86-3	Dipentene	< 0.5 %	205-341-0 601-029-00-7	Xi; N; R10-38-43-50/53 Flam. Liq. 3: H226 Skin Corr. 2: H315 Skin Sens. 1: H317 Aquatic (A) 1: H400 Aquatic (C) 1: H410

Licensed to Perfumers Apprentice: MIRS MSDS, (c) A V Systems, Inc.

		Section 4. First Aid Measures
4.1	Description of First Air Measures:	d
	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. Get medical aid immediately. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
	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. In case of skin contact, flush with copious amounts of water for at least 15 minutes. Call a physician. 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. Get medical aid immediately. Destroy contaminated 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. 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. Get medical aid immediately. In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).
	In Case of Ingestion:	Never give anything by mouth to an unconscious person. Get medical aid. 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. Treat symptomatically and supportively. Get medical aid if irritation or symptoms occur. Get medical aid if immediately. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. 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. Blood benzyl alcohol and benzoic acid and urine hippuric acid may be helpful in diagnosis.
		Section 5. Fire Fighting Measures
5.1	Suitable Extinguishing Media:	<b>g</b> Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam. Suitable: Water spray. In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Media: spray. In case of fire, use water, dry chemical, carbon dioxide, or alcohol-resistant roam. Solitable: water spray. In case of fire, use water, dry chemical, chemical foam, 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. Use water spray, dry chemical, carbon dioxide, or appropriate foam. Use dry chemical, carbon dioxide, or alcohol-resistant foam. Water spray may cause frothing. 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. Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or chemical foam.

#### 5.2 Flammable Properties and Hazards:

#### Flash Pt:

Licensed to Perfumers Apprentice: MIRS MSDS, (c) A V Systems, Inc.

	Explosive Limits: Autoignition Pt:	LEL:	UEL:
5.	3 Fire Fighting Instructions:	MSHA/NIOSH (app and highly toxic gas Protective Equipme to prevent contact w form explosive orga can travel to a source spray to keep fire-e. Water may be ineffe use of water. Flamm a source of ignition low or confined area	a self-contained breathing apparatus in pressure-demand, roved or equivalent), and full protective gear. During a fire, irritating es may be generated by thermal decomposition or combustion. Int: Wear self-contained breathing apparatus and protective clothing with skin and eyes. Specific Hazard(s): Dust from this material can nic dust cloud. Vapors may form explosive mixtures with air. Vapors ce of ignition and flash back. Will burn if involved in a fire. Use water exposed containers cool. Containers may explode in the heat of a fire. ective. Material is lighter than water and a fire may be spread by the nable liquid and vapor. Vapors are heavier than air and may travel to and flash back. Vapors can spread along the ground and collect in as. Emits toxic fumes under fire conditions. Combustible liquid. blode when heated. They can spread along the ground and collect in as.
	:	Section 6. Acc	idental Release Measures
6.	3. Methods and Material For Containment and Cleaning Up:	Spills/Leaks: Absor in suitable containe Equipment section. LEAK OR SPILL. E Wear self-containe Methods for cleanin Sweep up, place in appropriate precau inhalation of dust. Ventilate area and dusty conditions. A disposal. Remove a foam may be used lead to waterways. rubber gloves. Do not let this chem non-flammable mix	al protective equipment as indicated in Section 8. b spill with inert material (e.g. vermiculite, sand or earth), then place r. Clean up spills immediately, observing precautions in the Protective Provide ventilation. PROCEDURE TO BE FOLLOWED IN CASE OF vacuate area. PROCEDURE(S) OF PERSONAL PRECAUTION(S) d breathing apparatus, rubber boots, and heavy rubber gloves. ng up. a bag and hold for waste disposal. Avoid raising dust. Exercise tions to minimize direct contact with skin or eyes and prevent wash spill site after material pickup is complete. Avoid generating boorb on sand or vermiculite and place in closed containers for all sources of ignition. Use a spark-proof tool. A vapor suppressing to reduce vapors. Avoid runoff into storm sewers and ditches which Wear respirator, chemical safety goggles, rubber boots, and heavy hical enter the environment. Use water spray to dilute spill to a ture. Use water spray to disperse the gas/vapor. Absorb spill with an ch as soda ash or lime. Carefully scoop up and place into appropriate
		Section 7.	Handling and Storage
7	7.1 Precautions To Be Taken in Handling:	Use with adequate container tightly clo dust. Avoid inhalatio Do not breathe vap spark-proof tools ar residue, (liquid and/ not pressurize, cut, sparks or open flam	ter handling. Remove contaminated clothing and wash before reuse. ventilation. Avoid contact with eyes, skin, and clothing. Keep sed. Avoid ingestion and inhalation. User Exposure: Do not breathe on. Minimize dust generation and accumulation. Avoid breathing dust. or. Ground and bond containers when transferring material. Use id explosion proof equipment. Empty containers retain product or vapor), and can be dangerous. Wash clothing before reuse. Do weld, braze, solder, drill, grind, or expose empty containers to heat, es. Keep away from heat and flame. Avoid breathing dust, mist, or well-ventilated area. Do not get in eyes, on skin, or on clothing. Do

Licensed to Perfumers Apprentice: MIRS MSDS, (c) A V Systems, Inc.

	utions To Be in Storing:	Store in a tightly cl incompatible subs place. Keep tightly ignition. Flammabl	e. Discard contaminated sh osed container. Store in a c tances. Store protected fror closed. SPECIAL REQUIF es-area. Keep away from h tainer closed when not in u	cool, dry, well-ventila m moisture. Suitable REMENTS: Keep awa neat and flame. Do no	: Store in a cool, dry ay from sources of ot store in direct
	Sectio	n 8. Exposu	re Controls/Perso	nal Protection	h
B.1 Expo	sure Parameters:				
CAS #	Partial Chemical N	lame	Britain EH40	France VL	Europe
57-55-6	Propylene glycol		TWA: 474 mg/m3 (150 ppm) (Total Particulates) TWA: 10 mg/m3 (Powder)		
4940-11-8	2 - Ethyl - 3 - hydro	xy - 4 - pyrone			
1754-62-7	Methyl trans-cinnar	nate			
121-33-5	Benzaldehyde, 4-H	ydroxy-3-methoxy-			
121-32-4	Benzaldehyde, 3-et	hoxy-4-hydroxy-			
105-54-4	Ethyl butyrate				
7452-79-1	Ethyl 2 - methylbuty	/rate			
100-51-6	Benzenemethanol				
141-97-9	Ethyl acetoacetate				
123-66-0	Ethyl butyl acetate				
138-86-3	Dipentene				
CAS #	Partial Chemical N	lame	OSHA TWA	ACGIH TWA	Other Limits
57-55-6	Propylene glycol				
		xy - 4 - pyrone			
4940-11-8	2 - Ethyl - 3 - hydro				
4940-11-8 1754-62-7	2 - Ethyl - 3 - hydro Methyl trans-cinnar	nate			
1754-62-7	Methyl trans-cinnar	ydroxy-3-methoxy-			
1754-62-7 121-33-5	Methyl trans-cinnar Benzaldehyde, 4-H	ydroxy-3-methoxy-			
1754-62-7 121-33-5 121-32-4	Methyl trans-cinnar Benzaldehyde, 4-H Benzaldehyde, 3-et	ydroxy-3-methoxy- hoxy-4-hydroxy-			
1754-62-7 121-33-5 121-32-4 105-54-4	Methyl trans-cinnar Benzaldehyde, 4-H Benzaldehyde, 3-et Ethyl butyrate	ydroxy-3-methoxy- hoxy-4-hydroxy-			
1754-62-7 121-33-5 121-32-4 105-54-4 7452-79-1	Methyl trans-cinnar Benzaldehyde, 4-H Benzaldehyde, 3-et Ethyl butyrate Ethyl 2 - methylbuty	ydroxy-3-methoxy- hoxy-4-hydroxy-			
1754-62-7 121-33-5 121-32-4 105-54-4 7452-79-1 100-51-6	Methyl trans-cinnar Benzaldehyde, 4-H Benzaldehyde, 3-et Ethyl butyrate Ethyl 2 - methylbuty Benzenemethanol	ydroxy-3-methoxy- hoxy-4-hydroxy-			

8.2	Exposure Controls:	
	•	Excitize storing or utilizing this material should be equipped with an everyosh facility and
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. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels. Local exhaust may be necessary to control concentrations to acceptable levels.
8.2.2	Personal protection e	quipment:
	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. Hand: Compatible chemical-resistant gloves. Protective gloves. Eyes:
	Other Protective Clothing:	Wear appropriate protective clothing to prevent skin exposure.
	(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 dust mask type N95 (US) or type P1 (EN 143) respirator. Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. 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. Hand: Compatible chemical-resistant gloves.
		ation 0. Dhysical and Chemical Properties
		ction 9. Physical and Chemical Properties
9.1		Physical and Chemical Properties
	Physical States:	[]Gas [X]Liquid []Solid
	Appearance and Odor:	Transparent Colorless. Strawberries and cream taste and aroma.
	Melting Point: Boiling Point: Flash Pt: Evaporation Rate:	
	Explosive Limits: Vapor Pressure (vs. Air mm Hg):	
	Vapor Density (vs. Air :	= 1):
License	ed to Perfumers Apprentice: MI	IRS MSDS, (c) A V Systems, Inc. Multi-region format

	Specific Gravity (Water	r = 1):
	Solubility in Water:	
	Autoignition Pt:	
9.2	Other Information	
0.2	Percent Volatile:	
	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	Will occur [ ] Will not occur [ X ]
	Hazardous Reactions:	
10.4	Conditions To Avoid -	Excess heat, moist air, Light, dust generation, Moisture, Incompatible materials, ignition
-	Instability:	sources, alkaline materials.
10.5	Incompatibility -	Strong oxidizing agents, acids, Bases, Heat, Strong bases, hydrogen bromide gas, iror
	Materials To Avoid:	at 100C(exothermic polymerization), Corrosive to iron, Steel, Ammonia, Sulfuric acid,
		isocyanates, epichlorohydrin, aliphatic amines, caustics (e.g. ammonia, ammonium hydroxide, calcium hydroxide, potassium hydroxide, sodium hydroxide).
10.6	Hazardous	Carbon monoxide, Carbon dioxide, irritating and toxic fumes and gases.
	Decomposition Or	
	Byproducts:	
		Section 11. Toxicological Information
11.1	Information on	Epidemiology: No data available.
	Toxicological Effects:	Teratogenicity: No data available.
	rexidencylear Encotor	Reproductive Effects: Mutagenicity: Experimental mutagen in human lymphocyte cells.
		Neurotoxicity: Other Studies: No information available.
		Teratogenicity: No information available.
		No information found.
	Carcinogenicity/Other	CAS# 57-55-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 121-33-5: Not
	Information:	listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 105-54-4: Not listed by ACGIH,
		IARC, NTP, or CA Prop 65. CAS# 7452-79-1: Not listed by ACGIH, IARC, NTP, or CA
		Prop 65. CAS# 100-51-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS#
		123-66-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 695-06-7: Not listed
		by ACGIH, IARC, NTP, or CA Prop 65. CAS# 107-92-6: Not listed by ACGIH, IARC,
		NTP, or CA Prop 65. CAS# 539-88-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65
Carci	nogenicity:	NTP? No IARC Monographs? No OSHA Regulated? No
Juioi	nogemeny.	
		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
		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.

If released to soil, benzyl alcohol is expected to display high mobility and readily leach through soil. Volatilization from dry soil to the atmosphere may be an important fate process; however, it is not expected to be an important process in moist soils. If released to water, benzyl alcohol is expected to undergo microbial degradation under aerobic and anaerobic conditions.

Physical: In the atmosphere, benzyl alcohol is expected to exist almost entirely in the vapor phase. The estimated half-life for the vapor phase reaction of benzyl alcohol with photochemically produced hydroxyl radicals is 2 days. ELIMINATION.

If released to soil, butyric acid is expected to be relatively mobile, although adsorption may occur by attractive interactions with active sites in the soil. Butyric acid is not expected to significantly volatilize from either moist or dry soil to the atmosphere. If released to water, butyric acid will exist predominately in the dissociated form under environmental conditions. Butyric acid is expected to biodegrade rapidly under both aerobic and anaerobic conditions.

Physical: BOD: 1.150 lb/lb, 5 days; 1.450 lb/lb, 20 days.

## 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. 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. Not regulated as a hazardous material. ETHYL BUTYRATE. FLAMMABLE LIQUIDS, N.O.S. 2-Ethylbutyl acetate. No information available. ISOBUTYRIC ACID.

DOT Hazard Class: UN/NA Number:

#### 14.1 LAND TRANSPORT (Canadian TDG):

**TDG Shipping Name:** Not Regulated. No information available. ETHYL BUTYRATE. ISOBUTYRIC ACID.

#### 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 Haz	ard Symbol codes:
European Community Ris	k and Safety Phrases:
R20/22	Harmful by inhalation and if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
R10	Flammable.
R34	Causes burns.
S24/25	Avoid contact with skin and eyes.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S22	Do not breathe dust.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S16	Keep away from sources of ignition.
S33	Take precautionary measures against static discharges.
S9	Keep container in a well-ventilated place.
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.
	Section 16. Other Information
Revision Date:	Section 16. Other Information
	03/26/2014
Additional Information Abo	03/26/2014
Revision Date: Additional Information Abo This Product:	03/26/2014
Additional Information Abo	03/26/2014