

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT CODE

PRODUCT NAME

SUPPLIER

Shanghai M & U International Trade Co., Ltd. Rm 1717, No 598 North NuJiang Road 200333 Shanghai, China +86-21-32515501 32515502 sales@mu-intel.com

FOR EMERGENCIES CALL CHEMTREC:

800-424-9300 (24-HOURS)

2. HAZARD IDENTIFICATION:

Emergency Overvie	W		
OSHA Hazards			
Combustible Liquid, Target Organ Effect, Toxic by ingestion, Irritant			
Target Organs			
Kidney			
GHS Classification			
Flammable liquids (Category 4)			
Acute toxicity, Oral (Category 4)			
Acute toxicity, Derm	Acute toxicity, Dermal (Category 5)		
Skin irritation (Category 2)			
Serious eye damage (Category 1)			
GHS Label elements, including precautionary statements			
Pictogram			
Signal word	Danger		
Hazard statement(s)			
H227	Combustible liquid		
H302	Harmful if swallowed.		
H313	May be harmful in contact with skin.		
H315	Causes skin irritation.		
H318	Causes serious eye damage.		
Precautionary statement(s)			
P280	Wear protective gloves/ eye protection/ face protection.		
P305 P351 P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove		
	contact lenses, if present and easy to do. Continue rinsing.		
HMIS Classification			
Health hazard	2		
Flammability	2		

A0390

STYRALLYL ALCOHOL

Physical hazards	1		
NFPA Rating			
Health hazard	2		
Fire	2		
Reactivity Hazard	0		
Potential Health Effects			
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.		
Skin	May be harmful if absorbed through skin. Causes skin irritation		
Eyes	Causes eye irritation.		
Ingestion	Toxic if swallowed.		

3. COMPOSITION AND INFORMATION ON INGREDIENTS:

Synonym Formula Molecular Weight	1-Phenylethanol C8 H10 O 122.16 g/mol		
CAS-No 98-85-1	EC-No 202-707-1	Index-No.	Concentration

4. FIRST-AID GUIDE:

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING GUIDE:

Suitable extinguishing media

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. Cool all affected containers with flooding quantities of water.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions.- Carbon oxides.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE GUIDE:

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wetbrushing and place in container for disposal according to local regulations. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE:

Precautions for safe handling

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 buildup of electrostatic charge.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE AND PERSONAL PROTECTION:

Contains no substances with occupational exposure limit values.

Personal protective equipment:

Respiratory protection

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 protection

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.

Eye protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance		
Form	LIQUID	
Color	COLORLESS	TO PALE YELLOW
Safety data		
Melting point (°C)		21.5
Boiling point (°C)		200
Flash point (°F) Closed cup		185
Vapor pressure (mmHg@20°	°C)	0.03
Density @25 °C		1.012
Water solubility		SOLUBLE
Relative vapor density		<1
Odor		ALCOHOLIC

10. STABILITY AND REACTIVITY:

Chemical stability Stable under recommended storage conditions. Conditions to avoid Heat, flames and sparks. Materials to avoid Strong acids, Strong oxidizing agents Hazardous decomposition products Hazardous decomposition products

11. TOXICOLOGICAL INFORMATION:

Acute toxicity Oral LD50 LD50 Oral - rat - 400 mg/kg Dermal LD50 LD50 Dermal - rabbit - 2,500 mg/kg Skin corrosion/irritation Skin - rabbit - Skin irritation - 24 h Serious eye damage/eye irritation Eyes - rabbit - Severe eye irritation Eyes - rabbit - Severe eye irritation Germ cell mutagenicity Genotoxicity in vitro - mouse - lymphocyte Mutation in mammalian somatic cells.

Genotoxicity in vitro - Hamster - ovary

Cytogenetic analysis

Carcinogenicity

Carcinogenicity - rat - Oral

Tumorigenic: Neoplastic by RTECS criteria. Kidney, Ureter, Bladder: Kidney tumors. This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH,

NTP, or EPA classification.

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.

Potential health effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	Toxic if swallowed.
Skin	May be harmful if absorbed through skin. Causes skin irritation
Eyes	Causes eye irritation.

Signs and Symptoms of Exposure

Cough, Shortness of breath, Headache, Nausea, Vomiting

Additional Information

RTECS: DO9275000

12. ECOLOGICAL INFORMATION:

Toxicity

Toxicity to fish LC50 - Leuciscus idus (Golden orfe) - 345 mg/l - 48 h

13. DISPOSAL RECOMMENDATIONS:

Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORTATION INFORMATION:

DOT (US)

UN number: 2937 Class: 6.1 Packing group: III Proper shipping name: alpha-METHYLBENZYL ALCOHOL, LIQUID IMDG UN number: 2937 Class: 6.1 Packing group: III Proper shipping name: alpha-METHYLBENZYL ALCOHOL, LIQUID IATA UN number: 2937 Class: 6.1 Packing group: III Proper shipping name: alpha-METHYLBENZYL ALCOHOL, LIQUID

15. REGULATORY INFORMATION:

OSHA Hazards

Combustible Liquid, Target Organ Effect, Toxic by ingestion, Irritant

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

1-Phenylethanol CAS-No. Revision Date 98-85-1

New Jersey Right To Know Components

1-Phenylethanol CAS-No. Revision Date 98-85-1

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION:

The information in this MSDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond M&U's control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage, or expense arising out of the products improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission in the MSDS. Various federal, state, or provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or

disposal of this product which may not be reflected in the MSDS. The user should review these regulations to ensure full compliance.