



## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION:

**PRODUCT CODE** A0342  
**PRODUCT NAME** BETA-HOMOCYCLOCITRAL  
**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 Overview

#### OSHA Hazards

Combustible Liquid

#### GHS Classification

Flammable liquids (Category 4)

Skin irritation (Category 2)

Eye irritation (Category 2A)

Specific target organ toxicity- single exposure (Category 3)

#### GHS Label elements, including precautionary statements

Pictogram

Signal word Warning

#### Hazard statement(s)

H227 Combustible liquid  
H315 Causes skin irritation  
H319 Causes serious eye irritation  
H335 May cause respiratory irritation.

#### Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces- No smoking.  
P261 Avoid breathing dust/fume/mist/vapors/spray.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302, P352 IF ON SKIN: Wash with plenty of soap and water.  
P304, P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305, P351, P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call POISON CENTER or doctor/physician if you feel unwell.  
 P321 Specific treatment (see supplemental first aid instructions on this label).  
 P332, P313 If skin irritation occurs: Get medical advice/attention.  
 P337, P313 If eye irritation occurs: Get medical advice/attention.  
 P362 Take off contaminated clothing and wash before reuse.  
 P370, P378 In case of fire" Use dry sand, dry chemical or alcohol-resistant foam for extinction.

P403, P233 Store in well-ventilated place. Keep container tightly closed.  
 P403, P235 Store in a well ventilated place. Keep cool.  
 P405 Store locked up.  
 P501 Dispose of contents/container to an approved waste disposal plant.

**HMIS Classification**

Health hazard 1  
 Flammability 2  
 Physical hazards 1

**NFPA Rating**

Health hazard 1  
 Fire 2  
 Reactivity Hazard 0

**Potential Health Effects**

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

**3. COMPOSITION AND INFORMATION ON INGREDIENTS:**

**Synonym** 2,6,6-Trimethyl-1-cyclohexene-1-acetaldehyde  
**Formula** C11 H18 O  
**Molecular Weight** 166.26 g/mol

CAS-No	EC-No	Index-No.	Concentration
472-66-2	207-454-0		

**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 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 to spray unopened containers to cool.

**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 wet-brushing 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 multipurpose 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**

Safety glasses with side shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection**

Impervious clothing. 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)	no data available
Boiling point (°C)	>200
Flash point (°F) Closed cup	164
Vapor pressure (mmHg@20°C)	no data available
Density @25 °C	0.942
Water solubility	INSOLUBLE
Relative vapor density	>1
Odor	FRUITY

**10. STABILITY AND REACTIVITY:**

**Chemical stability**

Stable under recommended storage conditions.

**Conditions to avoid**

Heat, flames and sparks. Extremes of temperature and direct sunlight.

**Materials to avoid**

Strong oxidizing agents, Strong bases, Strong acids

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

## 11. TOXICOLOGICAL INFORMATION:

### **Carcinogenicity**

#### **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.

### **Specific target organ toxicity - single exposure (Globally Harmonized System)**

Inhalation- May cause respiratory irritation

### **Potential health effects**

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin May cause skin irritation.

Eyes May cause eye irritation.

### **Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

### **Additional Information**

RTECS: Not available

## 12. 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.

### **Contaminated packaging**

Dispose of as unused product.

## 13. TRANSPORTATION INFORMATION:

### **DOT (US)**

Not dangerous goods.

### **IMDG**

Not dangerous goods.

### **IATA**

Not dangerous goods.

## 14. REGULATORY INFORMATION:

### OSHA Hazards

Combustible liquid.

### 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

### Massachusetts Right To Know Components

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

### Pennsylvania Right To Know Components

2,6,6-Trimethyl-1-cyclohexene-1-acetaldehyde	CAS-No. 472-66-2
----------------------------------------------	---------------------

### New Jersey Right To Know Components

2,6,6-Trimethyl-1-cyclohexene-1-acetaldehyde	CAS-No. 472-66-2
----------------------------------------------	---------------------

### 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.

## 15. 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.