



## SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION:

**PRODUCT CODE** A0215  
**PRODUCT NAME** MALONIC ACID  
**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 -

Toxic by inhalation. Harmful by ingestion. Irritant

#### GHS Classification

Acute toxicity, Inhalation (Category 5)  
Acute toxicity, Oral (Category 4)  
Skin irritation (Category 3)  
Serious eye damage (Category 1)

#### GHS Label elements, including precautionary statements

#### Signal word

Danger

#### Hazard statement(s)

H302 Harmful if swallowed  
H316 Causes mild skin irritation.  
H318 Causes serious eye damage.  
H333 May be harmful if inhaled.

#### Precautionary statement(s) none

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 1

Flammability 1  
Physical hazards 1

**NFPA Rating**

Health hazard 0

Fire 0

Reactivity Hazard 0

**Potential Health Effects**

**Inhalation**

Toxic if inhaled. Causes respiratory tract irritation.

**Skin**

Harmful if absorbed through skin. Causes skin irritation.

**Eyes**

Causes eye irritation.

**Ingestion**

Harmful if swallowed

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

SYNONYM	Propanedioic acid
Formula	C <sub>3</sub> H <sub>4</sub> O <sub>4</sub>
Molecular Weight	104.06 g/mol
CAS-No	141-82-2
EC-No	205-503-0
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**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**5. FIRE-FIGHTING GUIDE:****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for firefighting if necessary.

**Hazardous combustion products**

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

**6. ACCIDENTAL RELEASE GUIDE:****Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**Environmental precautions**

Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**7. HANDLING AND STORAGE:****Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Normal measures for preventive fire protection.

**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.

KEEP IN A DRY PLACE.

**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**

Face shield and safety glasses 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:**

<b>Appearance</b>	
<b>Form</b>	Solid
<b>Colour</b>	white to off white
<b>Safety data</b>	
<b>pH</b>	no data available
<b>Melting point (°C)</b>	135
<b>Boiling point (°C)</b>	no data available
<b>Flash point (°F) Closed cup</b>	>200
<b>Ignition temperature</b>	580 °C (1,076 °F)
<b>Auto ignition temperature</b>	no data available
<b>Lower explosion limit</b>	no data available
<b>Upper explosion limit</b>	no data available
<b>Vapour pressure (mm Hg@20 °C)</b>	no data available
<b>Density @25 °C</b>	1.600
<b>Water solubility</b>	soluble
<b>Partition coefficient n-octanol/water</b>	no data available
<b>Relative vapour density</b>	no data available
<b>Odor</b>	Acetic acid-like
<b>Odour Threshold</b>	no data available

<b>Evaporation rate</b>	no data available
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## 10. STABILITY AND REACTIVITY:

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

No data available

### Conditions to avoid

No data available

### Materials to avoid

Bases, Oxidizing agents, Reducing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

### Other decomposition products

No data available

## 11. TOXICOLOGICAL INFORMATION:

### Acute toxicity

<b>Oral</b>	<b>LD50</b>	rat	1,310 mg/kg
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Remarks: Behavioral:Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration:Dyspnea.

Cyanosis

Inhalation	LC50	rat	1 h	> 8,989 mg/m3
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**Dermal LD50** - no data available

### Other information on acute toxicity

No data available

### Skin corrosion/irritation

Skin - rabbit - Mild skin irritation - 24 h

### Serious eye damage/eye irritation

Eyes - rabbit - Severe eye irritation

### Respiratory or skin sensitization

No data available

### Germ cell mutagenicity

Genotoxicity in vivo - rat – Oral  
Morphological transformation.

### **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.

### **Reproductive toxicity**

No data available

### **Teratogenicity**

No data available

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

No data available

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

No data available

### **Aspiration hazard**

No data available

### **Potential health effects**

#### **Inhalation**

Toxic if inhaled. May cause respiratory tract irritation.

#### **Ingestion**

Harmful if swallowed.

#### **Skin**

Harmful if absorbed through skin May cause skin irritation.

#### **Eyes**

Causes eye irritation.

### Signs and Symptoms of Exposure

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### Synergistic effects

No data available

### Additional Information

RTECS: Not available

## 12. ECOLOGICAL INFORMATION:

### Toxicity

Toxicity to fish	LC50	Lepomis macrochirus	150 mg/l - 24 h
Toxicity to daphnia and other aquatic invertebrates	EC50	Daphnia magna (Water flea)	275 mg/l - 48 h

### Persistence and degradability

No data available

### Bioaccumulative potential

No data available

### Mobility in soil

No data available

### PBT and vPvB assessment

No data available

### Other adverse effects

No data available

## 13. DISPOSAL RECOMMENDATIONS:

### Product

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:

<b>DOT (US)</b>	Not dangerous goods.
<b>IMDG</b>	Not dangerous goods.
<b>IATA</b>	Not dangerous goods.

#### 15. REGULATORY INFORMATION:

##### **OSHA Hazards**

Toxic by inhalation. Harmful 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**

Acute Health Hazard

##### **Massachusetts Right to Know Components**

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

##### **Pennsylvania Right to Know Components**

Malonic acid      CAS-No. 141-82-2      Revision Date

##### **New Jersey Right To Know Components**

Malonic acid      CAS-No. 141-82-2      Revision Date

##### **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 SDS 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 SDS. 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 SDS. The user should review these regulations to ensure full compliance.

**Prepared By:** M&U International LLC

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