



## MATERIAL 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

Pictogram	Signal word
No pictogram	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	C3 H4 O4
Molecular Weight	104.06 g/mol
CAS-No	EC-No
141-82-2	205-503-0

**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 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 vapor 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:

### Appearance

Form	Solid
Color	white to off white

### Safety data

pH	no data available
Melting point (°C)	135
Boiling point (°C)	no data available
Flash point (°F)	Closed cup >200
Ignition temperature	580 °C (1,076 °F)
Auto ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapor pressure (mm Hg @20 °C)	no data available
Density @25 °C	1.600
Water solubility	soluble
Partition coefficient: n-octanol/ water	no data available
Relative vapor density	no data available
Odor	Acetic acid-like
Odor Threshold	no data available
Evaporation rate	no data available

## 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**

**Oral LD50** - rat - 1,310 mg/kg

Remarks: Behavioral: Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration: Dyspnea  
Cyanosis

**Inhalation LC50**

Rat - 1 h - > 8,989 mg/m<sup>3</sup>

**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 components 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 components 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 components 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 components 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:**

### **DOT (US)**

Not dangerous goods

### **IMDG**

Not dangerous goods

### **IATA**

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

### **New Jersey Right to Know Components**

Malonic acid	CAS-No
	141-82-2

### **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

## **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.