

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT CODE A0113

PRODUCT NAME 2-METHYL-2-PENTENOIC 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

Corrosive

GHS Classification

Skin corrosion (Category 1B) Serious eye damage (Category 1)

GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)

H314 Causes severe skin burns and eye damage.

Precautionary statement(s)

P280 Wear protective gloves/ protective clothing/ 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.

P310 Immediately call a POISON CENTER or doctor/physician..

HMIS Classification

Health hazard 2 Flammability 1 Physical hazards 2

NFPA Rating

Health hazard 2
Fire 1
Reactivity Hazard 0

Potential Health Effects

Inhalation May be harmful if inhaled. Material is extremely destructive to the tissue of the

mucous membranes and upper respiratory tract.

Skin May be harmful if absorbed through skin. Causes skin burns.

Eyes Causes eye burns.

Ingestion May be harmful if swallowed

3. COMPOSITION AND INFORMATION ON INGREDIENTS:

Formula C6H10O2 Molecular Weight 114.14 g/mol

CAS-No EC-No 3142-72-1 221-552-0

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

Take off contaminated clothing and shoes immediately. 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. Continue rinsing eyes during transport to hospital.

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

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 formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated 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 particle respirator type N100 (US) or type P3 (EN 143) 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.

Eve protection

Safety glasses with face shield 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

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 COLORLESS TO PALE YELLOW

Safety data

Melting point (°C) 25

Boiling point (°C) 133

Flash point ($^{\circ}$ F) Closed cup >200

Density @25 °C 0.979

Water solubility INSOLUBLE

Odor FRUITY, STRAWBERRY-LIKE

10. STABILITY AND REACTIVITY:

Chemical stability

Stable under recommended storage conditions.

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.

Potential health effects

Inhalation May be harmful if inhaled. Material is extremely destructive to the tissue of the

mucous membranes and upper respiratory tract.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. Causes skin burns.

Eyes Causes eye burns. **Signs and Symptoms of Exposure**

Cough, Shortness of breath, Headache, Nausea, Vomiting

12. 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. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

13. TRANSPORTATION INFORMATION:

DOT (US)

UN number: 3261 Class: 8 Packing group: III

Proper shipping name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.

IMDG

UN number: 3261 Class: 8 Packing group: III

Proper shipping name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.

IATA

UN number: 3261 Class: 8 Packing group: III

Proper shipping name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.

14. REGULATORY INFORMATION:

OSHA Hazards

Corrosive

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

2-METHYL-2-PENTENOIC ACID CAS-No. 3142-72-1

New Jersey Right To Know Components

2-METHYL-2-PENTENOIC ACID CAS-No. 3142-72-1

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.

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.

Prepared by Shanghai M&U International, LLC

