

MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Material Name: Methyl methacrylate.
Catalogue Number: C651.
Other Names: 2-Propanoic acid, 2-Methyl-, methyl ester.
Recommended Use: Resin.

Supplier Name: ProSciTech
Street Address: 1/11 Carlton Street, Kirwan, Qld. 4817 Australia
Telephone Number: (07) 4773 9444 **Fax Number:** (07) 4773 2244
Emergency Contact: (07) 4773 9444 8:30am – 5:00pm, Monday to Friday

SECTION 2 - HAZARDS IDENTIFICATION

Hazard Classification: Hazardous according to criteria of NOHSC.
Hazardous and/or Dangerous Nature: HAZARDOUS SUBSTANCE. DANGEROUS GOODS.
Risk Phrases: R11 Highly flammable.
 R37/38 Irritating to respiratory system and skin.
 R43 May cause sensitisation by skin contact.
Safety Phrases: S2 Keep locked up.
 S24 Avoid contact with skin.
 S37 Wear suitable gloves.
 S46 If swallowed, seek medical advice immediately and show this container or label.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE: **Chemical Identity:** Methyl methacrylate.
Common Name(s): 2-Propanoic acid, 2-Methyl-, methyl ester.
CAS Number(s): 80-62-6

MIXTURE:

Ingredients	Cas Number(s)	Proportion (%)
Methyl 2-methylprop-2-enoate; Methyl 2-methylpropenoate	80-62-6	99.8
Other ester adducts	N/A	0.2
4-Methoxyphenol (MEHQ)	150-76-5	0.005

SECTION 4 - FIRST AID MEASURES

Swallowed: Drink two glasses of water. SEEK IMMEDIATE MEDICAL AID.
Eye: Flush with plenty of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Seek medical attention.
Skin: Wash with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes and wash before wearing. Seek medical attention.
Inhaled: Remove to fresh air and monitor breathing. Give oxygen. If breathing becomes difficult or signs of toxicity exist, consult physician. If breathing stops, give artificial respiration and seek medical attention.
First Aid Facilities: Eyebath/eyewash & Safety shower.
Medical Attention & Special Treatment: Not available.
ADDITIONAL INFORMATION:

SECTION 5 - FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Dry Chemical, Foam or Carbon Dioxide.

Hazards from Combustion Products:

Will form toxic materials – carbon dioxide and carbon monoxide.

Precautions for Fire Fighters:

Wear self-contained breathing apparatus and full protective clothing to prevent contact with skin and eyes. Water spray may be ineffective as extinguishing agent but can be used to keep fire-exposed containers cool. Vapor is heavier than air and may travel a considerable distance to source of ignition. Heat can cause polymerization.

Heated, sealed containers can explode.

Hazchem Code: Not available.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Emergency Procedures:

Evacuate area and ventilate.

Containment and clean up:

Evacuate area and ventilate. Wear safety equipment as described below. Avoid direct contact. Remove all ignition sources. Ventilate area of spill or leak. For small quantities, absorb on paper towels and evaporate in fume hood. Do not allow large spills to enter sewer or any other confined area because of explosion hazard. Absorb onto inert material (sand, vermiculite, etc.) and pick up, keep in a closed container and hold for waste disposal outdoors. Keep spills and cleaning runoffs out of municipal sewers. Contaminated monomer may be unstable; add extra inhibitor to prevent polymerization.

SECTION 7 - HANDLING & STORAGE

Precautions for Safe Handling:

Wear appropriate protective equipment while handling. Avoid prolonged or repeated exposure. Lab should be equipped with a safety shower and an eye wash station. Wash thoroughly after handling material. Keep away from heat and open flames. Material should only be handled by qualified, experienced professionals.

Conditions for Safe Storage:

Store in a tightly closed container in dry, cool area out of direct sunlight. Avoid contact with material. Limit indoor storage of flammable liquids to approved areas equipped with automatic sprinklers. Leave air space over liquid surface in all containers. Ground all containers when transferring material. It is advisable to use material within 6 months. Monitor inhibitor level during storage. Material stored in bulk should be tested for stability every month; drums and pails every 3 months.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards: TWA 50ppm, TWA 208mg/m³, STEL 100ppm, STEL 416mg/m³.

Biological Limit Values: No biological limit allocated.

Engineering Controls:

Adequate ventilation required mechanical is preferred.

Personal Protective Equipment:

Use NIOSH/MSHA approved respirator (SCBA), wear safety goggles or glasses, butyl rubber gloves, and lab coat or suitable clothing to stop contact with skin. For large spills use of a chemical suit is preferred, for small spills use a lab coat or adequate clothing to prevent skin contact.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Clear colourless mobile liquid.
Odour:	Acrid fruity odour.
pH:	Not available.
Vapour pressure (mm of Hg at 25°C):	29mm of Hg at 20°C.
Vapour density:	Air-1: 3.6
Boiling point/range (°C):	BP at 760mm of Hg: 100-101°C.
Freezing/melting point (°C):	MP: -43°C.
Solubility:	Moderately soluble in water.
Specific gravity or density:	Gravity at 20°C: 0.9440
Flash Point:	10°C.
Flammable (explosive) limits:	Explosion - LEL - 2.12% UEL - 12.5% In air - LFL - 1.7% UFL - 8.2%
Ignition temperature:	Not available.
Additional Information:	

SECTION 10 - STABILITY AND REACTIVITY

Chemical stability:	Stable under normal conditions of use.
Conditions to avoid:	Avoid heat, aging, contamination, oxygen-free atmosphere and incompatible materials.
Incompatible Materials:	Avoid contact with other oxidizing or reducing agents, acids and bases, UV light and contamination.
Hazardous Decomposition Products:	Will form toxic materials – carbon dioxide and carbon monoxide.
Hazardous Reactions:	May occur. Avoid heat, oxygen-free atmosphere and UV light.

SECTION 11 - TOXICOLOGICAL INFORMATION**Exposure and Health Effects:****Ingestion:**

Effects unknown.

Inhalation:

Irritant. Vapor or mist can irritate the nose and throat. Prolonged exposure will affect the nervous system.

Skin Contact:

Moderately irritating.

Eye Contact:

Moderately Irritating.

Human/Animal data: TOXICOLOGY: ACUTE TOXICITY

orl-rat: LD50 7872 mg/kg

inp-rat: LD50 1328 mg/kg

sub-rat: LD50 7500 mg/kg

orl-mou: LD50 5204 mg/kg

inh-mou: LD50 18500 mg/m³/2H

inp-mou: LD50 1 g/kg - INMEAF

sub-mou: LD50 6300 mg/kg - INHEAF

IRRITATION:

skn-rab: Draize 10gm/kg - open Not reported

eye-rab: Draize 150mg - Not reported

Carcinogenicity: Not available.**SECTION 12 – ECOLOGICAL INFORMATION**

Ecotoxicity:	Not available.
Persistence and degradability:	Not available.
Mobility:	Not available.
Additional Information:	Not available.

SECTION 13 - DISPOSAL CONSIDERATIONS**Disposal Methods:**

Burn in a chemical incinerator equipped with an afterburner and scrubber. Note: Observe all Federal, State, and Local Laws.

Special Precautions:**SECTION 14 - TRANSPORT INFORMATION**

UN Number:	UN1247
UN Proper Shipping Name:	Flammable Liquid, Methyl methacrylate monomer, stabilized.
Class and Subsidiary risk:	3
Packing Group:	II
Special Precautions for User:	Not available.
Hazchem Code:	Not available.

SECTION 15 - REGULATORY INFORMATION**Poison Schedule Number:** None allocated.

SECTION 16 - OTHER INFORMATION

Date of preparation of MSDS: November 09

Comments:

The information published in this Material Safety Data Sheet has been compiled from data in various technical publications. It is the user's responsibility to determine the suitability of this information for adoption of necessary safety precautions. We reserve the right to revise material Safety Data Sheets as new information becomes available. Copies may be made for non-profit use.