

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SUPPLIER: METPREP LTD.
CURRIERS CLOSE
CHARTER AVENUE
COVENTRY CV4 8AW

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CHEMICAL NAME: ISOBUTYL METHACRYLATE

PRODUCT: ACRI-KLEER LIQUID

PRODUCT NUMBERS: 11 10 47

2. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NATURE:
Isobutyl Methacrylate: CAS Number – 97-86-9 EINECS – 202-613-0

INGREDIENT (S):	CAS NUMBER:	%:	HAZARD SYMBOL:	R PHRASES:
Isobutyl Methacrylate	97-86-9	< 90	F, Xi	10;36/37/38;43
Trimethylolpropane Trimethacrylate	3290-92-4	< 20	N/A	N/A

3. HAZARDS IDENTIFICATION

Combustible. Hazardous polymerization may occur.
Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact. High atmospheric concentrations may lead to internal irritation, nausea, vomiting, diarrhea and may lead to drowsiness and unconsciousness. Repeated and or prolonged contact may cause dermatitis

4. FIRST AID MEASURES

INHALATION: Remove patient from exposure, keep warm and at rest. Obtain immediate attention.

SKIN: Remove contaminated clothing. Wash skin immediately with water. If symptoms (irritation or blistering) occur obtain medical attention.

EYE: Irrigate with eyewash solution or clear water, holding the eyelids apart, for at least 15 minutes. Obtain immediate medical attention.

INGESTION: Do not induce vomiting. Wash out mouth with water and give 200-300 ml (half a pint) of water to drink.

Obtain medical attention. Never give anything by mouth to an unconscious person. Call a physician.

5. FIRE FIGHTING MEASURES

Flammable. Vapors or gases may travel considerable distance to ignition source and flash back.

FIRE & EXPLOSION HAZARDS: Fine mists or sprays may be flammable at temperatures below the flash point. May polymerize on heating. Sealed containers may rupture explosively if hot.

EXTINGUISHING MEDIA: Water spray, foam, dry powder or CO₂. Keep fire exposed containers cool by spraying with water.

FIRE FIGHTING PROTECTIVE EQUIPMENT: A self-contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

MATERIAL SAFETY DATA SHEET

6. ACCIDENTAL RELEASE MEASURES

Eliminate sources of ignition. Ensure suitable personal protection (including respiratory protection) during removal of spillages. Prevent entry into drains. Adsorb spillages onto sand, earth or any suitable adsorbent material. Do not adsorb onto sawdust or other combustible materials. Transfer to a container for disposal or recovery. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

7. HANDLING AND STORAGE

PRECAUTIONS FOR HANDLING: Observe precautions found on the label. Close container after each use. Ground all metal containers when transferring. Use explosion-proof equipment.

HANDLING: Avoid contact with skin and eyes.
Avoid inhalation of high concentration of vapors. Use only in well ventilated areas.
The vapor is heavier than air; beware of pits and confined spaces. Take precautionary measures against static discharges.

STORAGE: Keep only in original container. Store in cool, dry place away from heat, sparks, flame and direct sunlight.
Keep container closed to prevent water absorption and contamination. Keep away from sources of ignition – No Smoking.

IMPORTANT: Methacrylate stored in bulk must be kept in contact with air (oxygen).

STORAGE TEMPERATURE: Preferably not exceeding 25 °C.

INDUSTRIAL HYGIENE PRACTICES: Wash face and hands thoroughly with the soap and water after use and before eating,
drinking, smoking or applying cosmetics.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Considerations should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

The following information is given as general guidance.

RESPIRATORS: Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely. A suitable mask with filter type A may be appropriate. In the event of formation of particularly high levels of vapor a self-contained breathing apparatus may be appropriate.

EYE PROTECTION: Safety glasses or chemical splash goggles.

GLOVES: Wear suitable gloves. PVA/Polyethylene laminate and supported PVA gloves offer the best protection. Gloves should be changed regularly and if excessive exposure has occurred.

OTHER: Wear suitable protective clothing.

OCCUPATIONAL EXPOSURE LIMITS:

HAZARDOUS INGREDIENT (S):	PEL (OSHA) :	TLV (ACGIH) :	COMPANY
RECOMMENDATION:			

MATERIAL SAFETY DATA SHEET

TWA	Isobutyl Methacrylate	N/E	N/E	50 ppm, 205 mg/ m ³ , 8 Hr.
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9. PHYSICAL AND CHEMICAL PROPERTIES

EVAPORATION RATE: 0.50 (BuAc=1)	VAPOR DENSITY: 4.91 at 15.5 °C	SOLUBILITY IN H ₂ O: 0.1 gm/100 gm
VAPOR PRESSURE: 3 mm/Hg at 20 °C mm Hg	PERCENT VOLATILE 100.0	APPROX. BOIL RANGE: 155 °C (311 °F) at 760
SPECIFIC GRAVITY: 0.891 gr / cc	ODOR: Fruity	DENSITY: 0.891 g/cc
FLASH POINT (METHOD): TEMPERATURE: 49 C (120.2 F) (TCC)	APPROX. FLAMMABLE LIMITS: not known	AUTOIGNITION 367 °C

10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Heat and ignition sources; contamination.

INCOMPATIBILITY (MATERIALS TO AVOID): Reducing and oxidizing agents. Material has strong solvent properties and can soften paint or rubber.

HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO₂, smoke

HAZARDOUS POLYMERIZATION: Can occur.

CONDITIONS TO AVOID FOR HAZARDOUS POLYMERIZATION: Excessive heat, storage in absence of inhibitor; inadvertent addition of catalyst.

11. TOXICOLOGICAL INFORMATION

Isobutyl methacrylate is irritating to the skin and eyes and is a skin sensitizer in animals.

INHALATION: May cause eye, nose and respiratory irritation. May cause nervous system depression characterized by the following progressive steps: headache, dizziness, nausea, staggering gait, confusion, and unconsciousness.

OTHER POTENTIAL HAZARDS: Inhalation and feeding studies on laboratory animals at high doses have shown nonspecific effects such as irritation and moderate blood changes. Very high airborne levels may cause lung damage.

SKIN OR EYE CONTACT: Vapor may cause irritation of the eyes; liquid may cause moderate irritation. Repeated or prolonged liquid contact may cause allergic skin rash, itching and swelling.

Humans:

Human health effects of overexposure by skin contact may initially include skin irritation with discomfort or rash; or possibly allergic skin rashes. The compound has been infrequently associated with skin sensitization in humans. Significant skin permeation, and systemic toxicity, after contact appears unlikely. Eye contact may initially include eye irritation with discomfort, tearing, or blurring of vision. Inhalation may initially include irritation of the upper respiratory passages, with coughing; or nonspecific discomfort, such as nausea, headache, or weakness.

12. ECOLOGICAL INFORMATION

MATERIAL SAFETY DATA SHEET

ENVIRONMENTAL FATE AND DISTRIBUTION: High tonnage material produced in wholly contained systems. Liquid with high volatility. Sparingly soluble in water. Predicted to have moderate potential for bioaccumulation. Predicted to have moderate mobility in soil.

PERSISTENCE AND DEGRADATION: Partially biodegradable in water.

TOXICITY: The compound is slightly toxic. The 72 hr LC50 in goldfish is 124 mg/L

EFFECTS ON EFFLUENT TREATMENT: The product is substantially removed in biological treatment processes.

13. DISPOSAL CONSIDERATIONS

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface or sanitary sewer system. Incinerate in a facility, which complies with Federal, State and local requirements. Do not incinerate in closed containers.

14. TRANSPORTATION

DOT / UN SHIPPING NAME:	Isobutyl Methacrylate, Stabilized
NA/UN NUMBER:	UN 2283
DOT/UN CLASS:	3
PACKING GROUP:	III
LABEL:	FLAMMABLE LIQUID
AIR TRANSPORT –	
IATA CLASS:	3
OCEAN TRANSPORT –	
IMDG CLASS:	3.2

Domestic containers of less than 450 L capacity are not regulated by DOT.

15. REGULATORY INFORMATION

EC REGULATIONS –

EINECS: all chemical listed

EEC Classification: FLAMMABLE AND IRRITANT
Symbol: Indication of Danger



F Highly Flammable



Xi Irritant

Risk Phrases: R10 Flammable
R36/37/38. Irritating to eyes, respiratory system and skin.
R43. May cause sensitization by skin contact.

Safety Phrases: S24. Avoid contact with skin.
S37. Wear suitable gloves.
S9. Keep container in well-ventilated place.
S16. Keep away from sources of ignition - No smoking.

CANADIAN REGULATIONS –

DSL: Included

WHMIS: B3. Combustible Liquid
D2B. Toxic Material Skin or eye irritant
F. Dangerously reactive material

MATERIAL SAFETY DATA SHEET**16. ADDITIONAL INFORMATION**

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS) RATING:

HEALTH = 2

FLAMMABILITY = 2

REACTIVITY = 2

This data sheet was prepared in accordance with Directive 91/155/EEC.

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