





# Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
  	<b>Flammable material; avoid heat and sources of ignition.</b> <b>Corrosive to eyes and skin on contact.</b> <b>Harmful compound, minimize exposure.</b> <b>Moisture sensitive material.</b>	

## Section I. Chemical Product and Company Identification

Chemical Name	<b>Acrylic Acid Isobutyl Ester</b> (stabilized with MEHQ)		
Catalog Number	A0747	Supplier	TCI America 9211 N. Harborgate St. Portland OR 1-800-423-8616
Synonym	Isobutyl Acrylate		
Chemical Formula	CH <sub>2</sub> :CHCOOCH <sub>2</sub> CH(CH <sub>3</sub> ) <sub>2</sub>		
CAS Number	106-63-8		
		In case of Emergency Call	<b>Chemtrec®</b> <b>(800) 424-9300 (U.S.)</b> <b>(703) 527-3887 (International)</b>

## Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
Acrylic Acid Isobutyl Ester <small>(stabilized with MEHQ)</small>	106-63-8	Min. 99.0 (GC)	Not available.	Rat LD <sub>50</sub> (oral) 7070 µL/kg Rat LC <sub>50</sub> (inhalation) 2000 ppm/4H Mouse LD <sub>50</sub> (intraperitoneal) 760 mg/kg

## Section III. Hazards Identification

Acute Health Effects	Corrosive to skin, eyes, and respiratory system. Liquid or spray mist may produce tissue damage, particularly in mucous membranes of the eyes, mouth and respiratory tract. Skin contact may produce burns. Eye contact can result in corneal damage or blindness. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Corrosive materials may cause serious injury if ingested. Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.
Chronic Health Effects	<b>CARCINOGENIC EFFECTS</b> : Not available. <b>MUTAGENIC EFFECTS</b> : Not available. <b>TERATOGENIC EFFECTS</b> : Not available. <b>DEVELOPMENTAL TOXICITY</b> Not available. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

## Section IV. First Aid Measures

Eye Contact	Check for and remove any contact lenses. DO NOT use an eye ointment. Flush eyes with running water for a minimum of 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention. Treat symptomatically and supportively.
Skin Contact	If the chemical gets spilled on a clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical touches the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Seek medical attention. Treat symptomatically and supportively. Wash any contaminated clothing before reusing.
Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform artificial respiration. WARNING: It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention and, if possible, show the chemical label. Treat symptomatically and supportively.
Ingestion	DO NOT induce vomiting. Loosen tight clothing such as a collar, tie, belt, or waistband. If the victim is not breathing, administer artificial respiration. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Seek immediate medical attention and, if possible, show the chemical label. Treat symptomatically and supportively.

**Section V. Fire and Explosion Data**

Flammability	Flammable.	Auto-Ignition	427°C (800.6°F)
Flash Points	32°C (89.6°F).	Flammable Limits	LOWER: 1.9% UPPER: 8%
Combustion Products	These products are toxic carbon oxides (CO, CO <sub>2</sub> ).		
Fire Hazards	Highly flammable in presence of open flames and sparks, of heat.		
Explosion Hazards	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. No additional information is available regarding the risks of explosion.		
Fire Fighting Media and Instructions	Flammable liquid. SMALL FIRE: Use DRY chemicals, CO <sub>2</sub> , alcohol foam or water spray. LARGE FIRE: Use alcohol foam, water spray or fog.		


**Section VI. Accidental Release Measures**

Spill Cleanup Instructions	Flammable liquid. Corrosive liquid. Harmful material. Moisture sensitive material. Keep away from heat and sources of ignition. Mechanical exhaust required. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. DO NOT get water inside container. DO NOT touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all sources of ignition. Consult federal, state, and/or local authorities for assistance on disposal.
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**Section VII. Handling and Storage**

Handling and Storage Information	FLAMMABLE. CORROSIVE. HARMFUL. MOISTURE SENSITIVE. Handle with caution and minimize exposure. Keep container dry. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Treat symptomatically and supportively. Avoid contact with skin and eyes. Always store away from incompatible compounds such as oxidizing agents.
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**Section VIII. Exposure Controls/Personal Protection**

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash station and safety shower is proximal to the work-station location.
Personal Protection	Face shield. Lab coat. Vapor respirator. Boots. Gloves. A MSHA/NIOSH approved respirator must be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
	
Exposure Limits	Not available.

**Section IX. Physical and Chemical Properties**

Physical state @ 20°C	Clear liquid.	Solubility	Soluble in methanol, alcohol, and ether.
Specific Gravity	0.8896		
Molecular Weight	128.17	Partition Coefficient	log Kow = 2.22
Boiling Point	132°C (269.6°F)	Vapor Pressure	10.7 mm Hg @ 20°C
Melting Point	Not available.	Vapor Density	4.42
Refractive Index	1.4150 @ 20°C	Volatility	Not available.
Critical Temperature	315°C (599°F)	Odor	Sharp, fragrant odor.
Viscosity	0.822 cP	Taste	Not available.

**Section X. Stability and Reactivity Data**

Stability	This material is stable if stored under proper conditions. (See Section VII for instructions)
Conditions of Instability	Avoid excessive heat and light.
Incompatibilities	Reactive with strong oxidizing agents, electrophilic, free radical, and nucleophilic agents, aldehydes, ether, azides, and moisture.

**Section XI. Toxicological Information**

RTECS Number	AT2100000
Routes of Exposure	Eye contact. Ingestion. Inhalation. Skin contact.
Toxicity Data	Rat LD <sub>50</sub> (oral) 7070 µL/kg Rat LC <sub>50</sub> (inhalation) 2000 ppm/4H Mouse LD <sub>50</sub> (intraperitoneal) 760 mg/kg
Chronic Toxic Effects	<b>CARCINOGENIC EFFECTS</b> : Not available. <b>MUTAGENIC EFFECTS</b> : Not available. <b>TERATOGENIC EFFECTS</b> : Not available. <b>DEVELOPMENTAL TOXICITY</b> Not available. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.
Acute Toxic Effects	Corrosive to skin, eyes, and respiratory system. Liquid or spray mist may produce tissue damage, particularly in mucous membranes of the eyes, mouth and respiratory tract. Skin contact may produce burns. Eye contact can result in corneal damage or blindness. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Corrosive materials may cause serious injury if ingested. Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.


**Section XII. Ecological Information**

Ecotoxicity	Not available.
Environmental Fate	Isobutyl acrylate may be released into the environment in fugitive and stack emissions or in wastewater during its production and use in the manufacture of acrylate resins. Small amounts of certain monomers have been found in some polymerized products which could lead to the leaching and volatilization of monomers such as isobutyl acrylate from the polymers. If isobutyl acrylate is released to soil, it will be expected to exhibit a very high mobility in soil and, therefore, it may leach to groundwater. It may hydrolyze, especially in alkaline soils based upon hydrolysis data for the structurally similar ethyl acrylate. It may biodegrade in soil based upon the biodegradability of butyl acrylate in aqueous screening tests. It may volatilize from near surface soil and other surfaces. If isobutyl acrylate is released to water, it will not be expected to directly photolyze, adsorb to sediment or suspended particulate matter or to bioconcentrate in aquatic organisms. Hydrolysis of isobutyl acrylate may be a significant process especially in alkaline waters based upon hydrolysis data for the structurally similar ethyl acrylate. Isobutyl acrylate may biodegrade in natural waters based upon the biodegradability of butyl acrylate in screening tests. It will significantly volatilize from water with an estimated half-life of 4.2 hr for volatilization from a model river. The volatilization half-life from a model pond, which considers the effect of adsorption, has been estimated to be 4.5 days. If isobutyl acrylate is released to the atmosphere, it will be expected to exist almost entirely in the vapor phase based upon a reported vapor pressure of 10.7 mm Hg at 20°C. It should not directly photolyze. It will be susceptible to photooxidation via vapor phase reaction with photochemically produced hydroxyl radicals and ozone. An atmospheric half-life of 12.5 hours at an atmospheric concentration of 5X10+5 hydroxyl radicals per cu cm and 7X10+11 ozone molecules per cu cm has been estimated for this process. The most probable route of human exposure to isobutyl acrylate is by inhalation of contaminated air especially at workplace where isobutyl acrylate is manufactured and used. Inhalation exposure to isobutyl acrylate containing vapors and dermal exposure to isobutyl acrylate containing liquids also may occur at the workplace.

**Section XIII. Disposal Considerations**

Waste Disposal	Recycle to process, if possible. Consult your local or regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state, and local regulations when disposing of this substance.
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**Section XIV. Transport Information**

DOT Classification	DOT CLASS 3: Flammable liquid.
PIN Number	UN2527
Proper Shipping Name	Isobutyl acrylate, stabilized.
Packing Group (PG)	III
DOT Pictograms	

**Section XV. Other Regulatory Information and Pictograms**

TSCA Chemical Inventory (EPA)	This product is <b>ON</b> the EPA Toxic Substances Control Act (TSCA) inventory.
WHMIS Classification (Canada)	WHMIS CLASS B-2: Flammable liquid with a flash point lower than 35°C (100°F).
EINECS Number (EEC)	203-417-8
EEC Risk Statements	R12- Extremely flammable. R18- In use, may form flammable/explosive vapor-air mixture. R34- Causes burns. R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
Japanese Regulatory Data	Not available.

**Section XVI. Other Information**

**Version 1.0**  
**Validated on 10/13/1998.**  
**Printed 1/11/2005.**

**Notice to Reader**

TCI laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, household, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our MSDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated MSDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.