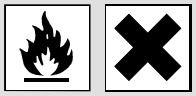
TCI AMERICA

Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
	**Combustible material; avoid heat and sources of ignition.** **Harmful compound, minimize exposure.** **Irritating to skin, eyes, and the respiratory system.** **Lachrymator.** **This compound is a skin sensitizer.** **Risk of serious damage to eyes.** **Heat and light sensitive.**	

Section I. Chemical Product and Company Identification

Chemical Name: **Acrylic Acid n-Butyl Ester**
(stabilized with MEHQ)

Catalog Number	A0142
Synonym	2-Propenoic Acid Butyl Ester
Chemical Formula	CH_2:$CHCOOC_4H_9$
CAS Number	141-32-2

Supplier: TCI America
9211 N. Harborgate St.
Portland OR
1-800-423-8616

In case of Emergency Call: **Chemtrec®**
(800) 424-9300 (U.S.)
(703) 527-3887 (International)

Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
Acrylic Acid n-Butyl Ester (stabilized with MEHQ)	141-32-2	Min. 99.0 (GC)	ACGIH TLV TWA: 2ppm	Rat LD_{50} (oral) 900mg/kg Rat LC_{50} (inhalation) 2730ppm/4H Rabbit LD_{50} (dermal) 2ml/kg

Section III. Hazards Identification

Acute Health Effects

Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
Skin contact may result in sensitization. Always cover all exposed skin with an impermeable layer and use proper eye protection. A OSHA/MSHA approved dust and vapor respirator is required when working with this material.
Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Chronic Health Effects

CARCINOGENIC EFFECTS : Not available.
MUTAGENIC EFFECTS : Not available.
TERATOGENIC EFFECTS : Not available.
DEVELOPMENTAL TOXICITY : REPRODUCTIVE EFFECTS:
Rat TCLo (inhalation) 135ppm/6 Hours, female, 6-15 Days of pregnancy.
Toxic Effects:
Effects on Fertility- Post-implantation mortality.
Rat TCLo (inhalation) 200ppm/6 Hours, female, 6-20 Days of pregnancy.
Toxic Effects:
Effects on Embryo or Fetus- Fetotoxicity.
Rat TCLo (inhalation) 200ppm, female, 6-20 Days of pregnancy.
Toxic Effects:
Effects on Embryo or Fetus- Fetotoxicity.
Maternal Effects- Other effects.
Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.

Section IV. First Aid Measures

Eye Contact

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact

In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Inhalation

If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve.

Ingestion

INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. 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.

Continued on Next Page **Emergency phone number (800) 424-9300**

Section V. Fire and Explosion Data

Flammability	Combustible.	Auto-Ignition	293°C (559.4°F)
Flash Points	36°C (96.8°F). (C.C.)	Flammable Limits	LOWER: 1.3% UPPER: 9.9%
Combustion Products	These products are toxic carbon oxides (CO, CO_2).		
Fire Hazards	Not available.		
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.		
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion. Consult with local fire authorities before attempting large scale fire-fighting operations.		

Section VI. Accidental Release Measures

Spill Cleanup Instructions	Combustible liquid. Harmful material. Irritating material. Lachrymatory material. Sensitizing material. Risk of serious damage to eyes. Heat and light sensitive. Keep away from heat. Mechanical exhaust required. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. DO NOT touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Consult federal, state, and/or local authorities for assistance on disposal.

Section VII. Handling and Storage

Handling and Storage Information	COMBUSTIBLE. HARMFUL. IRRITANT. LACHRYMATOR. SENSITIZER. RISK OF SERIOUS DAMAGE TO EYES. HEAT AND LIGHT SENSITIVE. Keep locked up. Keep away from heat. Mechanical exhaust required. Keep away from direct sunlight or strong incandescent light. Avoid excessive heat and light. DO NOT ingest. Do not breathe gas/fumes/ vapor/spray. Avoid shock and friction. If ingested, seek medical advice immediately and show the container or the label. Treat symptomatically and supportively. Always store away from incompatible compounds such as oxidizing agents, acids, alkalis (bases).

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	Splash goggles. Lab coat. Vapor respirator. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. Be sure to use a MSHA/NIOSH approved respirator or equivalent. 
Exposure Limits	ACGIH TLV TWA: 2ppm

Section IX. Physical and Chemical Properties

Physical state @ 20°C	Liquid. (Clear, colorless.)	Solubility	Solubility in water @ 20°C: 0.14g/100ml; @ 40°C: 0.12g/100ml. Solubility of water in n-Butyl acrylate @ 20°C: 0.8ml/100g.
Specific Gravity	0.90 (water=1)		
Molecular Weight	128.17	Partition Coefficient	Log K_{ow}= 2.36
Boiling Point	145 to 146°C (293 to 294.8°F)	Vapor Pressure	0.4 kPa (@ 20°C)
Melting Point	Freezing Point: -64°C (-83.2°F)	Vapor Density	4.42 (Air = 1)
Refractive Index	1.4185	Volatility	Not available.
Critical Temperature	Not available.	Odor	Strong, fruity odor.
Viscosity	0.75Pas @ 20°C.	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, strong acids, strong alkalis (bases). The product may undergo dangerous decomposition, condensation or polymerization, it may react violently with water to emit toxic gases or it may become self-reactive under conditions of shock or increase in temperature or pressure.

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Section XI. Toxicological Information

RTECS Number	UD3150000
Routes of Exposure	Eye Contact. Ingestion. Inhalation.
Toxicity Data	Rat LD_{50} (oral) 900mg/kg Rat LC_{50} (inhalation) 2730ppm/4H Rabbit LD_{50} (dermal) 2ml/kg
Chronic Toxic Effects	**CARCINOGENIC EFFECTS** : Not available. **MUTAGENIC EFFECTS** : Not available. **TERATOGENIC EFFECTS** : Not available. **DEVELOPMENTAL TOXICITY**: REPRODUCTIVE EFFECTS: Rat TCLo (inhalation) 135ppm/6 Hours, female, 6-15 Days of pregnancy. Toxic Effects: Effects on Fertility- Post-implantation mortality. Rat TCLo (inhalation) 200ppm/6 Hours, female, 6-20 Days of pregnancy. Toxic Effects: Effects on Embryo or Fetus- Fetotoxicity. Rat TCLo (inhalation) 200ppm, female, 6-20 Days of pregnancy. Toxic Effects: Effects on Embryo or Fetus- Fetotoxicity. Maternal Effects- Other effects. Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.
Acute Toxic Effects	Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Skin contact may result in sensitization. Always cover all exposed skin with an impermeable layer and use proper eye protection. A OSHA/MSHA approved dust and vapor respirator is required when working with this material. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Section XII. Ecological Information

Ecotoxicity	Not available.
Environmental Fate	Butyl acrylate's production and use as a polymer and copolymer for solvent coatings, adhesives, paints, binders and emulsifiers may result in its release to the environment through various waste streams. If released to air, a vapor pressure of 5.45 mm Hg at 25 deg C indicates butyl acrylate will exist solely as a vapor in the ambient atmosphere. Vapor-phase butyl acrylate will be degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 1.2 days. Because the structurally similar compound ethyl acrylate does not absorb light in the environmental UV spectrum (>290 nm), butyl acrylate is not expected to directly photolyze. If released to soil, butyl acrylate is expected to have high mobility based upon a Koc of 88. Volatilization from moist soil surfaces is expected to be an important fate process based upon an estimated Henry's Law constant of 6.6X10-4 atm-cu m/mole. Butyl acrylate may volatilize from dry soil surfaces based upon its vapor. If released into water, butyl acrylate is not expected to adsorb to suspended solids and sediment in the water column based upon the estimated Koc. Butyl acrylate may be susceptible to biodegradation; in screening tests it reached 61% of its theoretical BOD in 2 weeks using an activated sludge inoculum. Volatilization from water surfaces is expected to be an important fate process based upon this compound's estimated Henry's Law constant. Estimated volatilization half-lives for a model river and model lake are 5 hours and 5 days, respectively. An estimated BCF of 37 suggests the potential for bioconcentration in aquatic organisms is moderate. Hydrolysis of butyl acrylate may be a significant process based upon a hydrolytic half-life of 4 hours at pH 11; half-lives at pH 7,8 and 9 were 4 years, 150 days and 15 days, respectively. Occupational exposure to butyl acrylate may occur through inhalation and/or dermal contact with this compound at workplaces where butyl acrylate is produced or used. The general population may be exposed to butyl acrylate via inhalation or dermal contact with furniture surface coatings, as well as inhalation of ambient air near butyl acrylate manufacturing facilities. (HSDB)

Section XIII. Disposal Considerations

Waste Disposal	Recycle to process, if possible. Consult your local 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 the substance.

Section XIV. Transport Information

DOT Classification	CLASS 3: Flammable liquid.
PIN Number	UN2348
Proper Shipping Name	Butyl acrylates, stabilized
Packing Group (PG)	III
DOT Pictograms	

Continued on Next Page Emergency phone number (800) 424-9300

Section XV. Other Regulatory Information and Pictograms

TSCA Chemical Inventory (EPA)	This compound is **ON** the EPA Toxic Substances Control Act (TSCA) inventory list. This product is subject to SARA Section 313 reporting requirements.
WHMIS Classification (Canada)	CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F). CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2B: Material causing other toxic effects (TOXIC). CLASS F: Dangerously reactive material. On DSL.
EINECS Number (EEC)	205-480-7
EEC Risk Statements	R10- Flammable. R20/21/22- Harmful by inhalation, in contact with skin and if swallowed. R36/37/38- Irritating to eyes, respiratory system and skin. R41- Risk of serious damage to eyes. R43- May cause sensitization by skin contact.
Japanese Regulatory Data	ENCS No. 2-989, 6-2010

Section XVI. Other Information

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