TCI AMERICA

Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
	**Corrosive to eyes and skin on contact.** **Toxic compound, do not ingest or inhale. Avoid all contact with this material. This compound is a skin sensitizer.** **Light sensitive.** **Refrigerate and vent pressure slowly before opening.**	

Section I. Chemical Product and Company Identification

Chemical Name: **Acrylic Acid 2-Hydroxyethyl Ester**
(stabilized with MEHQ)

Catalog Number	A0743
Synonym	Ethylene Glycol Monoacrylate
Chemical Formula	CH_2:$CHCOOCH_2CH_2OH$
CAS Number	818-61-1

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 2-Hydroxyethyl Ester (stabilized with MEHQ)	818-61-1	Min. 96.0% (GC)	Not available.	Rat LD_{50} (oral) 650mg/kg Rabbit LD_{50} (dermal) 1010mg/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. 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.
Toxicity to the reproductive system: Not available. 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. IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. COLD water may be used. 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. COLD water may be used. Cover the irritated skin with an emollient. Seek medical attention. Treat symptomatically and supportively. Wash any contaminated clothing before reusing.

Inhalation

If the victim is not breathing, perform artificial respiration. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention. 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, perform mouth-to-mouth resuscitation. Have conscious person drink several glasses of water or milk. Seek medical attention.NEVER give an unconscious person anything to ingest. Seek medical attention. Treat symptomatically and supportively.

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Section V. Fire and Explosion Data

Flammability	Combustible.	Auto-Ignition	Not available.
Flash Points	Closed cup: 68°C (154.4°F) Open cup: 220°C (428°F)	Flammable Limits	Not available.
Combustion Products	These products are toxic carbon oxides (CO, CO_2).		
Fire Hazards	No specific information is available regarding the flammability of this compound in the presence of various materials.		
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	SMALL FIRE: Use DRY chemicals, CO_2, water spray or foam. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.		

Section VI. Accidental Release Measures

Spill Cleanup Instructions	Corrosive liquid. Harmful liquid. Keep away from heat and sources of ignition. Mechanical exhaust required. Stop leak if without risk. DO NOT get water inside container. DO NOT touch spilled material. Use water spray to reduce vapors. 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.

Section VII. Handling and Storage

Handling and Storage Information	CORROSIVE. HARMFUL. SENSITIZER. Protect from light and refrigerate. Handle with caution and minimize exposure. Keep away from heat and sources of ignition. Mechanical exhaust required. When not in use, tightly seal the container and store in a dry, cool place. Avoid excessive heat and light. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. 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, acids, and 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	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	Colorless liquid.	Solubility	Soluble in cold water, hot water.
Specific Gravity	1.11		
Molecular Weight	116.12	Partition Coefficient	Not available.
Boiling Point	91°C @ 12mm Hg	Vapor Pressure	<0.1mm Hg @ 20°C
Melting Point	Not available.	Vapor Density	>1.0
Refractive Index	Not available.	Volatility	Not available.
Critical Temperature	Not available.	Odor	Not available.
Viscosity	Not available.	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	Light sensitive. Refrigerate and vent pressure slowly.
Incompatibilities	Reactive with strong oxidizing agents, acids, and bases.

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

Section XI. Toxicological Information

RTECS Number	AT1750000
Routes of Exposure	Eye contact. Ingestion. Inhalation. Skin contact.
Toxicity Data	Rat LD_{50} (oral) 650mg/kg Rabbit LD_{50} (dermal) 1010mg/kg No additional remark.
Chronic Toxic Effects	**CARCINOGENIC EFFECTS** : Not available. **MUTAGENIC EFFECTS** : Not available. **TERATOGENIC EFFECTS** : Not available. Toxicity to the reproductive system: Not available. 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. 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	2-Hydroxyethyl acrylate may be released into the environment in fugitive and stack emissions or in wastewater during its production and use in the manufacture of thermosetting acrylic 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 2-hydroxyethyl acrylate from the polymers. If 2-hydroxyethyl 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 its biodegradability in aqueous screening tests. If 2-hydroxyethyl acrylate is released to water, it will not be expected to volatilize, adsorb to sediment or suspended particulate matter or to bioconcentrate in aquatic organisms. Hydrolysis of 2-hydroxyethyl acrylate may be a significant process especially in alkaline waters based upon hydrolysis data for the structurally similar ethyl acrylate. 2-Hydroxyethyl acrylate should biodegrade in natural waters based upon the biodegradability in aqueous screening tests. It may directly photolyze in sunlight based upon the slight absorption of light at wavelenghts >290 nm by ethyl acrylate and other acrylate esters. If 2-hydroxyethyl acrylate is released to the atmosphere, it will be expected to exist almost entirely in the vapor phase. It will be susceptible to photooxidation via vapor phase reaction with photochemically produced hydroxyl radicals and ozone. An atmospheric half-life of 10.0 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 2-hydroxylethyl acrylate is by inhalation of contaminated air especially at workplaces where it is manufactured and used. Dermal exposure to 2-hydroxylethyl acrylate containing vapors or liquids also may occur at the workplace. (Excerpted HSDB)

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.

Section XIV. Transport Information

DOT Classification	DOT CLASS 8: Corrosive liquid. DOT CLASS 6.1: Toxic liquid.
PIN Number	UN2922
Proper Shipping Name	Corrosive liquids, toxic, n.o.s.
Packing Group (PG)	II
DOT Pictograms	

Section XV. Other Regulatory Information and Pictograms

TSCA Chemical Inventory (EPA	This product is **ON** the EPA Toxic Substances Control Act (TSCA) inventory.
WHMIS Classification (Canada)	WHMIS CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F). WHMIS CLASS D-2B: Material causing other toxic effects (TOXIC).
EINECS Number (EEC)	212-454-9
EEC Risk Statements	R23/24/25- Toxic by inhalation, in contact with skin and if swallowed. R34- Causes burns.
Japanese Regulatory Data	Not available.

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Section XVI. Other Information

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Notice to Reader

TCI laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, 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.