

HYDROXYPROPYL ACRYLATE

HPA

CAUTIONARY RESPONSE INFORMATION			
Common Synonyms 1,2-Propandiol-1-acrylate Propylene glycol monoacrylate	Liquid	Colorless	Faint unpleasant odor May float or sink in water.
Keep people away. Avoid contact with liquid and vapor. Shut off ignition sources. Call fire department. Notify local health and pollution control agencies. Protect water intakes.			
Fire	Combustible. CONTAINERS MAY EXPLODE IN FIRE Extinguish with dry chemicals, foam, or carbon dioxide. Water may be ineffective. Cool exposed containers with water. COMBAT FIRES FROM SAFE DISTANCE OR PROTECTED LOCATION.		
Exposure	CALL FOR MEDICAL AID. VAPOR Irritating to eyes, nose and throat. If inhaled will cause coughing or difficult breathing. If in eyes, hold eyelids open and flush with plenty of water. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. LIQUID Will burn skin and eyes. If swallowed will cause nausea. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.		
Water Pollution	Effect of low concentrations on aquatic life is unknown. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.		

1. CORRECTIVE RESPONSE ACTIONS	2. CHEMICAL DESIGNATIONS	3. HEALTH HAZARDS
Dilute and disperse Stop discharge	2.1 CG Compatibility Group: Not listed. 2.2 Formula: $\text{CH}_2\text{CHOHCH}_2\text{OCOCH} = \text{CH}_2$ 2.3 IMO/UN Designation: Not listed 2.4 DOT ID No.: Not listed 2.5 CAS Registry No.: Currently not available 2.6 NAERG Guide No.: Not listed 2.7 Standard Industrial Trade Classification: 51379	3.1 Personal Protective Equipment: Rubber gloves, apron, and boots; self-contained breathing apparatus. 3.2 Symptoms Following Exposure: Inhalation irritates nose and throat and causes coughing; lung injury may occur. Ingestion causes irritation and burning of mouth and stomach. Vapor irritates eyes. Contact with liquid causes severe burns of eyes and burns of skin. 3.3 Treatment of Exposure: INHALATION: if ill effects occur, get patient to fresh air, keep him quiet and warm, and get medical attention; if breathing stops, start artificial respiration. INGESTION: force milk or water immediately; induce vomiting only at physician's recommendation. EYES: promptly flush with plenty of water and get medical attention. SKIN: promptly flush with plenty of water; get medical attention if burning occurs. 3.4 TLV-TWA: 0.5 ppm 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: Not listed. 3.7 Toxicity by Ingestion: Grade 2; oral LD ₅₀ = 1,230 mg/kg (rat) 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Currently not available 3.10 Vapor (Gas) Irritant Characteristics: Vapors are moderately irritating such that personnel will not usually tolerate moderate or high concentrations. 3.11 Liquid or Solid Characteristics: Severe skin irritant. Causes second- and third-degree burns on short contact and is very injurious to the eyes. 3.12 Odor Threshold: Currently not available. 3.13 IDLH Value: Not listed. 3.14 OSHA PEL-TWA: Not listed. 3.15 OSHA PEL-STEL: Not listed. 3.16 OSHA PEL-Ceiling: Not listed. 3.17 EPA A EGL: Not listed

4. FIRE HAZARDS	7. SHIPPING INFORMATION							
4.1 Flash Point: 212°F O.C. 4.2 Flammable Limits in Air: 1.8% (LFL) 4.3 Fire Extinguishing Agents: Dry chemical, "alcohol" foam, carbon dioxide 4.4 Fire Extinguishing Agents Not to Be Used: Water may be ineffective. 4.5 Special Hazards of Combustion Products: Currently not available 4.6 Behavior in Fire: Currently not available 4.7 Auto Ignition Temperature: Currently not available 4.8 Electrical Hazards: Currently not available 4.9 Burning Rate: Currently not available 4.10 Adiabatic Flame Temperature: Currently not available 4.11 Stoichiometric Air to Fuel Ratio: 33.3 (calc.) 4.12 Flame Temperature: Currently not available 4.13 Combustion Molar Ratio (Reactant to Product): 11.0 (calc.) 4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed	7.1 Grades of Purity: Commercial, 97% 7.2 Storage Temperature: Ambient 7.3 Inert Atmosphere: No requirement 7.4 Venting: Open 7.5 IMO Pollution Category: Currently not available 7.6 Ship Type: Currently not available 7.7 Barge Hull Type: Currently not available							
8. HAZARD CLASSIFICATIONS								
8.1 49 CFR Category: Not listed 8.2 49 CFR Class: Not pertinent 8.3 49 CFR Package Group: Not listed. 8.4 Marine Pollutant: No 8.5 NFPA Hazard Classification: <table border="0"> <tr> <td>Category</td> <td>Classification</td> </tr> <tr> <td>Health Hazard (Blue).....</td> <td>1</td> </tr> <tr> <td>Flammability (Red).....</td> <td>1</td> </tr> <tr> <td>Instability (Yellow).....</td> <td>0</td> </tr> </table>	Category	Classification	Health Hazard (Blue).....	1	Flammability (Red).....	1	Instability (Yellow).....	0
Category	Classification							
Health Hazard (Blue).....	1							
Flammability (Red).....	1							
Instability (Yellow).....	0							
8.6 EPA Reportable Quantity: Not listed. 8.7 EPA Pollution Category: Not listed. 8.8 RCRA Waste Number: Not listed 8.9 EPA FWCRA List: Not listed								
9. PHYSICAL & CHEMICAL PROPERTIES								
9.1 Physical State at 15° C and 1 atm: Liquid 9.2 Molecular Weight: 130 9.3 Boiling Point at 1 atm: Not pertinent (decomposes) 9.4 Freezing Point: Not pertinent 9.5 Critical Temperature: Not pertinent 9.6 Critical Pressure: Not pertinent 9.7 Specific Gravity: 1.06 at 25°C (liquid) 9.8 Liquid Surface Tension: Currently not available 9.9 Liquid Water Interfacial Tension: Currently not available 9.10 Vapor (Gas) Specific Gravity: 4.5 9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent 9.12 Latent Heat of Vaporization: Currently not available 9.13 Heat of Combustion: (est.) -12,300 Btu/lb -6,850 cal/g = -287 X 10 ³ J/kg 9.14 Heat of Decomposition: Not pertinent 9.15 Heat of Solution: Not pertinent 9.16 Heat of Polymerization: Currently not available 9.17 Heat of Fusion: Currently not available 9.18 Limiting Value: Currently not available 9.19 Reid Vapor Pressure: Currently not available								

NOTES

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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
77	66.169		NOT PERTINENT		NOT PERTINENT		NOT PERTINENT

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
	MISCELLANEOUS		NOT PERTINENT		NOT PERTINENT		NOT PERTINENT