

2-AMINO-2-METHYL-1-PROPANOL (90% OR LESS)

APR

CAUTIONARY RESPONSE INFORMATION

Common Synonyms		Viscous liquid	Colorless
2-Aminodimethylethanol beta-Aminoisobutanol AMP AMP-95 Isobutanol amine Isobutanol-2-amine 1-Propanol, 2-amino-2-methyl-		Miscible with water.	
<p>AVOID CONTACT WITH LIQUID AND VAPOR. KEEP PEOPLE AWAY. Wear self-contained breathing apparatus and full protective clothing. Stop discharge if possible. Shut off ignition sources and call fire department. Evacuate area. Stay upwind and use water spray to "knock down" vapor. Isolate and remove discharged material. Notify local health and pollution control agencies.</p>			
Fire	Combustible. POISONOUS GASES ARE PRODUCED IN FIRE. Containers may explode in fire. Wear self-contained breathing apparatus and full protective clothing. Extinguish with dry chemical, carbon dioxide, water spray or alcohol foam. Cool exposed containers with water.		
Exposure	CALL FOR MEDICAL AID. VAPOR Irritating to eyes, nose and throat. Harmful if inhaled. Move to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. LIQUID Will burn skin and eyes. Harmful if swallowed. IF IN EYES OR ON SKIN, flush with plenty of water for at least 15 minutes. Remove and isolate contaminated clothing and shoes at the site.		
Water Pollution	Effect of low concentrations on aquatic life is not known. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.		

<p>1. CORRECTIVE RESPONSE ACTIONS Stop discharge Dilute and disperse</p>	<p>2. CHEMICAL DESIGNATIONS 2.1 CG Compatibility Group: 8; Alkanolamines. 2.2 Formula: CH₃C(CH₃)(NH₂)CH₂OH 2.3 IMO/UN Designation: Data not available. 2.4 DOT ID No.: Data not available. 2.5 CAS Registry No.: 124-68-5 2.6 NAERG Guide No.: Not listed 2.7 Standard Industrial Trade Classification: 51461</p>
<p>3. HEALTH HAZARDS</p> <p>3.1 Personal Protective Equipment: Self-contained breathing apparatus, rubber boots and heavy rubber gloves.</p> <p>3.2 Symptoms Following Exposure: Causes severe irritation. Inhalation may be fatal as a result of spasm, inflammation, and edema of larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting.</p> <p>3.3 Treatment of Exposure: INHALATION: Call for medical aid. Remove victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. EYES - OR - SKIN: Flush with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes. Assure adequate flushing of the eyes by separating the eyelids with the fingers.</p> <p>3.4 TLV-TWA: Not listed. 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: Not listed. 3.7 Toxicity by Ingestion: Grade 2; LD₅₀ = 1 g/kg (rabbit) 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Data not available. 3.10 Vapor (Gas) Irritant Characteristics: Vapors cause severe irritation of eyes and throat and can cause eye and lung injury. They cannot be tolerated even at low 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: Data 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 AEGL: Not listed</p>	

<p>4. FIRE HAZARDS</p> <p>4.1 Flash Point: 153°F C.C. 4.2 Flammable Limits in Air: Data not available. 4.3 Fire Extinguishing Agents: Carbon dioxide, dry chemical, alcohol foam. 4.4 Fire Extinguishing Agents Not to Be Used: Data not available. 4.5 Special Hazards of Combustion Products: Emits toxic fumes during fire conditions. 4.6 Behavior in Fire: Data not available. 4.7 Auto Ignition Temperature: Data not available. 4.8 Electrical Hazards: Data not available. 4.9 Burning Rate: Data not available. 4.10 Adiabatic Flame Temperature: Data not available. 4.11 Stoichiometric Air to Fuel Ratio: Data not available. 4.12 Flame Temperature: Data not available. 4.13 Combustion Molar Ratio (Reactant to Product): Data not available. 4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed</p> <p>5. CHEMICAL REACTIVITY</p> <p>5.1 Reactivity with Water: No reaction. 5.2 Reactivity with Common Materials: Data not available. 5.3 Stability During Transport: Stable. 5.4 Neutralizing Agents for Acids and Caustics: Data not available. 5.5 Polymerization: Data not available. 5.6 Inhibitor of Polymerization: Data not available.</p> <p>6. WATER POLLUTION</p> <p>6.1 Aquatic Toxicity: Data not available. 6.2 Waterfowl Toxicity: Data not available. 6.3 Biological Oxygen Demand (BOD): Data not available. 6.4 Food Chain Concentration Potential: Data not available. 6.5 GESAMP Hazard Profile: Bioaccumulation: 0 Damage to living resources: 1 Human Oral hazard: 1 Human Contact hazard: II Reduction of amenities: X</p>	<p>7. SHIPPING INFORMATION</p> <p>7.1 Grades of Purity: Different grades of purity up to 99+%</p> <p>7.2 Storage Temperature: Ambient 7.3 Inert Atmosphere: Data not available. 7.4 Venting: Data not available. 7.5 IMO Pollution Category: D 7.6 Ship Type: 3 7.7 Barge Hull Type: Currently not available</p> <p>8. HAZARD CLASSIFICATIONS</p> <p>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: Category Classification Health Hazard (Blue)..... 2 Flammability (Red)..... 2 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 FWPCA List: Not listed</p> <p>9. PHYSICAL & CHEMICAL PROPERTIES</p> <p>9.1 Physical State at 15° C and 1 atm: Liquid 9.2 Molecular Weight: 89.14 9.3 Boiling Point at 1 atm: 329°F = 165°C = 438.2°K (99+% compound) 9.4 Freezing Point: 87.8-89.6°F = 31-32°C = 304.2-305.2°K 9.5 Critical Temperature: Data not available. 9.6 Critical Pressure: Data not available. 9.7 Specific Gravity: 0.935 9.8 Liquid Surface Tension: Data not available. 9.9 Liquid Water Interfacial Tension: Data not available. 9.10 Vapor (Gas) Specific Gravity: 3.0 9.11 Ratio of Specific Heats of Vapor (Gas): Data not available. 9.12 Latent Heat of Vaporization: Data not available. 9.13 Heat of Combustion: Data not available. 9.14 Heat of Decomposition: Data not available. 9.15 Heat of Solution: Data not available. 9.16 Heat of Polymerization: Data not available. 9.17 Heat of Fusion: Data not available. 9.18 Limiting Value: Data not available. 9.19 Reid Vapor Pressure: Data not available.</p>
<p>NOTES</p>	

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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
	C U R R E N T L Y N O T A V A I L A B L E		C U R R E N T L Y N O T A V A I L A B L E		C U R R E N T L Y N O T A V A I L A B L E		C U R R E N T L Y N O T A V A I L A B L E

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
	M I S C I B L E	77	0.019		C U R R E N T L Y N O T A V A I L A B L E	0 25 50 75 100 125 150 175 200 225 250 275 300 325 350 375 400 425 450 475 500 525 550 575 600	0.359 0.372 0.385 0.398 0.411 0.423 0.435 0.447 0.459 0.470 0.481 0.492 0.503 0.514 0.524 0.534 0.544 0.554 0.564 0.573 0.582 0.591 0.600 0.608 0.617