

ALPHA-METHYLSTYRENE

MSR

CAUTIONARY RESPONSE INFORMATION			4. FIRE HAZARDS	7. SHIPPING INFORMATION
Common Synonyms Isopropenylbenzene 1-Methyl-1-phenylethylene Phenylpropylene	Liquid Colorless Floats on water.	Keep people away. Avoid contact with liquid. Call fire department. Notify local health and pollution control agencies.	4.1 Flash Point: 137°F C.C. 4.2 Flammable Limits in Air: 1.9%-6.1% 4.3 Fire Extinguishing Agents: Dry chemical, 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: 1,066°F 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: 54.7 (calc.) 4.12 Flame Temperature: Currently not available 4.13 Combustion Molar Ratio (Reactant to Product): 14.0 (calc.) 4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed	7.1 Grades of Purity: Commercial 7.2 Storage Temperature: Ambient 7.3 Inert Atmosphere: No requirement 7.4 Venting: Open (flame arrester) 7.5 IMO Pollution Category: A 7.6 Ship Type: 3 7.7 Barge Hull Type: 3
Fire	Combustible. Extinguish with dry chemicals, foam or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water.	CALL FOR MEDICAL AID.	8. HAZARD CLASSIFICATIONS	
Exposure	LIQUID Will burn skin and eyes. If swallowed will cause nausea and vomiting. 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. DO NOT INDUCE VOMITING.	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: Yes 8.5 NFPA Hazard Classification: Category Classification Health Hazard (Blue)..... 1 Flammability (Red)..... 2 Instability (Yellow)..... 1	8. HAZARD CLASSIFICATIONS	
Water Pollution	HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS. Fouling to shoreline. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.	8.6 EPA Reportable Quantity: Not listed. 8.7 EPA Pollution Category: Not listed. 8.8 RCRA Waste Number: Not listed 8.9 EPA FWCNA List: Not listed	9. PHYSICAL & CHEMICAL PROPERTIES	
1. CORRECTIVE RESPONSE ACTIONS	2. CHEMICAL DESIGNATIONS	9.1 Physical State at 15° C and 1 atm: Liquid 9.2 Molecular Weight: 118.17 9.3 Boiling Point at 1 atm: 329°F = 165°C = 438°K 9.4 Freezing Point: -9.8°F = -23.2°C = 250.0°F 9.5 Critical Temperature: 719.1°F = 381.7°C = 654.9°K 9.6 Critical Pressure: 494 psia = 33.6 atm = 3.41 MN/m² 9.7 Specific Gravity: 0.91 at 20°C (liquid) 9.8 Liquid Surface Tension: 33.88 dynes/cm = 0.03388 N/m at 20°C 9.9 Liquid Water Interfacial Tension: Currently not available 9.10 Vapor (Gas) Specific Gravity: 4.08 9.11 Ratio of Specific Heats of Vapor (Gas): 1.060 at 27°C 9.12 Latent Heat of Vaporization: 140.4 Btu/lb = 78.0 cal/g = 3.26 X 10⁵ J/kg 9.13 Heat of Combustion: -17,690 Btu/lb = -9,830 cal/g = -411 X 10⁵ 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: 0.23 psia	6. WATER POLLUTION	
3.1 Personal Protective Equipment: Neoprene gloves; splashproof goggles or face shield 3.2 Symptoms Following Exposure: Inhalation causes irritation of respiratory tract, headache, dizziness, light-headedness, and breathlessness. Ingestion causes irritation of mouth and stomach. Contact with liquid irritates eyes. Prolonged skin contact can cause severe rashes, swelling, and blistering. 3.3 Treatment of Exposure: INHALATION: remove victim to fresh air; if he is not breathing, give artificial respiration; contact a physician; keep victim quiet and warm. INGESTION: do NOT induce vomiting; call physician. EYES: flush with water for at least 15 min.; get medical attention. SKIN: wash area with soap and water. 3.4 TLV-TWA: 50 ppm 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: 100 ppm 3.7 Toxicity by Ingestion: Grade 2; LD ₅₀ = 0.5-5 g/kg 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Currently not available 3.10 Vapor (Gas) Irritant Characteristics: Currently not available 3.11 Liquor or Solid Characteristics: Currently not available 3.12 Odor Threshold: <10 ppm 3.13 IDLH Value: 700 ppm 3.14 OSHA PEL-TWA: Not listed. 3.15 OSHA PEL-STEL: Not listed. 3.16 OSHA PEL-Ceiling: 100 ppm 3.17 EPA AEGL: Not listed	3. HEALTH HAZARDS	6.1 Aquatic Toxicity: 10 ppm/96 hr/fathead minnow/LC ₅₀ 6.2 Waterfowl Toxicity: Currently not available 6.3 Biological Oxygen Demand (BOD): Currently not available 6.4 Food Chain Concentration Potential: None 6.5 GESAMP Hazard Profile: Not listed	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
34	57.870		N		N	68	
36	57.800		O		O		0.940
38	57.740		T		T		
40	57.680						
42	57.620		P		P		
44	57.550		E		E		
46	57.490		R		R		
48	57.430		T		T		
50	57.370		I		I		
52	57.300		N		N		
54	57.240		E		E		
56	57.180		N		N		
58	57.120		T		T		
60	57.050						
62	56.990						
64	56.930						
66	56.870						
68	56.800						
70	56.740						
72	56.680						
74	56.620						
76	56.550						
78	56.490						
80	56.430						
82	56.370						
84	56.310						

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
77	0.060	70	0.039	70	0.00082		N
		80	0.055	80	0.00112		O
		90	0.076	90	0.00152		T
		100	0.103	100	0.00203		
		110	0.139	110	0.00269		P
		120	0.186	120	0.00353		E
		130	0.246	130	0.00459		R
		140	0.322	140	0.00592		T
		150	0.418	150	0.00756		I
		160	0.539	160	0.00957		N
		170	0.688	170	0.01203		O
		180	0.872	180	0.01500		T
		190	1.097	190	0.01858		P
		200	1.370	200	0.02287		E
		210	1.701	210	0.02795		R
		220	2.097	220	0.03397		T
		230	2.570	230	0.04103		I
		240	3.132	240	0.04928		N
		250	3.796	250	0.05888		O
		260	4.576	260	0.06999		T
		270	5.487	270	0.08278		P
		280	6.548	280	0.09745		E
		290	7.777	290	0.11420		R
		300	9.195	300	0.13320		T
		310	10.820	310	0.15480		I
		320	12.690	320	0.17920		N