

GLUTARALDEHYDE SOLUTION

GTA

CAUTIONARY RESPONSE INFORMATION			4. FIRE HAZARDS	7. SHIPPING INFORMATION
Common Synonyms 1,5-Pentanedral	Liquid	Light yellow Mixes with water.	4.1 Flash Point: Non-flammable solution 4.2 Flammable Limits in Air: Not pertinent 4.3 Fire Extinguishing Agents: Not pertinent 4.4 Fire Extinguishing Agents Not to Be Used: Not pertinent 4.5 Special Hazards of Combustion Products: Not pertinent 4.6 Behavior in Fire: Not pertinent 4.7 Auto Ignition Temperature: Not pertinent 4.8 Electrical Hazards: Not pertinent 4.9 Burning Rate: Not pertinent 4.10 Adiabatic Flame Temperature: Currently not available 4.11 Stoichiometric Air to Fuel Ratio: Not pertinent 4.12 Flame Temperature: Currently not available 4.13 Combustion Molar Ratio (Reactant to Product): Not pertinent 4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed	7.1 Grades of Purity: 25% aqueous solution; 50% aqueous solution 7.2 Storage Temperature: Ambient 7.3 Inert Atmosphere: No requirement 7.4 Venting: Open 7.5 IMO Pollution Category: D 7.6 Ship Type: 3 7.7 Barge Hull Type: 3
Keep people away. Avoid contact with liquid and vapor. Notify local health and pollution control agencies. Protect water intakes.	Fire	Not flammable.	8. HAZARD CLASSIFICATIONS	
Call for medical aid.	Exposure	LIQUID Irritating to skin and eyes. Harmful if swallowed. 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.	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: Not listed 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	8. HAZARD CLASSIFICATIONS
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.	Water Pollution		9. PHYSICAL & CHEMICAL PROPERTIES	
1. CORRECTIVE RESPONSE ACTIONS Dilute and disperse Stop discharge	2. CHEMICAL DESIGNATIONS	2.1 CG Compatibility Group: 19; Aldehyde 2.2 Formula: OHC-(CH ₂) ₃ -CHO (in water) 2.3 IMO/UN Designation: Not listed 2.4 DOT ID No.: Not listed 2.5 CAS Registry No.: 111-30-8 2.6 NAERG Guide No.: Not listed 2.7 Standard Industrial Trade Classification: 51621	5.1 Reactivity with Water: No reaction 5.2 Reactivity with Common Materials: No reaction 5.3 Stability During Transport: Stable 5.4 Neutralizing Agents for Acids and Caustics: Not pertinent 5.5 Polymerization: Not pertinent 5.6 Inhibitor of Polymerization: Not pertinent	9.1 Physical State at 15° C and 1 atm: Liquid 9.2 Molecular Weight: Mixture 9.3 Boiling Point at 1 atm: >212°F = >100°C = >373°K 9.4 Freezing Point: <20°F = <-7°C = <266°K 9.5 Critical Temperature: Not pertinent 9.6 Critical Pressure: Not pertinent 9.7 Specific Gravity: 1.062-1.124 at 20°C (liquid) 9.8 Liquid Surface Tension: (est.) <80 dynes/cm = <0.080 N/m at 20°C 9.9 Liquid Water Interfacial Tension: Not pertinent 9.10 Vapor (Gas) Specific Gravity: Not pertinent 9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent 9.12 Latent Heat of Vaporization: Not pertinent 9.13 Heat of Combustion: Not pertinent 9.14 Heat of Decomposition: Not pertinent 9.15 Heat of Solution: Not pertinent 9.16 Heat of Polymerization: Not pertinent 9.17 Heat of Fusion: Currently not available 9.18 Limiting Value: Currently not available 9.19 Reid Vapor Pressure: Currently not available
3.1 Personal Protective Equipment: Goggles or face shield; rubber gloves. 3.2 Symptoms Following Exposure: Contact with liquid causes severe irritation of eyes and irritation of skin. Chemical readily penetrates skin in harmful amounts. Ingestion causes irritation of mouth and stomach. 3.3 Treatment of Exposure: EYES: immediately flush with plenty of water for at least 15 min.; get medical attention. SKIN: immediately flush with plenty of water for at least 15 min. INGESTION: give large amounts of water and induce vomiting; get medical attention. 3.4 TLV-TWA: Not listed. 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: 0.05 ppm 3.7 Toxicity by Ingestion: Grade 2; oral rat LD ₅₀ = 2,380 mg/kg 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Induces contact dermatitis in some people 3.10 Vapor (Gas) Irritant Characteristics: Currently not available 3.11 Liquid or Solid Characteristics: Currently not available 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	3. HEALTH HAZARDS	6. WATER POLLUTION	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
35	68.610	34	0.700		N O T	68	4.500
40	68.530	36	0.700		P E R T I N E N T		
45	68.440	38	0.700				
50	68.349	40	0.700				
55	68.270	42	0.700				
60	68.179	44	0.700				
65	68.089	46	0.700				
70	68.009	48	0.700				
75	67.919	50	0.700				
80	67.830	52	0.700				
85	67.750	54	0.700				
90	67.660	56	0.700				
95	67.570	58	0.700				
100	67.490	60	0.700				
		62	0.700				
		64	0.700				
		66	0.700				
		68	0.700				
		70	0.700				
		72	0.700				
		74	0.700				
		76	0.700				
		78	0.700				
		80	0.700				
		82	0.700				
		84	0.700				

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		N O T P E R T I N E N T		N O T P E R T I N E N T		N O T P E R T I N E N T