

ETHYLENE GLYCOL DIACETATE

EGY

CAUTIONARY RESPONSE INFORMATION

Common Synonyms		Liquid	Colorless	Weak fruity odor
Ethylene acetate Ethylene diacetate Glycol diacetate		Sinks and mixes with water.		
<p>Keep people away. Call fire department. Notify local health and pollution control agencies. Protect water intakes.</p>				
Fire	Combustible. Extinguish with water, dry chemicals, alcohol foam, or carbon dioxide.			
Exposure	Call for medical aid. LIQUID Irritating to skin and eyes. 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.			
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

Dilute and disperse
Stop discharge

2. CHEMICAL DESIGNATIONS

- 2.1 CG Compatibility Group: Not listed.
- 2.2 Formula: $\text{CH}_3\text{COOCH}_2\text{CH}_2\text{OCOCH}_3$
- 2.3 IMO/UN Designation: Not listed
- 2.4 DOT ID No.: Not listed
- 2.5 CAS Registry No.: 111-55-7
- 2.6 NAERG Guide No.: Not listed
- 2.7 Standard Industrial Trade Classification: 51372

3. HEALTH HAZARDS

- 3.1 Personal Protective Equipment: Goggles or face shield; rubber gloves.
- 3.2 Symptoms Following Exposure: Inhalation is not hazardous. Liquid causes mild irritation of eyes. Ingestion causes stupor or coma.
- 3.3 Treatment of Exposure: INHALATION: remove to fresh air. EYES and SKIN: flush well with water. INGESTION: induce vomiting; call a physician.
- 3.4 TLV-TWA: Not listed.
- 3.5 TLV-STEL: Not listed.
- 3.6 TLV-Ceiling: Not listed.
- 3.7 Toxicity by Ingestion: Grade 1; oral LD_{50} = 6,860 mg/kg (rat)
- 3.8 Toxicity by Inhalation: Currently not available.
- 3.9 Chronic Toxicity: Ingestion may cause severe injury to kidneys.
- 3.10 Vapor (Gas) Irritant Characteristics: Vapors are nonirritating to eyes and throat.
- 3.11 Liquid or Solid Characteristics: No appreciable hazard. Practically harmless to the skin.
- 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 AEGL: Not listed

4. FIRE HAZARDS

- 4.1 Flash Point: 205°F O.C. 191°F C.C.
- 4.2 Flammable Limits in Air: 1.6%-8.4%
- 4.3 Fire Extinguishing Agents: Water, alcohol foam, dry chemical, or carbon dioxide
- 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: 900°F
- 4.8 Electrical Hazards: Currently not available
- 4.9 Burning Rate: 2.9 mm/min.
- 4.10 Adiabatic Flame Temperature: Currently not available
- 4.11 Stoichiometric Air to Fuel Ratio: 30.9 (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

5. CHEMICAL REACTIVITY

- 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

6. WATER POLLUTION

- 6.1 Aquatic Toxicity: Currently not available
- 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:
 - Bioaccumulation: 0
 - Damage to living resources: 2
 - Human Oral hazard: 1
 - Human Contact hazard: 0
 - Reduction of amenities: 0

7. SHIPPING INFORMATION

- 7.1 Grades of Purity: 98+%
- 7.2 Storage Temperature: Ambient
- 7.3 Inert Atmosphere: No requirement
- 7.4 Venting: Open (flame arrester)
- 7.5 IMO Pollution Category: C
- 7.6 Ship Type: 3
- 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:

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 FWPCA List: Not listed

9. PHYSICAL & CHEMICAL PROPERTIES

- 9.1 Physical State at 15° C and 1 atm: Liquid
- 9.2 Molecular Weight: 146.1
- 9.3 Boiling Point at 1 atm: 375.6°F = 190.9°C = 464.1°K
- 9.4 Freezing Point: -42.7°F = -41.5°C = 231.7°K
- 9.5 Critical Temperature: Not pertinent
- 9.6 Critical Pressure: Not pertinent
- 9.7 Specific Gravity: 1.104 at 20°C (liquid)
- 9.8 Liquid Surface Tension: (est.) 20 dynes/cm = 0.020 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: 133 Btu/lb = 74 cal/g = 3.1×10^5 J/kg
- 9.13 Heat of Combustion: (est.) -11,000 Btu/lb = -6,000 cal/g = -250×10^5 J/kg
- 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

NOTES

ETHYLENE GLYCOL DIACETATE

EGY

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	70.169	52	0.471	42	1.048	34	4.744
40	69.980	54	0.472	44	1.048	36	4.600
45	69.790	56	0.473	46	1.048	38	4.461
50	69.599	58	0.474	48	1.048	40	4.328
55	69.410	60	0.476	50	1.048	42	4.199
60	69.219	62	0.477	52	1.048	44	4.075
65	69.030	64	0.478	54	1.048	46	3.956
70	68.839	66	0.479	56	1.048	48	3.841
75	68.650	68	0.480	58	1.048	50	3.731
80	68.459	70	0.481	60	1.048	52	3.624
85	68.270	72	0.482	62	1.048	54	3.521
90	68.070	74	0.483	64	1.048	56	3.422
95	67.879	76	0.484	66	1.048	58	3.327
100	67.690	78	0.486	68	1.048	60	3.234
105	67.500	80	0.487	70	1.048	62	3.146
110	67.309	82	0.488	72	1.048	64	3.060
115	67.120	84	0.489	74	1.048	66	2.977
120	66.929	86	0.490	76	1.048	68	2.897
						70	2.819
						72	2.745
						74	2.673
						76	2.603
						78	2.535
						80	2.470
						82	2.407
						84	2.346

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
68	16.400	160	0.135	160	0.00297		N
		170	0.181	170	0.00390		O
		180	0.239	180	0.00508		T
		190	0.313	190	0.00656		
		200	0.407	200	0.00839		P
		210	0.525	210	0.01066		E
		220	0.671	220	0.01345		R
		230	0.853	230	0.01684		T
		240	1.077	240	0.02095		I
		250	1.351	250	0.02590		N
		260	1.683	260	0.03183		E
		270	2.085	270	0.03888		N
		280	2.567	280	0.04723		T
		290	3.144	290	0.05707		
		300	3.829	300	0.06860		
		310	4.641	310	0.08206		
		320	5.596	320	0.09769		
		330	6.716	330	0.11580		
		340	8.024	340	0.13650		
		350	9.545	350	0.16040		
		360	11.310	360	0.18770		
		370	13.340	370	0.21880		