TRIETHYLENE GLYCOL

CAUTIONARY RESPONSE INFORMATION

Common Synonyms
Di-beta-hydroxyethoxyethane
2,2'-Ethlenedioxydiethanol
Ethylene glycol dihydroxydiethyl ether
TEG
Triglycol

Liquid
Colorless
Mild odor

Sinks and mixes with water.

Fire
Combustible
Extinguish with dry chemical, alcohol foam, or carbon dioxide.
Water may be ineffective on fire.
Cool exposed containers with water.

Exposure
Not harmful.

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

3. HEALTH HAZARDS
3.1 Personal Protective Equipment: Goggles, plastic gloves.
3.2 Symptoms Following Exposure: Vapor and liquid are unlikely to cause harm.
3.3 Treatment of Exposure: Flush eyes and skin with water.
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; LD50 = 5 to 15 g/kg (guinea pig)
3.8 Toxicity by Inhalation: Currently not available.
3.9 Chronic Toxicity: Currently not available
3.10 Vapor (Gas) Irritant Characteristics: Vapors are non-irritating to the 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: 330°F O.C. 350°F C.C.
4.2 Flammable Limits in Air: 0.9%-9.2%
4.3 Fire Extinguishing Agents: Alcohol foam, dry chemical, or carbon dioxide
4.4 Fire Extinguishing Agents Not to Be Used: Water or foam may cause fuming.
4.5 Special Hazards of Combustion: Products: Not pertinent
4.6 Behavior in Fire: Not pertinent
4.7 Auto-Ignition Temperature: 700°F
4.8 Electrical Hazards: Not pertinent
4.9 Burning Rate: 1.7 m/min.
4.10 Adiabatic Flame Temperature: Currently not available
4.11 Stoichiometric Air to Fuel Ratio: 88.1
4.12 Flame Temperature: Currently not available
4.13 Combustion Molar Ratio (Reactant to Product): 14.0
4.14 Minimum Oxygen Concentration for Combustion (MOC): Not pertinent

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): 50%, 5 days
6.4 Food Chain Concentration Potential: None
6.5 GESAMP Hazard Profile: Bioaccumulation: 0 Damage to living resources: 0 Human Oral hazard: 0 Human Contact hazard: 0 Reduction of amenities: 0

7. SHIPPING INFORMATION
7.1 Grades of Purity: High purity: air treatment; commercial
7.2 Storage Temperature: Ambient
7.3 Inert Atmosphere: No requirement
7.4 Venting: Open (flame arrester)
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 40 CFR Class: 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: 150.17
9.3 Boiling Point at 1 atm: 550°F = 268°C = 581 K
9.4 Freezing Point: 24.3°F = –4.3°C = 268.9 K
9.5 Critical Temperature: Not pertinent
9.6 Critical Pressure: Not pertinent
9.7 Specific Gravity: 1.125 at 20°C (liquid)
9.8 Liquid Surface Tension: 45.2 dynes/cm = 0.0452 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: 180 Btu/lb = 99 cal/g = 4.1 X 10^10 J/kg
9.13 Heat of Combustion: –10,190 Btu/lb = –5,660 cal/g = –237.0 X 10^10 J/kg
9.14 Heat of Decomposition: Not pertinent
9.15 Heat of Solution: (est.) –13 Btu/lb = –7 cal/g = –3 X 10^10 J/kg
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: Very low

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