PROPARGYL ALCOHOL

PRO

CAUTIONARY RESPONSE INFORMATION

Common Synonyms
Ethynyl carbinol
Ethynyl methanol
Propiolic alcohol
1-Propyne-3-ol
2-Propyn-1-ol
Propynyl alcohol

Liquid Colorless Geranium odor

Floats on water.

Keep people away. Avoid contact with liquid and vapor.
Shut off ignition sources. Call fire department.
Wear self-contained breathing apparatus and full protective clothing.
Notify local health and pollution control agencies.
Protect water intakes.

Fire

COMBUSTIBLE.
Containers may explode in fire.
Flashback may occur along vapor trail.
Forms explosive mixtures in air.
Water may be ineffective against fire.
Wear self-contained breathing apparatus and full protective clothing.
Extinguish with CO_2, dry chemical, or alcohol foam.

Exposure

CALL FOR MEDICAL AID

VAPOR
May be harmful or fatal if inhaled or absorbed through the skin.
Causes severe irritation of the eyes, nose, and throat.
Move victim to fresh air.
If breathing has stopped, give artificial respiration.
If breathing is difficult, give oxygen.

LIQUID
May be harmful or fatal if swallowed or absorbed through the skin.
Extremely irritating to the eyes and skin.
Remove contaminated clothing and shoes.
Flush affected areas with plenty of running water.
IF IN EYES: flush with running water for at least 15 minutes.
IF SWALLOWED: DO NOT INDUCE VOMITING.

Water Pollution

Effects of low concentrations on aquatic life are not known.
Fouling to shoreline.
May be dangerous if it enters local water intakes.
Notify local health and wildlife officials.
Notify operators of nearby water intakes.

1. CORRECTIVE RESPONSE ACTIONS

Stop discharge
Dilute and disperse

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: Not listed.
2.2 Formula: $HCCCH_2OH$
2.3 IMO/UN Designation: /1986
2.4 DOT ID No.: 1986
2.5 CAS Registry No.: 107-19-7
2.6 NAERG Guide No.: 131
2.7 Standard Industrial Trade Classification: 51219

3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Approved respirator, chemical resistant gloves, safety goggles, full protective clothing.
3.2 Symptoms Following Exposure: Severe health hazard. Central nervous system depressant. May be fatal is absorbed through skin or inhaled. Causes severe irritation. High concentrations are extremely destructive to mucous membranes, upper respiratory tract, eyes and skin. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.
3.3 Treatment of Exposure: Call a physician. INHALATION: Remove to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. EYES AND SKIN: Remove contaminated clothing and shoes. Flush affected areas with running water for at least 15 minutes. INGESTION: Do not induce vomiting.
3.4 TLV-TWA: 1 ppm
3.5 TLV-STEL: Not listed.
3.6 TLV-Ceiling: Not listed.
3.7 Toxicity by Ingestion: Grade 4; LD_{50} = 20 mg/kg (rat)
3.8 Toxicity by Inhalation: Currently not available.
3.9 Chronic Toxicity: Central nervous system depressant.
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: Fairly severe skin irritant. May cause pain and second degree burns after a few minutes' contact.
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: 97°F C.C.
4.2 Flammable Limits in Air: Currently not available
4.3 Fire Extinguishing Agents: Alcohol foam, CO_2, dry chemical.
4.4 Fire Extinguishing Agents Not to Be Used: Water may be ineffective against fire.
4.5 Special Hazards of Combustion Products: Acrid smoke, fumes
4.6 Behavior in Fire: Currently not available
4.7 Auto Ignition Temperature: Currently not available
4.8 Electrical Hazards: Class I, Group undesignated
4.9 Burning Rate: Currently not available
4.10 Adiabatic Flame Temperature: Currently not available
4.11 Stoichometric Air to Fuel Ratio: 16.7 (calc.)
4.12 Flame Temperature: Currently not available
4.13 Combustion Molar Ratio (Reactant to Product): 5.0 (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: Currently not available
5.4 Neutralizing Agents for Acids and Caustics: Not pertinent
5.5 Polymerization: May undergo autopolymerization
5.6 Inhibitor of Polymerization: Currently not available

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: Currently not available
6.5 GESAMP Hazard Profile: Not listed

7. SHIPPING INFORMATION

7.1 Grades of Purity: 99%
7.2 Storage Temperature: Refrigerate
7.3 Inert Atmosphere: Currently not available
7.4 Venting: None
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 49 CFR Category: Flammable liquid
8.2 49 CFR Class: 3
8.3 49 CFR Package Group: II
8.4 Marine Pollutant: No
8.5 NFPA Hazard Classification:

Category	Classification
Health Hazard (Blue).....	4
Flammability (Red).....	3
Instability (Yellow).....	3

8.6 EPA Reportable Quantity: 1000 pounds
8.7 EPA Pollution Category: C
8.8 RCRA Waste Number: P102
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: 56.07
9.3 Boiling Point at 1 atm: 237°F = 114°C = 387°K
9.4 Freezing Point: -54°F = -48°C = 225°K
9.5 Critical Temperature: Currently not available
9.6 Critical Pressure: Currently not available
9.7 Specific Gravity: 0.9485 at 20°C
9.8 Liquid Surface Tension: 36 dyne/cm = 0.036 N/m at 20°C
9.9 Liquid Water Interfacial Tension: Currently not available
9.10 Vapor (Gas) Specific Gravity: 1.93
9.11 Ratio of Specific Heats of Vapor (Gas): Currently not available
9.12 Latent Heat of Vaporization: Currently not available
9.13 Heat of Combustion: Currently not available
9.14 Heat of Decomposition: Currently not available
9.15 Heat of Solution: Currently not available
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: Currently not available

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
68	59.210		CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE	68	1.680

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
	CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE