

COLLODION

CLD

CAUTIONARY RESPONSE INFORMATION

Common Synonyms Box toe gum Cellulose nitrate solution Nitrocellulose gum Nitrocellulose solution Pyroxylin solution	Thick liquid Colorless Ether-like odor Floats on water. Flammable, irritating vapor is produced. Boiling point is around 94°F.
<p>Evacuate. Keep people away. Avoid contact with liquid and vapor. Shut off ignition sources. Call fire department. Notify local health and pollution control agencies. Protect water intakes.</p>	
Fire	<p>FLAMMABLE. POISONOUS GASES MAY BE PRODUCED IN FIRE. Containers may explode in fire. Flashback along vapor trail may occur. Vapor may explode if ignited in an enclosed area. Extinguish with dry chemicals, alcohol foam, or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water.</p>
Exposure	<p>Call for medical aid.</p> <p>VAPOR Irritating to eyes, nose and throat. If inhaled will cause dizziness, difficult breathing, or loss of consciousness. Move victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.</p> <p>LIQUID Not harmful.</p>
Water Pollution	<p>Effect of low concentrations on aquatic life is unknown. Fouling to shoreline. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.</p>

1. CORRECTIVE RESPONSE ACTIONS

Stop discharge
Clean shore line

2. CHEMICAL DESIGNATIONS

2.1 **CG Compatibility Group:** Not listed.
2.2 **Formula:** Not pertinent
2.3 **IMO/UN Designation:** 3.2/2059
2.4 **DOT ID No.:** 2059
2.5 **CAS Registry No.:** Currently not available
2.6 **NAERG Guide No.:** 127
2.7 **Standard Industrial Trade Classification:** 51489

3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** Self-contained breathing apparatus; rubber gloves; goggles or face shield.
- 3.2 **Symptoms Following Exposure:** High concentration of ether fumes may cause narcosis, loss of consciousness and respiratory paralysis if inhaled. Contact with eyes causes irritation.
- 3.3 **Treatment of Exposure:** INHALATION: remove victim to fresh air; initiate artificial respiration if breathing has stopped; call 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 0; LD₅₀ > 15 g/kg
3.8 **Toxicity by Inhalation:** Currently not available.
3.9 **Chronic Toxicity:** Currently not available
- 3.10 **Vapor (Gas) Irritant Characteristics:** Vapors cause a slight smarting of the eyes or respiratory system if present in high concentrations. The effect is temporary.
- 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:**
-49°F C.C. (ether)
- 4.2 **Flammable Limits in Air:** 1.9%-36% (ether solution)
- 4.3 **Fire Extinguishing Agents:** Dry chemical, alcohol foam, carbon dioxide
- 4.4 **Fire Extinguishing Agents Not to Be Used:** Water may be ineffective.
- 4.5 **Special Hazards of Combustion Products:** The formation of extremely toxic gases, notably oxides of nitrogen, hydrogen cyanide, and carbon monoxide is possible.
- 4.6 **Behavior in Fire:** Highly flammable solvent vapors are formed. May travel a long distance to a source of ignition and flash back.
- 4.7 **Auto Ignition Temperature:** 356°F (ether)
- 4.8 **Electrical Hazards:** Class I, Group C
- 4.9 **Burning Rate:** Currently not available
- 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

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: -
Human Oral hazard: 1
Human Contact hazard: 0
Reduction of amenities: 0

7. SHIPPING INFORMATION

- 7.1 **Grades of Purity:** USP. All grades contain less than 60% nitrocellulose by weight.
- 7.2 **Storage Temperature:** Ambient
- 7.3 **Inert Atmosphere:** No requirement
- 7.4 **Venting:** Pressure-vacuum
- 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 | 0 | 1 | 2 |
|----------------------|----------------|---|---|---|
| Health Hazard (Blue) | | 0 | 2 | |
| Flammability (Red) | | 3 | 3 | |
| Instability (Yellow) | | 3 | 3 | |
- 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:** Not pertinent
- 9.3 **Boiling Point at 1 atm:** 93°F = 34°C = 307°K (ether solvent)
- 9.4 **Freezing Point:** Not pertinent
- 9.5 **Critical Temperature:** Not pertinent
- 9.6 **Critical Pressure:** Not pertinent
- 9.7 **Specific Gravity:** 0.772 at 25°C (liquid)
- 9.8 **Liquid Surface Tension:** Not pertinent
- 9.9 **Liquid Water Interfacial Tension:** Not pertinent
- 9.10 **Vapor (Gas) Specific Gravity:** Not pertinent
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

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
76	48.060		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

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
	I N S O L U B I 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