

# Zero Visibility Max Smoke Fluid

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Version: 2.1  
Revision Date: 08/14/2023

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

#### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** ZERO VISIBILITY MAX™ SMOKE FLUID

#### 1.2. Intended Use of the Product

**Use of the Substance/Mixture:** Fire Fighter Training (SCBA, S&R, TIC, PPV Training & Evaluation); Wind Tunnel; Leak Testing; Exhaust Hood Testing; Air Flow Analysis; Emergency Evacuation Training

#### 1.3. Name, Address, and Telephone of the Responsible Party

**Froggy's Fog LLC**

302 Rutherford Lane

Columbia, TN 38401

1-615-469-4906

[www.froggysfog.com](http://www.froggysfog.com)

#### 1.4. Emergency Telephone Number

Chemtrec: (800) 424-9300

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the Substance or Mixture

**Classification (GHS-US)**

Not classified

#### 2.2. Label Elements

**GHS-US Labeling**

No labeling required

#### 2.3. Other Hazards

**Other Hazards Not Contributing to the Classification:** Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

#### 2.4. Unknown Acute Toxicity (GHS-US)

No data available

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product Identifier	%	Classification (GHS-US)
Water	(CAS No) 7732-18-5	Proprietary	Not classified
Triethylene glycol	(CAS No) 112-27-6	Proprietary	Not classified
1,2-Propylene glycol	(CAS No) 57-55-6	Proprietary	Not classified

The specific chemical identity and/or exact percentage of composition has been withheld as a trade secret.

Full text of H-phrases: see section 16

### SECTION 4: FIRST AID MEASURES

#### 4.1. Description of First Aid Measures

**First-aid Measures General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First-aid Measures After Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

**First-aid Measures After Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

**First-aid Measures After Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist.

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**First-aid Measures After Ingestion:** Rinse mouth. Do NOT induce vomiting. Seek medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

**Symptoms/Injuries:** Not expected to present a significant hazard under anticipated conditions of normal use.

**Symptoms/Injuries After Inhalation:** None expected under normal conditions of use.

**Symptoms/Injuries After Skin Contact:** None expected under normal conditions of use.

**Symptoms/Injuries After Eye Contact:** None expected under normal conditions of use.

**Symptoms/Injuries After Ingestion:** None expected under normal conditions of use.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not flammable.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Other information:** Do not allow the product to be released into the environment. Do not allow run-off from fire fighting to enter drains or water courses.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapors, mist, spray).

#### 6.1.1. For Non-emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Responders

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and Material for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods for Cleaning Up:** Clear up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container.

### 6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from extremely high or low temperatures, direct sunlight, incompatible materials.

**Incompatible Products:** Strong acids. Strong bases. Strong oxidizers.

### 7.3. Specific End Use(s)

Fire Fighter Training (SCBA, S&R, TIC, PPV Training & Evaluation); Wind Tunnel; Leak Testing;

Exhaust Hood Testing; Air Flow Analysis; Emergency Evacuation Training

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### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control Parameters

1,2-Propanediol (57-55-6)		
USA AIHA	WEEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>

#### 8.2. Exposure Controls

<b>Appropriate Engineering Controls</b>	: Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.
<b>Personal Protective Equipment</b>	: Not generally required. The use of personal protective equipment may be necessary as conditions warrant.
<b>Materials for Protective Clothing</b>	: Chemically resistant materials and fabrics.
<b>Hand Protection</b>	: Wear chemically resistant protective gloves.
<b>Eye Protection</b>	: Chemical goggles or safety glasses.
<b>Respiratory Protection</b>	: Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of vapor or mist are expected to exceed exposure limits.
<b>Other Information</b>	: When using, do not eat, drink or smoke.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. Information on Basic Physical and Chemical Properties

<b>Physical State</b>	: Liquid
<b>Appearance</b>	: Clear.
<b>Odor</b>	: Odorless.
<b>Odor Threshold</b>	: No data available
<b>pH</b>	: Unknown
<b>Relative Evaporation Rate (butylacetate=1)</b>	: No data available
<b>Melting Point</b>	: No data available
<b>Freezing Point</b>	: -8°C (17.6°F)
<b>Boiling Point</b>	: 105 °C (221°F)
<b>Flash Point</b>	: Does not flash
<b>Auto-ignition Temperature</b>	: No data available
<b>Decomposition Temperature</b>	: No data available
<b>Flammability (solid, gas)</b>	: No data available
<b>Vapor Pressure</b>	: No data available
<b>Relative Vapor Density at 20 °C</b>	: No data available
<b>Relative Density</b>	: No data available
<b>Specific Gravity</b>	: Not available
<b>Solubility</b>	: Soluble in water.
<b>Log Pow</b>	: No data available
<b>Log Kow</b>	: No data available
<b>Viscosity, Kinematic</b>	: No data available
<b>Viscosity, Dynamic</b>	: No data available
<b>Explosive Properties</b>	: No data available
<b>Oxidizing Properties</b>	: No data available
<b>Explosive Limits</b>	: Not applicable

#### 9.2. Other Information

No additional information available

### SECTION 10: STABILITY AND REACTIVITY

- 10.1 Reactivity:** Hazardous reactions will not occur under normal conditions.
- 10.2 Chemical Stability:** Stable under normal conditions.
- 10.3 Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

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**10.4 Conditions to Avoid:** Direct sunlight. Extremely high or low temperatures. Incompatible materials.

**10.5 Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers.

**10.6 Hazardous Decomposition Products:** Carbon oxides (CO, CO<sub>2</sub>).

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information On Toxicological Effects

**Acute Toxicity** : Not classified

<b>Water (7732-18-5)</b>	
<b>LC50 Inhalation Rat (ppm)</b>	100000 ppm
<b>1,2-Propylene glycol (57-55-6)</b>	
<b>LD50 Oral Rat</b>	20000 mg/kg
<b>LD50 Dermal Rabbit</b>	20800 mg/kg
<b>Triethylene glycol (112-27-6)</b>	
<b>LD50 Oral Rat</b>	17000 mg/kg
<b>LD50 Dermal Rabbit</b>	> 20 ml/kg

**Skin Corrosion/Irritation:** Not classified

**pH:** unknown

**Serious Eye Damage/Irritation:** Not classified

**pH:** unknown

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** Not classified

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** None expected under normal conditions of use.

**Symptoms/Injuries After Skin Contact:** None expected under normal conditions of use.

**Symptoms/Injuries After Eye Contact:** None expected under normal conditions of use.

**Symptoms/Injuries After Ingestion:** None expected under normal conditions of use.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

<b>1,2-Propylene glycol (57-55-6)</b>	
<b>LC50 Fish 1</b>	51600 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
<b>EC50 Daphnia 1</b>	10000 mg/l (Exposure time: 24 h - Species: Daphnia magna)
<b>EC50 Other Aquatic Organisms 1</b>	19000 mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata)
<b>LC 50 Fish 2</b>	41 (41 - 47) mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
<b>EC50 Daphnia 2</b>	1000 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
<b>Triethylene glycol (112-27-6)</b>	
<b>LC50 Fish 1</b>	56200 - 63700 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
<b>EC50 Daphnia 1</b>	42426 mg/l (Exposure time: 48 h - Species: Daphnia magna)
<b>LC 50 Fish 2</b>	10000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

### 12.2. Persistence and Degradability

<b>Zero Visibility Max Smoke Fluid</b>	
<b>Persistence and Degradability</b>	Not established.

### 12.3. Bioaccumulative Potential

<b>Zero Visibility Max Smoke Fluid</b>	
<b>Bioaccumulative Potential</b>	Not established.
<b>1,2-Propylene glycol (57-55-6)</b>	
<b>BCF fish 1</b>	< 1

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Log Pow	-0.92 (at 25 °C)
<b>Triethylene glycol (112-27-6)</b>	
Log Pow	-1.98 (at 25 °C)

**12.4. Mobility in Soil** No additional information available

**12.5. Other Adverse Effects**

**Other Information** : Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods**

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, and international regulations.

## SECTION 14: TRANSPORT INFORMATION

In Accordance With ICAO/IATA/IMDG/DOT

**14.1. UN Number** Not regulated for transport

**14.2. UN Proper Shipping Name** Not regulated for transport

**14.3. Additional Information**

**Other information** : No supplementary information available.

**Transport by Sea** Not regulated for transport

**Air Transport** Not regulated for transport

## SECTION 15: REGULATORY INFORMATION

**15.1 US Federal Regulations**

**Water (7732-18-5)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

**1,2-Propylene glycol (57-55-6)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

**EPA TSCA Regulatory Flag**

Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

**Triethylene glycol (112-27-6)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

**15.2 US State Regulations**

**1,2-Propylene glycol (57-55-6)**

U.S. - Minnesota - Hazardous Substance List  
U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - Pennsylvania - RTK (Right to Know) List  
U.S. - Texas - Effects Screening Levels - Long Term  
U.S. - Texas - Effects Screening Levels - Short Term

**Triethylene glycol (112-27-6)**

U.S. - Pennsylvania - RTK (Right to Know) List  
U.S. - Texas - Effects Screening Levels - Long Term  
U.S. - Texas - Effects Screening Levels - Short Term

## SECTION 16: OTHER INFORMATION

**Revision date** : 08/14/2023

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

SDS US (GHS HazCom) - US