

# SAFETY DATA SHEET

## 1. Identification

**Product number** 1000009121  
**Product identifier** **TRI-GLO**  
**Revision date** 01-11-2016  
**Company information** MIRANDY PRODUCTS, LLC  
1078 GRAND AVENUE  
SOUTH HEMPSTEAD, NY 11550  
**Company phone** General Assistance 800-327-1835  
**Emergency telephone US** 1-866-836-8855  
**Emergency telephone outside US** 1-952-852-4646  
**Version #** 06  
**Supersedes date** 01-04-2016  
**Recommended use** Not available.  
**Recommended restrictions** None known.

## 2. Hazard(s) identification

**Physical hazards** Flammable aerosols Category 1  
**Health hazards** Serious eye damage/eye irritation Category 2A  
Specific target organ toxicity, single exposure Category 3 narcotic effects  
**OSHA defined hazards** Not classified.

### Label elements



**Signal word** Danger  
**Hazard statement** Extremely flammable aerosol. Causes serious eye irritation. May cause drowsiness or dizziness.  
**Precautionary statement**  
**Prevention** Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid breathing gas. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear eye protection/face protection.  
**Response** If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. If eye irritation persists: Get medical advice/attention.  
**Storage** Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.  
**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.  
**Hazard(s) not otherwise classified (HNOC)** None known.  
**Supplemental information** None.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Ethyl Alcohol		64-17-5	40 - 60
Isopropyl Alcohol		67-63-0	40 - 60

Chemical name	Common name and synonyms	CAS number	%
1,2-Propanediol		57-55-6	2.5 - 10
Carbon Dioxide		124-38-9	2.5 - 10
Other components below reportable levels			0.01 - 0.1

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

#### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.
<b>Most important symptoms/effects, acute and delayed</b>	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Coughing.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers. In the event of fire and/or explosion do not breathe fumes.
<b>General fire hazards</b>	Extremely flammable aerosol.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing gas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

### Precautions for safe handling

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid breathing gas. Avoid contact with eyes. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Level 2 Aerosol.

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Carbon Dioxide (CAS 124-38-9)	PEL	9000 mg/m3
Ethyl Alcohol (CAS 64-17-5)	PEL	5000 ppm 1900 mg/m3 1000 ppm
Isopropyl Alcohol (CAS 67-63-0)	PEL	980 mg/m3 400 ppm

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Carbon Dioxide (CAS 124-38-9)	STEL	30000 ppm
Ethyl Alcohol (CAS 64-17-5)	TWA	5000 ppm
Isopropyl Alcohol (CAS 67-63-0)	STEL	1000 ppm
	TWA	400 ppm

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Carbon Dioxide (CAS 124-38-9)	STEL	54000 mg/m3
	TWA	30000 ppm 9000 mg/m3 5000 ppm
Ethyl Alcohol (CAS 64-17-5)	TWA	1900 mg/m3 1000 ppm
Isopropyl Alcohol (CAS 67-63-0)	STEL	1225 mg/m3
	TWA	500 ppm 980 mg/m3 400 ppm

#### US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
1,2-Propanediol (CAS 57-55-6)	TWA	10 mg/m3	Aerosol.

## Biological limit values

### ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
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Isopropyl Alcohol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*
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\* - For sampling details, please see the source document.

### Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear safety glasses with side shields (or goggles).

#### Skin protection

##### Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

##### Other

Wear suitable protective clothing.

#### Respiratory protection

If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

#### Physical state

Gas.

#### Form

Aerosol.

#### Color

Not available.

#### Odor

Not available.

#### Odor threshold

Not available.

#### pH

Not available.

#### Melting point/freezing point

Not available.

#### Initial boiling point and boiling range

172 °F (77.78 °C) estimated

#### Flash point

53.6 °F (12.0 °C) estimated

#### Evaporation rate

Not available.

#### Flammability (solid, gas)

Not available.

### Upper/lower flammability or explosive limits

#### Flammability limit - lower (%)

2.6 % estimated

#### Flammability limit - upper (%)

12.4 % estimated

#### Explosive limit - lower (%)

Not available.

#### Explosive limit - upper (%)

Not available.

### Vapor pressure

85 mm Hg @72°F estimated

### Vapor density

Not available.

### Relative density

Not available.

### Solubility(ies)

#### Solubility (water)

Not available.

### Partition coefficient (n-octanol/water)

Not available.

### Auto-ignition temperature

820.16 °F (437.87 °C) estimated

### Decomposition temperature

Not available.

Product name: TRI-GLO

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<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.
<b>Specific gravity</b>	0.779 estimated

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Acids. Strong oxidizing agents. Isocyanates. Chlorine.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Coughing.

### Information on toxicological effects

**Acute toxicity** Narcotic effects.

Components	Species	Test Results
1,2-Propanediol (CAS 57-55-6)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg, 24 Hours
<b>Oral</b>		
LD50	Guinea pig	19700 mg/kg
	Mouse	24900 mg/kg
	Rat	22000 mg/kg
Ethyl Alcohol (CAS 64-17-5)		
<b>Acute</b>		
<b>Inhalation</b>		
LC50	Cat	85.41 mg/l, 4.5 Hours 43.68 mg/l, 6 Hours
	Mouse	> 60000 ppm 79.43 mg/l, 134 Minutes
	Rat	> 115.9 mg/l, 4 Hours 51.3 mg/l, 6 Hours
<b>Oral</b>		
LD50	Monkey	6000 mg/kg
	Mouse	10500 ml/kg
	Pig	> 5000 mg/kg
	Rat	10470 mg/kg

Components	Species	Test Results
		7800 ml/kg
Isopropyl Alcohol (CAS 67-63-0)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	16.4 ml/kg, 24 Hours
<b>Inhalation</b>		
LC50	Rat	> 10000 ppm, 6 Hours
<b>Oral</b>		
LD50	Rat	5.84 g/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	
Not listed.	
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	
Not regulated.	
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>	
Not listed.	
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	May cause drowsiness and dizziness.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not likely, due to the form of the product.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species	Test Results
TRI-GLO		
<b>Aquatic</b>		
Algae	IC50	Algae 2172 mg/L, 72 Hours
Crustacea	EC50	Daphnia 12570 mg/L, 48 Hours
Fish	LC50	Fish 11837 mg/L, 96 Hours
Components	Species	Test Results
1,2-Propanediol (CAS 57-55-6)		
<b>Aquatic</b>		
Crustacea	EC50	Daphnia 10000.0001 mg/L, 48 Hours
		Water flea (Daphnia magna) > 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 710 mg/l, 96 hours

Components	Species	Test Results
Ethyl Alcohol (CAS 64-17-5)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Daphnia magna) 7700 - 11200 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) > 100.1 mg/l, 96 hours
Isopropyl Alcohol (CAS 67-63-0)		
<b>Aquatic</b>		
Algae	IC50	Algae 1000.0001 mg/L, 72 Hours
Crustacea	EC50	Daphnia 13299 mg/L, 48 Hours
Fish	LC50	Bluegill (Lepomis macrochirus) > 1400 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential**

**Partition coefficient n-octanol / water (log Kow)**

1,2-Propanediol	-0.92
Ethyl Alcohol	-0.31
Isopropyl Alcohol	0.05

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**13. Disposal considerations**

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

**14. Transport information**

**DOT**

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, flammable, (each not exceeding 1 L capacity)
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.1
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	2.1
<b>Packing group</b>	Not applicable.
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	N82
<b>Packaging exceptions</b>	306
<b>Packaging non bulk</b>	None
<b>Packaging bulk</b>	None

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking and both may be displayed concurrently.

**IATA**

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, flammable

**Transport hazard class(es)****Class** 2.1**Subsidiary risk** -**Label(s)** 2.1**Packing group** Not applicable.**Environmental hazards** No.**ERG Code** 10L**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.**Other information****Passenger and cargo aircraft** Allowed with restrictions.**Cargo aircraft only** Allowed with restrictions.**Packaging Exceptions** LTD QTY**IMDG****UN number** UN1950**UN proper shipping name** AEROSOLS**Transport hazard class(es)****Class** 2.1**Subsidiary risk** -**Label(s)** 2.1**Packing group** Not applicable.**Environmental hazards****Marine pollutant** No.**EmS** F-D, S-U**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.**Packaging Exceptions** LTD QTY**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.**DOT****IATA; IMDG****15. Regulatory information****US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.



**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
 Delayed Hazard - No  
 Fire Hazard - Yes  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**US state regulations****US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Isopropyl Alcohol (CAS 67-63-0)

**US. Massachusetts RTK - Substance List**

Carbon Dioxide (CAS 124-38-9)

Ethyl Alcohol (CAS 64-17-5)

Isopropyl Alcohol (CAS 67-63-0)

**US. New Jersey Worker and Community Right-to-Know Act**

1,2-Propanediol (CAS 57-55-6)

Carbon Dioxide (CAS 124-38-9)

Ethyl Alcohol (CAS 64-17-5)

Isopropyl Alcohol (CAS 67-63-0)

**US. Pennsylvania Worker and Community Right-to-Know Law**

1,2-Propanediol (CAS 57-55-6)

Carbon Dioxide (CAS 124-38-9)

Ethyl Alcohol (CAS 64-17-5)

Isopropyl Alcohol (CAS 67-63-0)

**US. Rhode Island RTK**

Isopropyl Alcohol (CAS 67-63-0)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

<b>Issue date</b>	02-11-2015
<b>Revision date</b>	01-11-2016
<b>Version #</b>	06
<b>Disclaimer</b>	We cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.
<b>Revision information</b>	Product and Company Identification: Alternate Trade Names