

**DIPROPYLENE GLYCOL**

Version 1.1

Revision: 02-08-2018

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**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : DIPROPYLENE GLYCOL  
CAS Number: 25265-71-8  
Chemical characterization : Glycols  
Chemical Name : 1,1-Oxydi-2-Propanol  
Synonyms : Dipropylene Glycol, DPG, 2,2-Dihydroxyisopropyl Ether,  
Methyl-2(Methyl-2) Oxybispropanol

Identified uses : Monomer; Intermediate; Functional Fluids

Prohibited uses : Theater fogs; Artificial smoke

Company : GreenChem Industries  
222 Clematis St, Suite 207  
West Palm Beach, FL  
33401 USA  
561-659-2236

Emergency telephone : CHEMTREC USA800-424-9300

E-mail address info@greenchemindustries.com

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**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Not classified as hazardous according to OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

**Label elements**

Not classified as hazardous according to OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

**Other hazards**

No additional information available.

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**3. Composition/information on ingredients Substances****Ingredients**

Chemical Name	CAS-No. EC-No.	<u>Weight %</u>	Component Type
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Dipropylene Glycol	25265-71-8	>= 99.5 %	A
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Key:  
(A) Substance

**SECTION 4. FIRST AID MEASURES****First aid procedures**

General advice	: May cause irritation of the eyes, skin and mucous membranes. Always observe self-protection methods Move out of dangerous area. Remove contaminated shoes and clothing. Show this material safety data sheet to the doctor in attendance.
If inhaled	: Not expected to present a significant inhalation hazard under anticipated conditions of normal use. Avoid inhalation of hot vapors or extremely high concentrations of aerosols.  Remove to fresh air. In the case of inhalation of aerosol/mist consult a physician if necessary.
In case of skin contact	: Wash skin thoroughly with mild soap and water.
In case of eye contact	: Flush eyes with water thoroughly and continuously for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, consult a specialist.
If swallowed	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.
<b>Notes to physician</b>	
Symptoms	: High doses may cause CNS depression (fatigue, dizziness and possibly loss of concentration, with collapse, coma and death in cases of severe over-exposure).
Hazards	: This product is of low acute toxicity. May cause irritation of the eyes, skin and mucous membranes. Hot vapors may cause lung damage.
Treatment	: Treat symptomatically. Treatment of overexposure should be directed at the control of

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symptoms and the clinical condition of the patient.

**SECTION 5. FIRE-FIGHTING MEASURES****Flammable properties**

Flash point	: 262 - 270 °F (128 - 132 °C) at 988.80 hPa (741.66 mm Hg)
Autoignition temperature	: 630 °F (332 °C) at 989.60 - 1001.80 hPa (742.26 - 751.41 mm Hg)
Lower explosion limit	: No Data Available.
Upper explosion limit	: No Data Available.

**Fire fighting**

Suitable extinguishing media	: SMALL FIRE: Use dry chemicals, CO2, water spray or alcohol-resistant foam. LARGE FIRE: Use water spray, water fog or alcohol-resistant foam.
Unsuitable extinguishing media	: Do not use solid water stream.

**Protective equipment and precautions for firefighters**

Specific hazards during fire fighting	: Heat from fire can generate flammable vapor. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Vapors may be heavier than air. May travel long distances along the ground before igniting and flashing back to vapor source. Fine sprays/mists may be combustible at temperatures below normal flash point. Fight fire from a safe distance/protected location. Heat may build enough pressure to rupture closed containers/spreading fire/increasing risk of burns/injuries. Use water spray/fog for cooling. Avoid frothing/steam explosion. Burning liquid may float on water. Although water soluble, may not be practical to extinguish fire by water dilution. Notify authorities immediately if liquid enters sewer/public waters.
Special protective equipment for fire-fighters	: Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighter's protective clothing will only provide limited protection.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions : Use personal protective equipment.  
Clean-up to be performed only by trained and properly equipped personnel.
- Environmental precautions : Try to prevent the material from entering drains or water courses.
- Methods for containment /  
Methods for cleaning up : Extinguish all ignition sources.  
Stop release; prevent flow to sewers/public waters.  
Notify fire and environmental authorities.  
Impound/recover large land spill; soak up small spill with inert solids.  
Soak up small spills with inert solids.  
Use suitable disposal containers.  
On water, material is soluble and may float or sink.  
Contain/collect rapidly to minimize dispersion.  
Disperse residue to reduce aquatic harm.  
Report per regulatory requirements.
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**SECTION 7. HANDLING AND STORAGE****Handling**

- Advice on safe handling : Handle empty containers with care - residue can burn if heated.  
Empty containers should be thoroughly rinsed with copious amounts of clean water.  
The rinse water can be used for makeup water for any necessary dilution of the concentrated product before use, or it can be properly discarded.
- Advice on protection against fire and explosion : Normal measures for preventive fire protection.

**Storage**

- Requirements for storage areas and containers : Keep container tightly closed when not in use.  
Protect from moisture.  
Store away from heat.  
Material can attack some forms of plastics.  
Do not store together with oxidizing and self-igniting products.
- Advice on common storage : Carbon/Mild steel with suitable internal coating, or stainless steel
- Other data : No decomposition if stored and applied as directed.
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**8. Exposure controls/personal protection Control parameters**

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**Ingredients with workplace control parameters**

Consult local authorities for acceptable exposure limits.

**Exposure controls****Engineering measures**

No special ventilation is recommended under anticipated conditions of normal use beyond that needed for normal comfort control.

**Personal protective equipment**

- Respiratory protection : No special respiratory protection is recommended under anticipated conditions of normal use with adequate ventilation. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Hand protection : Not normally considered a skin hazard.  
Use chemical resistant gloves appropriate to conditions of use.  
Wear chemical resistant gloves such as:  
Nitrile rubber  
Latex
- Eye and face protection : Safety glasses with side-shields  
Use splash goggles when eye contact due to splashing or spraying liquid is possible.
- Skin and body protection : No special clothing/skin protection equipment is recommended under normal conditions of anticipated use. Where use can result in skin contact, practice good personal hygiene.
- Hygiene measures : Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use.  
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices.  
Wash hands before eating, drinking, smoking, or using toilet facilities.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Physical state : liquid at 68 °F (20 °C)

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Color : Clear, colorless.  
Odor : odorless

**Safety data**

Flash point : 262 - 270 °F (128 - 132 °C)  
at 988.80 hPa (741.66 mm Hg)

Lower explosion limit : No Data Available.  
Upper explosion limit : No Data Available.  
Flammability (solid, gas) : Not applicable  
Oxidizing properties : The substance or mixture is not classified as oxidizing.  
Autoignition temperature : 630 °F (332 °C)  
at 989.60 - 1001.80 hPa (742.26 - 751.41 mm Hg)

Molecular weight : 134.17 g/mol  
Decomposition temperature : not determined

pH : 7.4 (as aqueous solution)

Melting point/range : < -4 °F (-20 °C)

Boiling point/boiling range : 441 °F (227 °C)  
at 983.60 hPa (737.76 mm Hg)

Vapor pressure : 0.013 hPa (0.010 mm Hg)  
at 77 °F (25 °C)

Density : 1.02 g/cm<sup>3</sup>  
at 68 °F (20 °C)

Water solubility : Miscible in water.

Partition coefficient: n-octanol/water : log Pow: -0.462  
at 71.1 °F (21.7 °C)

Viscosity, kinematic : 118 mm<sup>2</sup>/s  
at 68 °F (20 °C)  
  
32 mm<sup>2</sup>/s  
at 104 °F (40 °C)

Relative vapor density : ~4.6  
(Air = 1.0 at 15 - 20°C/59 - 68°F)

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Surface tension : 71.4 mN/m  
1.01g/l  
at 72 °F (22 °C)

Explosive properties : Not explosive

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**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Stable under recommended storage conditions.

Chemical stability : Stable under recommended storage conditions.

Conditions to avoid : High temperatures, oxidizing conditions.

Materials to avoid : Strong acids  
Isocyanates.  
Strong oxidizing agents.

Hazardous decomposition products : Carbon Monoxide and other toxic vapors.  
Thermal decomposition : Thermal decomposition may produce carbon monoxide and other toxic vapors.

Hazardous reactions : Not expected to occur.  
This material is stable when properly handled and stored.

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**SECTION 11. TOXICOLOGICAL INFORMATION**

**Product Summary** : The below given information is based on the assessment of the product including impurities.

**Acute toxicity**

**Acute oral toxicity** : Based on acute toxicity values, not classified.  
Ingestion of high doses may cause discomfort and irritation of the gastrointestinal tract and CNS depression (fatigue, dizziness and possibly loss of concentration, with collapse, coma and death in cases of severe over-exposure).

: LD50 Oral: > 5,000 mg/kg  
Species: Rat

**Acute inhalation toxicity** : Based on acute toxicity values, not classified.

: LC50 (Inhl): > 2.34 mg/l  
Exposure time: 4 HOURS  
Species: Rat

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<b>Acute dermal toxicity</b>	: Based on acute toxicity values, not classified. : LD50 Dermal: > 5,000 mg/kg Species: Rabbit
<b>Skin corrosion/irritation</b>	: Based on skin irritation values, not classified. May cause slight transient skin irritation.
<b>Serious eye damage/eye irritation</b>	: Based on eye irritation values, not classified.
<b>Respiratory or skin sensitization</b>	: Respiratory sensitization Not classified No study available. : Skin sensitization Not classified No adverse effect observed.
<b>Chronic toxicity</b>	
Carcinogenicity	: Not classified No adverse effect observed.
Germ cell mutagenicity	: Not classified No adverse effect observed.
<b>Reproductive toxicity</b>	
Effects on fertility / Effects on or via lactation	: Not classified Male rats and female mice ingesting multi-gram quantities of dipropylene glycol for 90-days exhibited changes in testis and estrous cycle that appeared secondary to clinical- and systemic toxicity, debilitation and death. Data available on related homologues suggest it is unlikely to affect fertility or reproduction at lower exposures that do not cause morbidity or mortality.
Effects on Development	: Not classified No adverse effect observed.
<b>Target Organ Systemic Toxicant - Single exposure</b>	: Based on single exposure toxicity values, not classified.
<b>Target Organ Systemic</b>	: Based on repeated exposure toxicity values, not classified.



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**Toxicant - Repeated exposure**

**Aspiration hazard** : Based on physico-chemical values or lack of human evidence, not classified.

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**12. ECOLOGICAL INFORMATION****Ecotoxicology Assessment**

**Acute aquatic toxicity** : Based on acute aquatic toxicity values, not classified.  
**Chronic aquatic toxicity** : Not classified, based on readily biodegradability and low acute toxicity.

**Toxicity to fish** :  
Low acute toxicity to fish  
Data for close chemical analog.

**Toxicity to daphnia and other aquatic invertebrates** : Low acute toxicity to aquatic invertebrates.

**Toxicity to algae** : Low toxicity to algae.

**Toxicity to bacteria** : Low toxicity to sewage microbes.

**Toxicity to fish (Chronic toxicity)** : QSAR (Quantitative structure-activity relationship) based calculation predicts low chronic toxicity.

**Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)** : QSAR (Quantitative structure-activity relationship) based calculation predicts low chronic toxicity.

**Persistence and degradability**

**Biodegradability** : Rapidly degradable.  
: 64.5 - 93.4 %  
(After 28 days in a ready biodegradability test)  
(freshwater)  
: Partially biodegradable.  
: 17.3 - 23.6 %  
(62 - 64 day ready biodegradability test) (seawater)

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**Bioaccumulative potential**

**Bioaccumulation** : This material is not expected to bioaccumulate.  
: Bioconcentration factor (BCF): 0.3 - 4.6  
(QSAR calculated value)

**Mobility in soil**

**Surface tension** : 71.4 mN/m  
1.01g/l  
at 22 °C

**Distribution among environmental compartments** : Stability in soil  
no data available

: Stability in water  
no data available

**Additional advice** : No additional information available.  
**Environmental fate and pathways**

**Results of PBT and vPvB assessment**

Not applicable.

**Other adverse effects**

**Additional ecological information** : No additional information available.

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**SECTION 13. DISPOSAL CONSIDERATIONS**

Further information : Comply with federal, state, or local regulations for disposal.  
Landfill solids at permitted sites.  
Burn concentrated liquids, diluting with clean, low viscosity fuel.  
Avoid flameouts and assure that emissions comply with all applicable standards/regulations.  
Dilute aqueous waste may biodegrade.  
Assure effluent complies with applicable regulations.

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**SECTION 14. TRANSPORT INFORMATION**

Not regulated for transport

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**SECTION 15. REGULATORY INFORMATION**

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If identified components of this product are listed under the TSCA 12(b) Export Notification rule, they will be listed below.

**SARA 302/304**

This product contains no known chemicals regulated under SARA 302/304.

**SARA 311/312**

Based upon available information, this material is not classified as a health and/or physical hazard according to Section 311 & 312.

**SARA 313**

This product contains no known chemicals regulated under SARA 313.

**State Reporting**

This material is not known to contain a chemical substance known to the State of California to cause cancer, reproductive, or developmental toxicity under California Proposition 65. However, GreenChem has not tested for the presence of listed chemical substances.

This product contains no known chemicals regulated by New Jersey's Worker and Community Right to Know Act.

No components are subject to the Massachusetts Right to Know Act.

This product contains the following chemicals regulated by Pennsylvania's Right to Know Act:  
25265-71-8 Dipropylene Glycol

**Other international regulations****Global Inventory Status**

The ingredients of this product are compliant with the following chemical inventory requirements or exemptions.

\*Additional Explanatory Status Statements follow the table, as necessary.

Country/Region	Inventory	Status Description
Australia	AICS	Compliant
Canada	DSL	Compliant
China	IECSC	Compliant
Europe	REACH	See REACH Compliance Statement
Japan	ENCS	Compliant
Korea	KECI	Compliant
New Zealand	NZIoC	Compliant
Philippines	PICCS	Compliant
United States of America	TSCA	Compliant
Taiwan	TCSCA	Compliant

**REACH status**

If the product has been purchased from any company of the GreenChem group of companies registered in the European Union, we confirm that the chemical substance in this product has been

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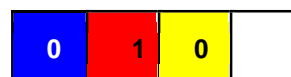
*pre-registered or, where required under REACh, registered, and that we have the intention to proceed with any required registration in accordance with the deadlines set forth in REACh. (Regulation (EU) No. 1907/2006)*

Contact [info@greenchemindustries.com](mailto:info@greenchemindustries.com) for additional global inventory information.

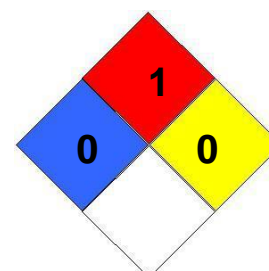
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**SECTION 16. OTHER INFORMATION****Further information****HMIS Classification**

: Health Hazard: 0  
Flammability: 1  
Physical hazards: 0

**NFPA Classification**

: Health Hazard: 0  
Fire Hazard: 1  
Instability: 0

**Material safety datasheet sections which have been updated:**

Revised Section(s): 1 11 15 June 3 2015

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Information is correct to the best of our knowledge at the date of the SDS publication.

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