

SILVER FERN CHEMICAL, INC.



SAFETY DATA SHEET

MP DIOL GLYCOL

Version 1.1 Revision Date 22.10.2019

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Trade name : MPDIOL GLYCOL
CAS Number: : 2163-42-0
Chemical characterization : Glycols
Chemical name : 2-Methyl-1,3-Propanediol
Synonyms : MPD

Identified uses : Monomer; Intermediate; Functional Fluids

Prohibited uses : Aerosol applications such as theater fogs, linen sprays, pepper sprays, air sanitizers

Company Address

Silver Fern Chemical, Inc.
2226 Queen Anne Ave. North, Suite C
Seattle, WA 98109, USA
Phone: 1-866-282-3384

Company Telephone

Customer Service:
1-866-282-3384
info@silverfernchemical.com

Emergency telephone number:

Infotrac
USA & Canada: 1-800-535-5053
Outside USA & Canada: 1-352-323-3500

2. HAZARDS IDENTIFICATION

GHS-Classification

Not a dangerous substance according to GHS.

GHS-Labeling

Not a dangerous substance according to GHS.

Other hazards

No additional information available.

3. COMPOSITION/INFORMATION ON

INGREDIENTS Substances

Components

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Chemical name	CAS-No. EC-No.	<u>Weight %</u>	Component Type
2-Methyl-1,3-Propanediol	2163-42-0	>= 98.0 %	A

Key:
(A) Substance

4. FIRST AID MEASURES

General advice : Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid.
Consult a physician/doctor if necessary.
Do not leave the victim unattended.

If inhaled : If overcome by exposure, remove victim to fresh air immediately.
Call a physician.
Give artificial respiration if not breathing.

In case of skin contact : Remove contaminated clothing and wash skin with plenty of soap and water.

In case of eye contact : Not expected to present a significant eye contact hazard under anticipated conditions of normal use.
Flush eyes thoroughly with water for several minutes and seek medical attention if discomfort persists.

If swallowed : Ingestion unlikely.
However, if ingested, obtain emergency medical attention.

Notes to physician

Hazards : May be harmful in contact with skin.

Treatment : Treat symptomatically.
Do NOT induce vomiting.

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5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : SMALL FIRE: Use dry chemical, CO₂, water spray or regular foam. LARGE FIRE: Use water spray, water fog or regular foam. Do not use straight streams.
- Unsuitable extinguishing media : Do not use solid water stream - may spread fire.
- Specific hazards during fire fighting : Heat from fire can generate flammable vapor. Vapors may be heavier than air. Fine sprays/mists may be combustible at temperatures below normal flash point. Move containers from fire area if it can be done without risk. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Always stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.
- Special protective equipment for fire-fighters : Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighter's protective clothing will only provide limited protection.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Use personal protective equipment. Evacuate personnel to safe areas. Ensure adequate ventilation. Eliminate all sources of ignition.
- Environmental precautions : If necessary, all contaminated waste water must be treated in a municipal or industrial wastewater treatment plant before release to surface water.
- Chemical removal by air and water pollution control devices must meet the minimum efficiency requirements needed to reduce exposures to an acceptable level.
- Methods for containment / Methods for cleaning up : Eliminate all sources of ignition. All equipment used when handling this product must be grounded.

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Do not touch or walk through spilled material.
Stop leak if you can do it without risk.
Prevent entry into waterways, sewers, basements or confined areas.
A vapor suppressing foam may be used to reduce vapors.
Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
Use clean non-sparking tools to collect absorbed material.
Dike large spills and place materials in salvage containers.
Water spray may reduce vapor; but may not prevent ignition in closed spaces.

7. Handling and storage**Precautions for safe handling**

Advice on safe handling : Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Handle with care.
Keep container tightly closed when not in use.
If desired, the material may be warmed (25 - 30°C/77 - 86°F) to enhance the products flow.
Use caution if applying heat localized overheating may cause possible product degradation and over-pressurize containers. 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.
Isolate, vent, drain, wash and purge systems or equipment before maintenance or repair.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store locked up.
If desired, store in a warm location (25 - 30°C/77 - 86°F) to assist in emptying containers.
Keep floor around container free of spilled product to prevent highly viscous material from sticking to and contaminating shoes.

Specific end use(s)

: See Section 1.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Ingredients with workplace control parameters**

Consult local authorities for acceptable exposure limits.

Exposure controls**Engineering measures**

Use only in well ventilated areas.

At elevated temperatures, special ventilation may be required even if the flash point has not been exceeded.

Flammable mists or aerosols can be generated below the flash point of high boiling liquids.

Personal protective equipment

- Respiratory protection : No occupational exposure limit(s) have been established for this material or its components.
Where exposure through inhalation may occur from use, approved respiratory protection equipment is recommended.
- Hand protection : Not normally considered a skin hazard.
Wear chemical resistant gloves such as:
Latex
or
Nitrile.
- Eye and face protection : Even though no eye contact is expected under anticipated conditions of normal use, appropriate eye protection should be worn when handling this material.
- Skin and body protection : Where use can result in skin contact, practice good personal hygiene.
Skin should be washed after contact.
The equipment must be cleaned thoroughly after each use.
- 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.
Wash clothing frequently.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Color	: Clear, colorless.
Odor	: Little or no odor.
Odor Threshold	: no data available
Flash point	: ~ 127 °C Method: (PMCC)
Lower explosion limit	: No Data Available.
Upper explosion limit	: No Data Available.
Flammability (solid, gas)	: Not applicable
Oxidizing properties	: Not considered an oxidizing agent.
Autoignition temperature	: 380 °C at 1,013 hPa
Decomposition temperature	: not determined
pH	: ~ 6.5
Melting point/range	: -54 °C at 1,013 hPa
Boiling point/boiling range	: 212 °C at 1,013 hPa
Vapor pressure	: 0.028 hPa at 25 °C
Density	: 1.01 g/cm ³ at 20 °C
Water solubility	: Miscible
Partition coefficient: n-octanol/water	: log Pow: -0.6 at 20 °C
Viscosity, kinematic	: 66.6 mm ² /s at 40 °C
Relative vapor density	: 3.2

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(Air = 1.0 at 15 - 20°C/59 - 68° F)

Surface tension	:	72.2 mN/m at 20 °C
Explosive properties	:	Not explosive
Other Information	:	No additional information available.

10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under recommended storage conditions.
Hazardous reactions	:	Not expected to occur.
Conditions to avoid	:	Heat, sparks, open flame, and other ignition sources.
Materials to avoid	:	Strong oxidizing agents.
Hazardous decomposition products	:	Carbon monoxide (based on the chemical structure).
Thermal decomposition	:	No Data Available.

11. TOXICOLOGICAL INFORMATION**Acute toxicity****Acute oral toxicity** : Based on acute toxicity values, not classified.: LD50 (Oral): > 5,000 mg/kg
Species: Rat**Acute inhalation toxicity** : Based on acute toxicity values, not classified.
Exposure to vapor or aerosol may result in effects on the respiratory tract.: LC50: > 5.1 mg/l
Exposure time: 4 HOURS
Species: Rat

Method: Aerosol

Acute dermal toxicity : LD50: > 2,000 mg/kg
Species: Rabbit

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Skin corrosion/irritation	: Based on skin irritation values, not classified.
Serious eye damage/eye irritation	: Based on eye irritation values, not classified.
Respiratory or skin sensitization	: Skin sensitization Not classified No adverse effect observed. : Respiratory sensitization Not classified No study available.
Chronic toxicity	
Carcinogenicity	: Not classified
Germ cell mutagenicity	: Not classified
Reproductive toxicity	
Effects on fertility /	: Not classified
Effects on or via lactation	
Effects on Development	: Not classified
Target Organ Systemic Toxicant - Single exposure	: Based on single exposure toxicity values, not classified.
Target Organ Systemic Toxicant - Repeated exposure	: Based on repeated exposure toxicity values, not classified.
Aspiration hazard	: Based on physico-chemical values or lack of human evidence, not classified.

12. Ecological information**Ecotoxicology Assessment**

Short-term (acute) aquatic hazard	: Based on acute aquatic toxicity values, not classified.
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Long-term (chronic) aquatic hazard	: Not classified, based on readily biodegradability and low acute toxicity.
Toxicity to fish	: Low acute toxicity to fish
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)	: No study available.
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: Low chronic toxicity to aquatic invertebrates.
Persistence and degradability	: Rapidly degradable.
Biodegradability	: Biodegradation: 84 % (After 28 days in a ready biodegradability test)
Bioaccumulative potential	
Bioaccumulation	: This material is not expected to bioaccumulate.
Mobility in soil	
Distribution among environmental compartments	: Type: Stability in soil Low potential for soil adsorption expected
	: Type: Stability in water Not expected to hydrolyse in water.
Other adverse effects	
Environmental fate and pathways	: No additional information available.
Other information	
Additional ecological information	: No additional information available.

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13. Disposal considerations**Waste treatment methods**

Product : Contaminated product, soil, water, container residues and spill cleanup materials should not be designated as hazardous wastes.
 Dilute aqueous waste may biodegrade.
 Avoid overloading/poisoning plant biomass.
 Comply with applicable local, state or international regulations concerning solid or hazardous waste disposal and/or container disposal.

14. TRANSPORT INFORMATION

Not regulated for transport

BLG (MARPOL Annex II)

Description of the goods : 2-METHYL-1,3-PROPANEDIOL
 Pollution category : Z
 Ship type : 3

IATA : Not Supported

15. REGULATORY INFORMATION**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
Japan	ENCS	Compliant
Korea	KECI	Compliant
New Zealand	NZIoC	Compliant
Philippines	PICCS	Compliant
United States of America	TSCA	See TSCA Compliance Statement

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Taiwan	TCSCA	Compliant
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TSCA STATUS:..... The components of this product are listed and designated as "active" on the TSCA Inventory

16. OTHER INFORMATION**Material safety datasheet sections which have been updated:**

Revised Section(s): 15 16

DISCLAIMER OF RESPONSIBILITY

The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable

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End of Material Safety Data Sheet