



Safety Data Sheet

The Dow Chemical Company

Product Name: PROGLYDE* DMM GLYCOL DIETHER

Revision Date: 2011/04/12

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The Dow Chemical Company encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

Section 1. Identification of the substance/preparation and of the company/undertaking

1.1 Product identifiers

Product Name

PROGLYDE* DMM GLYCOL DIETHER

Chemical Name: Dipropylene glycol dimethyl ether

CAS-No. 111109-77-4

EC-No. 404-640-5

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Industrial solvent for cleaner and coating formulations. For industrial use. REACH Registration Number: 01-0000015420-83

1.3 Details of the supplier of the safety data sheet

COMPANY IDENTIFICATION

The Dow Chemical Company
2030 Willard H. Dow Center
48674 Midland, MI
USA

Customer Information Number:

800-258-2436

SDSQuestion@dow.com

1.4 EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact:

989-636-4400

Local Emergency Contact:

00 31 115 69 4982

Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification - REGULATION (EC) No 1272/2008

This product is not classified as dangerous according to EC criteria.

®(TM)*Trademark

Classification according to EU Directives 67/548/EEC or 1999/45/EC

This product is not classified as dangerous according to EC criteria.

2.2 Label elements**Labelling - REGULATION (EC) No 1272/2008**

This product is not classified as dangerous according to EC criteria.

2.3 Other Hazards

No information available.

Section 3. Composition/information on ingredients
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3.1 Substance

This product is a substance.

CAS-No. / EC-No. / REACH No. Index	Amount	Component	Classification: REGULATION (EC) No 1272/2008
CAS-No. 111109-77-4 EC-No. 404-640-5	— > 99.0 %	Dipropylene glycol dimethyl ether#	Not classified

CAS-No. / EC-No. / Index	Amount	Component	Classification: 67/548/EEC
CAS-No. 111109-77-4 EC-No. 404-640-5	> 99.0 %	Dipropylene glycol dimethyl ether#	Not classified.

Substance(s) with an Occupational Exposure Limit.

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4. First-aid measures

4.1 Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air; if effects occur, consult a physician.

Skin Contact: Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

Eye Contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

4.2 Most important symptoms and effects, both acute and delayed

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), no additional symptoms and effects are anticipated.

4.3 Indication of immediate medical attention and special treatment needed

No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

Section 5. Fire Fighting Measures

5.1 Extinguishing Media

Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

5.2 Special hazards arising from the substance or mixture

Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

5.3 Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures: Isolate area. Refer to Section 7, Handling, for additional precautionary measures. Keep unnecessary and unprotected personnel from entering the area. No smoking in area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

6.2 Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

6.3 Methods and materials for containment and cleaning up: Small spills: Absorb with materials such as: Sand. Vermiculite. Collect in suitable and properly labeled containers. Large spills: Contain spilled material if possible. Pump into suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

Section 7. Handling and Storage

7.1 Precautions for safe handling

Handling

General Handling: Avoid contact with eyes. Wash thoroughly after handling. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion. Keep away from heat, sparks and flame. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Other Precautions: Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Store in the following material(s): Carbon steel. Stainless steel. Phenolic lined steel drums. Do not store in: Aluminum. Copper. Galvanized iron. Galvanized steel. See Section 10 for more specific information.

Storage Period:, Bulk 6 Months

Steel drums. 24 Months

7.3 Specific end uses

See the technical data sheet on this product for further information.

Section 8. Exposure Controls / Personal Protection

8.1 Control parameters

Exposure Limits

Component	List	Type	Value
Dipropylene glycol dimethyl ether	Dow IHG	TWA	20 ppm

8.2 Exposure controls

Personal Protection

Eye/Face Protection: Use safety glasses (with side shields). Safety glasses (with side shields) should be consistent with EN 166 or equivalent.

Skin Protection: Wear clean, body-covering clothing.

Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Butyl rubber. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. **NOTICE:** The selection of a specific glove for a particular application and duration of use in a workplace

should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. Use the following CE approved air-purifying respirator: Organic vapor cartridge, type A (boiling point >65 °C)

Ingestion: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls

Ventilation: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.

Section 9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance

Physical State	Liquid.
Color	Colorless
Odor	Mild
Odor Threshold	No test data available
pH	No test data available
Melting Point	Not determined
Freezing Point	< -71 °C <i>Literature</i>
Boiling Point (760 mmHg)	175 °C <i>Literature</i> .
Flash Point - Closed Cup	65 °C <i>Setaflash Closed Cup ASTM D3278</i>
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	Not applicable to liquids
Flammable Limits In Air	Lower: 0.85 %(V) <i>Literature</i> Calculated Upper: Not determined
Vapor Pressure	0.07 kPa @ 20 °C <i>Literature</i>
Vapor Density (air = 1)	5.59 <i>Literature</i>
Specific Gravity (H₂O = 1)	0.904 20 °C/20 °C <i>Literature</i>
Solubility in water (by weight)	526 g/l @ 20 °C
Partition coefficient, n-octanol/water (log Pow)	0.42 <i>Measured</i>
Autoignition Temperature	165 °C <i>Literature</i>
Decomposition Temperature	No test data available
Dynamic Viscosity	1 mPa.s @ 25 °C <i>Literature</i>
Kinematic Viscosity	1.14 mm ² /s @ 25 °C
Explosive properties	Not explosive
Oxidizing properties	No

9.2 Other information

Liquid Density	0.90 g/cm ³ @ 20 °C <i>Literature</i>
Henry's Law Constant (H)	3.27E-07 atm*m ³ /mole Estimated.

Section 10. Stability and Reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under recommended storage conditions. See Storage, Section 7.

10.3 Possibility of hazardous reactions

Polymerization will not occur.

10.4 Conditions to Avoid: Do not distill to dryness. Product can oxidize at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

10.5 Incompatible Materials: Avoid contact with: Strong acids. Strong bases. Strong oxidizers.

10.6 Hazardous decomposition products

Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aldehydes. Ketones. Organic acids.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity

Ingestion

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

LD50, Rat 3,300 mg/kg

Aspiration hazard

Based on physical properties, not likely to be an aspiration hazard.

Dermal

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

LD50, Rat > 2,000 mg/kg

Inhalation

Prolonged exposure is not expected to cause adverse effects. Based on the available data, narcotic effects were not observed. Based on the available data, respiratory irritation was not observed.

LC50, 4 h, Rat > 5.25 mg/l

Eye damage/eye irritation

May cause slight eye irritation. Corneal injury is unlikely.

Skin corrosion/irritation

Prolonged exposure not likely to cause significant skin irritation.

Sensitization

Skin

Skin contact may cause an allergic skin reaction in a small proportion of individuals.

Respiratory

No relevant data found.

Repeated Dose Toxicity

In animals, effects have been reported on the following organs: Adrenal gland. Kidney. Liver.

Chronic Toxicity and Carcinogenicity

No relevant data found.

Developmental Toxicity

Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

Reproductive Toxicity

In animal studies, did not interfere with reproduction.

Genetic Toxicology

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

Section 12. Ecological Information

12.1 Toxicity

Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species).

Fish Acute & Prolonged Toxicity

LC50, guppy (*Poecilia reticulata*), static, 96 h: > 1,000 mg/l

NOEC sublethal, rainbow trout (*Oncorhynchus mykiss*), flow-through, 14 h: > 300 mg/l

Aquatic Invertebrate Acute Toxicity

LC50, water flea *Daphnia magna*, static, 24 h, immobilization: > 1,000 mg/l

Aquatic Invertebrates Chronic Toxicity Value

water flea *Daphnia magna*, static renewal, 21 d, number of offspring, NOEC: 10 mg/l, LOEC: 32 mg/l

Toxicity to Soil Dwelling Organisms

LC50, Earthworm *Eisenia foetida*, adult, 14 d: > 1,000 mg/kg

12.2 Persistence and Degradability

Material is inherently biodegradable (reaches > 20% biodegradation in OECD test(s) for inherent biodegradability). Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

OECD Biodegradation Tests:

Biodegradation	Exposure Time	Method	10 Day Window
18 - 32 %	28 d	OECD 301B Test	fail
25 %	28 d	OECD 302B Test	Not applicable

12.3 Bioaccumulative potential

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient, n-octanol/water (log Pow): 0.42 Measured

Bioconcentration Factor (BCF): 4; rainbow trout (*Oncorhynchus mykiss*); Measured

12.4 Mobility in soil

Mobility in soil: Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process., Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient, soil organic carbon/water (Koc): 2 Estimated.

Henry's Law Constant (H): 3.27E-07 atm*m3/mole Estimated.

12.5 Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

This substance is not in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

Section 13. Disposal Considerations

13.1 Waste treatment methods

Any disposal practice must be in compliance with all local and national laws and regulations. Do not dump into any sewers, on the ground, or into any body of water.

Section 14. Transport Information

ROAD & RAIL

NOT REGULATED

OCEAN

NOT REGULATED

AIR

NOT REGULATED

Environmental Hazard: No

INLAND WATERWAYS

Proper Shipping Name: SUBSTANCES with a flashpoint above 61°C but not more than 100°C, N.O.S.

Hazard Class: 9 ID Number: ID9003

Environmental Hazard: No

Section 15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

European Inventory of Existing Commercial Chemical Substances (EINECS)

This substance is listed on ELINCS.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

Section 16. Other Information

Hazard statement in the composition section

Revision

Identification Number: 50659 / 1001 / Issue Date 2011/04/12 / Version: 4.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

The Dow Chemical Company urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ

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