

# Safety Data Sheet



## SECTION 1: Identification of the substance/mixture and the company/undertaking

### 1.1 Production identifiers

Product name : GLYCOL ETHER DPM  
Brand : CJ Chemicals LLC  
CAS-No. : 34590-94-8

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

Identified uses : Laboratory chemicals, synthesis of substances

### 1.3 Details of the supplier of the safety data sheet

Company : CJ Chemicals LLC  
3469 E Grand River Rd #112  
Howell, MI 48843  
United States

Telephone : +1 (888) 274-1044

### 1.4 Emergency Telephone

Emergency Phone # : 1-800-424-9300 CHEMTREC (USA)  
1-703-527-3887 CHEMTREC (international) 24 hours/day; 7 days/week

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### GHS-US classification

Flammable liquids Category 4	H227	Combustible liquid
Specific target organ toxicity (single exposure) Category 3	H335	May cause respiratory irritation

Full text of H statements : see section 16

### 2.2. GHS Label elements, including precautionary statements

#### GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H227 - Combustible liquid  
H335 - May cause respiratory irritation

Precautionary statements (GHS-US) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
P271 - Use only outdoors or in a well-ventilated area  
P280 - Wear protective gloves, eye protection, face protection  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
P312 - Call a poison center/doctor if you feel unwell  
P370+P378 - In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed  
P403+P235 - Store in a well-ventilated place. Keep cool  
P405 - Store locked up  
P501 - Dispose of contents/container to an approved waste disposal plant.

# Glycol Ether DPM

## Safety Data Sheet

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

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Name	Product identifier	%	GHS-US classification
Dipropylene Glycol Monomethyl Ether (Main constituent)	(CAS-No.) 34590-94-8	>99.0	Flam. Liq. 4, H227 STOT SE 3, H335

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Consult a physician/ doctor if necessary. Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. Show this material safety data sheet to the doctor in attendance.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If eye irritation persists, consult a specialist.
First-aid measures after ingestion	: This material may be a slight health hazard if ingested in large quantities. If large quantity swallowed, give lukewarm water (pint / ½ liter) if victim conscious and alert. Do NOT induce vomiting. Risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.
Chronic symptoms	: No effects known.

### 4.2. Notes to physician

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	: May be harmful if swallowed and enters airways. May cause respiratory irritation.
Treatment	: Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Quick-acting ABC powder extinguisher. Quick-acting BC powder extinguisher. Quick-acting class B foam extinguisher. Quick-acting CO2 extinguisher. Class B foam (alcohol-resistant). Water spray if puddle cannot expand.
Unsuitable extinguishing media	: Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.

### 5.2. Specific hazards arising from the chemical

Fire hazard	: DIRECT FIRE HAZARD: Material presenting a fire hazard. INDIRECT FIRE HAZARD: Temperature above flashpoint: higher fire/explosion hazard. Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard	: INDIRECT EXPLOSION HAZARD: Reactions with explosion hazards: see "Reactivity Hazard".
Reactivity	: Prolonged storage: may form peroxides on exposure to air. Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion.

### 5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighborhood close doors and windows.
Firefighting instructions	: Cool tanks/drums with water spray/remove them into safety.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus.

# Glycol Ether DPM

## Safety Data Sheet

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

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate personnel to safe areas. Keep people away from and upwind of spill/ leak. Ensure adequate ventilation. Use personal protective equipment. Eliminate all sources of ignition. Clean-up to be performed only by trained and properly equipped personnel.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

For containment : Contain released product, pump into suitable containers. Plug the leak, cut off the supply.  
Methods for cleaning up : Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite or lime. Scoop absorbed substance into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.  
Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Keep away from naked flames/heat. At temperature > flashpoint: use spark-/explosionproof appliances. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Before use: check for peroxides and eliminate them. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store only in tightly closed, properly vented containers away from heat, sparks, open flame and strong oxidizing agents. Storage under nitrogen atmosphere is recommended to minimize potential for moisture condensation in the vapor space, and the formation of peroxides.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Glycol Ether DPM (34590-94-8)		
ACGIH	ACGIH TWA (ppm)	100 ppm
ACGIH	ACGIH STEL (ppm)	150 ppm
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	600 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	100 ppm

#### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

#### 8.3. Individual protection measures/Personal protective equipment

##### Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: butyl rubber. polyethylene/ethylenevinylalcohol.

GIVE GOOD RESISTANCE: butyl rubber. neoprene. PVC. tetrafluoroethylene. natural rubber.

GIVE LESS RESISTANCE: nitrile rubber

# Glycol Ether DPM

## Safety Data Sheet

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

### Hand protection:

Wear chemical resistant gloves.

### Eye protection:

Use splash goggles when eye contact due to splashing or spraying liquid is possible.

### Skin and body protection:

Use personal protection equipment that is chemical resistant to the product and prevents skin contact.

### Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

*Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent products specifications. Contact the supplier for additional information.*

Physical state	: Liquid
Appearance	: Liquid.
Color	: Clear,colorless
Odor	: Ether-like odor
Odor threshold	: 35 ppm 210 mg/m <sup>3</sup>
pH	: 7 (100 %, 25 °C)
Melting point	: -83 °C (1013 hPa)
Freezing point	: No data available
Boiling point	: 189.6 °C (1013 hPa)
Flash point	: 75 °C (Closed cup, 1013 hPa)
Relative evaporation rate (butyl acetate=1)	: < 0.02
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: 10 mm Hg (75.1 °C)
Relative vapor density at 20 °C	: 5.1
Relative density	: 0.95 (20 °C)
Relative density of saturated gas/air mixture	: 1
Specific gravity / density	: 951 kg/m <sup>3</sup>
Molecular mass	: 148.23 g/mol
Solubility	: Soluble in water. Water: 100 % (25 °C)
Log Pow	: 0.004 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Auto-ignition temperature	: 207 °C (1013 hPa)
Decomposition temperature	: No data available
Viscosity, kinematic	: 4.55 mm <sup>2</sup> /s (20 °C, OECD 114: Viscosity of Liquids)
Viscosity, dynamic	: 4 mPa.s
Explosion limits	: 1.1 - 14 vol % LEL: 1.1 vol % (EU Method A.11: Flammability (gases)) UEL: 14 vol % (EU Method A.11: Flammability (gases))
Explosive properties	: No data available
Oxidizing properties	: No data available

### 9.2. Other information

Saturation concentration	: 3.6 g/m <sup>3</sup>
VOC content	: 100 %
Other properties	: Gas/vapour heavier than air at 20°C. Clear. Slightly volatile.

# Glycol Ether DPM

## Safety Data Sheet

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

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Will not occur.

#### 10.2. Chemical stability

Stable under recommended storage conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

Extended contact with air or oxygen.

The potential for peroxide formation is enhanced when this solvent is used in processes such as distillation.

Heat, sparks, open flame, other ignition sources, and oxidizing conditions. Ignition may occur at temperatures below those published in the literature as autoignition temperatures.

#### 10.5. Incompatible materials

Air or oxygen. Moisture and humidity. Strong oxidizing agents. May react with oxygen to form peroxides

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

Glycol Ether DPM (34590-94-8)	
LD50 oral rat	> 5000 mg/kg (Equivalent or similar to OECD 401, Rat, Male/female, Experimental value)
LD50 dermal rabbit	9510 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value)
LC50 inhalation rat (mg/l)	> 1.667 mg/l air (Equivalent or similar to OECD 403, 7 h, Rat, Male/female, Experimental value)
ATE US (dermal)	9510 mg/kg body weight

Skin corrosion/irritation : Not classified  
pH: 7 (100 %, 25 °C)

Serious eye damage/irritation : Not classified  
pH: 7 (100 %, 25 °C)

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : May cause respiratory irritation.

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified

Viscosity, kinematic : 4.55 mm<sup>2</sup>/s (20 °C, OECD 114: Viscosity of Liquids)

Potential Adverse human health effects and symptoms : Non-toxic if swallowed (LD50 oral, rat > 5000 mg/kg). Non-toxic in contact with skin (LD50 skin > 5000 mg/kg). Not irritant to skin. Slightly harmful by inhalation. Not irritant to eyes. Caution! Substance is absorbed through the skin.

Symptoms/effects after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Central nervous system depression. Dizziness. Drunkenness. Coordination disorders. Disturbances of consciousness. Headache. Irritation of the respiratory tract. Irritation of the nasal mucous membranes.

Symptoms/effects after skin contact : ON CONTINUOUS EXPOSURE/CONTACT: Not irritating.

Symptoms/effects after eye contact : EXPOSURE TO HIGH CONCENTRATIONS: Irritation of the eye tissue. Redness of the eye tissue.

Symptoms/effects after ingestion : AFTER INGESTION OF HIGH QUANTITIES: Nausea. Symptoms similar to those listed under inhalation.

# Glycol Ether DPM

## Safety Data Sheet

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

Chronic symptoms : No effects known.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - water : Not harmful to crustacea. Not harmful to fishes. Groundwater pollutant. Slightly harmful to algae. Not harmful to bacteria.

##### Glycol Ether DPM (34590-94-8)

LC50 fish 1	> 1000 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Poecilia reticulata, Static system, Fresh water, Experimental value)
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#### 12.2. Persistence and degradability

##### Glycol Ether DPM (34590-94-8)

Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0 g O <sub>2</sub> /g substance
ThOD	2.06 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0

#### 12.3. Bioaccumulative potential

##### Glycol Ether DPM (34590-94-8)

Log Pow	0.004 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

#### 12.4. Mobility in soil

##### Glycol Ether DPM (34590-94-8)

Surface tension	68.7 mN/m (20 °C, 1 g/l)
Ecology - soil	No (test)data on mobility of the substance available.

#### 12.5. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Product/Packaging disposal recommendations : Use appropriate containment to avoid environmental contamination. Remove waste in accordance with local and/or national regulations. Recycle by distillation. Remove to an authorized waste incinerator for solvents with energy recovery.

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Transport document description : NA1993 Combustible liquid, n.o.s. (Dipropylene Glycol Methyl Ether), 3, III  
UN-No.(DOT) : NA1993  
Proper Shipping Name (DOT) : Combustible liquid, n.o.s.  
(Dipropylene Glycol Methyl Ether)  
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120  
Packing group (DOT) : III - Minor Danger  
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203  
DOT Packaging Bulk (49 CFR 173.xxx) : 241  
DOT Symbols : D - Proper shipping name for domestic use only, or to and from Canada, G - Identifies PSN requiring a technical name

# Glycol Ether DPM

## Safety Data Sheet

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

DOT Special Provisions (49 CFR 172.102)	: IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2) T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 220 L
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Emergency Response Guide (ERG) Number	: 128
Other information	: No supplementary information available.

### Transportation of Dangerous Goods

#### Transport by sea

Not regulated :

#### Air transport

Not regulated

## SECTION 15 : Regulatory information

### 15.1. US Federal regulations

Glycol Ether DPM (34590-94-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	T – T – indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 311/312 Hazard Classes	Physical hazard – Flammable (gases, aerosols, liquids, or solids) Health hazard - Immediate Health.
TSCA 12b	Dipropylene Glycol Monomethyl Ether CAS# 34590-94-8 TSCA Section 4

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

#### National regulations

No additional information available

### 15.3. US State regulations

Glycol Ether DPM (34590-94-8)	
State or local regulations	U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right to Know Hazardous Substance List U.S. - Pennsylvania - Right to Know Hazardous Substance List

# Glycol Ether DPM

## Safety Data Sheet

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

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

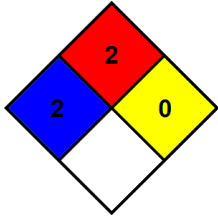
### SECTION 16: Other information

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

Revision date : 05/29/2018

Full text of H-phrases:

H227	Combustible liquid
H335	May cause respiratory irritation

NFPA health hazard	: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.	
NFPA fire hazard	: 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.	
NFPA reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.	
Hazard Rating		
Health	: 2 Moderate Hazard - Temporary or minor injury may occur	
Flammability	: 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)	
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.	

SDS US (GHS HazCom 2012)

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