

Glycol Ether DPM (Comsol DPM)

SDS Preparation Date (mm/dd/yyyy): 04/24/2016

Page 1 of 10

### SAFETY DATA SHEET

### SECTION 1. IDENTIFICATION

Product identifier used on the label

: Glycol Ether DPM (Comsol DPM)

Product Code(s) : None assigned.

Recommended use of the chemical and restrictions on use

Solvent / Cleaner / Degreaser Use pattern: professional use

Recommended restrictions None known.

Chemical family : Glycol ethers

of the supplier: the manufacturer: Comet Chemical Company Ltd. Refer to supplier

3463 Thomas Street

Innisfill, ON, Canada

L9S 3W4

Supplier's Telephone # : 705-436-5580

24 Hr. Emergency Tel # : TERRRAPURE ENVIRONMENTAL: 800-567-7455

### SECTION 2. HAZARDS IDENTIFICATION

### Classification of the chemical

Clear colourless liquid. Sweet ethereal odour.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification:

Flammable liquid - Category 4

#### Label elements

Signal Word

WARNING!

Hazard statement(s)

Combustible liquid.

## Precautionary statement(s)

Keep away from flames and hot surfaces. - No smoking.

Wear protective gloves and eye/face protection.

In case of fire: Use water fog, dry chemical, CO2 or 'alcohol' foam to extinguish.

Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Other hazards

Other hazards which do not result in classification: Burning produces obnoxious and toxic fumes. May be mildly irritating to eyes and skin.Ingestion of large amounts may cause: Dizziness, headache, and nausea. Fumes from heated product or mists may irritate respiratory tract.

#### Ecological information:

Harmful to aquatic life with long lasting effects. Avoid release to the environment.



Glycol Ether DPM (Comsol DPM)

SDS Preparation Date (mm/dd/yyyy): 04/24/2016

Page 2 of 10

## SAFETY DATA SHEET

#### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Pure substance

Chemical name	Common name and synonyms	CAS#	Concentration (% by weight)
Dipropylene glycol monomethyl ether	1,4-Dimethyl-3,6-dioxa-1-hepta nol; DPGME	34590-94-8	100.00

#### SECTION 4. FIRST-AID MEASURES

#### **Description of first aid measures**

*Ingestion* : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If

vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk

of aspiration. Get medical advice/attention if you feel unwell.

Inhalation : If breathed in, move person into fresh air. If breathing has stopped, give artificial

respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Get

medical advice/attention if you feel unwell.

Skin contact : Wash affected areas with soap and water. Remove and wash contaminated clothing

before re-use. Get medical attention if irritation develops and persists.

*Eye contact* : Rinse thoroughly with plenty of water, also under the eyelids. Remove contact lenses, if

present and easy to do. If eye irritation persists: get medical advice/attention.

### Most important symptoms and effects, both acute and delayed

: May cause mild skin and eye irritation. Exposure may cause temporary irritation,

redness or discomfort.

Ingestion of large amounts may be harmful. Ingestion of large amounts may cause:

Dizziness, headache, and nausea.

Fumes from heated product or mists may irritate respiratory tract. Symptoms may

include coughing and sneezing.

## Indication of any immediate medical attention and special treatment needed

: Provide general supportive measures and treat symptomatically.

# SECTION 5. FIRE-FIGHTING MEASURES

## **Extinguishing media**

Suitable extinguishing media

: Carbon dioxide (CO2); Dry chemical; Alcohol resistant foam; Water fog.

Unsuitable extinguishing media

: Do not use a solid water stream as it may scatter and spread fire.

### Special hazards arising from the substance or mixture / Conditions of flammability

: Combustible liquid and vapor. Keep away from flames and hot surfaces. Burning produces obnoxious and toxic fumes. Vapors are heavier than air and may spread along floors. Material will float on water and can be re-ignited at the water's surface. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. After prolonged storage, may release explosive peroxides in the presence of air. Rate of peroxide formation is not known.

#### Flammability classification (OSHA 29 CFR 1910.106)

: Flammable liquid - Category 4

## **Hazardous combustion products**

: Carbon oxides and other irritating fumes and smoke.

#### Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.



Glycol Ether DPM (Comsol DPM)

SDS Preparation Date (mm/dd/yyyy): 04/24/2016

Page 3 of 10

### SAFETY DATA SHEET

#### Special fire-fighting procedures

: Avoid breathing fumes, mists or vapors. Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

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

: Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Remove all sources of ignition. All persons dealing with the clean-up should wear the appropriate personal protective equipment.Refer to protective measures listed in sections 7 and 8.

#### **Environmental precautions**

Do not allow material to contaminate ground water system. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.

## Methods and material for containment and cleaning up

: Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Contact the proper local authorities.

#### Special spill response procedures

In case of transportation accident, contact TERRAPURE ENVIRONMENTAL at 1-800-567-7455. EPA/CERCLA Reportable quantity (RQ): None known.

### SECTION 7. HANDLING AND STORAGE

## Precautions for safe handling

: Use in a well-ventilated area. Keep away from flames and hot surfaces. - No smoking. Wear appropriate protective equipment. Wear protective gloves and eye/face protection. Bond and ground transfer containers and equipment to avoid static accumulation.

Avoid breathing fumes, mists or vapors. Avoid generating vapours or mists. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product. Wash with soap and water after handling.

Keep away from incompatibles. Keep containers closed when not in use. Empty containers retain residue (liquid and/or vapour) and can be dangerous.

#### Conditions for safe storage :

Store in a well ventilated place. Keep cool. Keep away from heat and sources of ignition. Keep container tightly closed. Store away from incompatible materials. Do not store in direct sunlight.

Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. No smoking. Inspect periodically for damage or leaks. Have appropriate fire extinguishers and spill clean-up equipment in or near storage area.

Incompatible materials

: Strong oxidizing agents, Strong acids.

### SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:				
Chemical Name	ACGIH	TLV	OSHA	PEL
	<u>TWA</u>	STEL	<u>PEL</u>	<u>STEL</u>
Dipropylene glycol monomethyl ether	100 ppm (skin)	150 ppm (skin)	100 ppm (skin)	N/Av

#### **Exposure controls**



Glycol Ether DPM (Comsol DPM)

SDS Preparation Date (mm/dd/yyyy): 04/24/2016

Page 4 of 10

### SAFETY DATA SHEET

#### Ventilation and engineering measures

: Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. In case of

insufficient ventilation wear suitable respiratory equipment.

If airbourne concentrations are above the permissible exposure limit or are not known, Respiratory protection

use NIOSH-approved respirators. In misty conditions, wear NIOSH/MSHA approved mist respirator. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA

Z94.4-02. Advice should be sought from respiratory protection specialists.

: No specific requirement, Recommended preventive skin protection. For prolonged or Skin protection

repeated contact use protective gloves. Advice should be sought from glove suppliers. Chemical goggles are recommended when there is a potential for splashing. A full face

Eye / face protection shield may also be necessary.

Ensure that eyewash stations and safety showers are close to the workstation location.

Other protective equipment : Other equipment may be required depending on workplace standards.

General hygiene considerations

: Avoid breathing fumes, mists or vapors. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash hands thoroughly after using this product, and before eating, drinking or smoking. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety

practice.

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** : Clear, colourless liquid Odour Sweet ethereal odour.

**Odour threshold** N/Av Hq : N/Av

Melting/Freezing point : -117.4°F / -83°C

Initial boiling point and boiling range

: 370.9-373°F / 188.3-189.6°C

165-167°F / 74-75°C Flash point

Flashpoint (Method) : closed cup

Evaporation rate (BuAe = 1) : 0.02 (butyl acetate = 1)

Flammability (solid, gas) : Not applicable.

Lower flammable limit (% by vol.)

N/Av

Upper flammable limit (% by vol.)

: 3.0%

Oxidizing properties : None known. : Not explosive **Explosive properties** 

Vapour pressure : 0.4 - 0.55 mm Hg @ 25°C / 77°F

5.1 (Air = 1)Vapour density

Relative density / Specific gravity

: 0.95@25 °C / 77°F

Solubility in water : Soluble

: Soluble in all proportions with diethyl ether, acetone, benzene, chloroform, methanol Other solubility(ies)

and some other organic solvents.

Partition coefficient: n-octanol/water or Coefficient of water/oil distribution

: 0.0061

404-518°F / 207-270°C **Auto-ignition temperature** 

**Decomposition temperature**: N/Av

: 4.55mm<sup>2</sup>/s@ 20°C / 68°F **Viscosity** 



Glycol Ether DPM (Comsol DPM)

SDS Preparation Date (mm/dd/yyyy): 04/24/2016

Page 5 of 10

### SAFETY DATA SHEET

Volatiles (% by weight) : N/Av Volatile organic Compounds (VOC's)

: N/Av

Absolute pressure of container

: N/Ap

Flame projection length : N/Av Other physical/chemical comments

: Molecular Weight: 148.2 g/mol

#### SECTION 10. STABILITY AND REACTIVITY

**Reactivity**: Not normally reactive.

Chemical stability : Stable under normal conditions. After prolonged storage, may release explosive

peroxides in the presence of air. Rate of peroxide formation is not known. It is

expected to be low and is not expected to present any hazard.

Possibility of hazardous reactions

: No dangerous reaction known under conditions of normal use. Hazardous

polymerization does not occur.

Conditions to avoid : Temperatures above74°C / 166°F.Keep away from flames and hot surfaces. Keep

away from direct sunlight. Avoid prolonged exposure to air. Do not use in areas without

adequate ventilation. Avoid contact with incompatible materials.

Incompatible materials : Strong oxidizing agents, Strong acids.

Hazardous decomposition products

: Carbon oxides and other irritating fumes and smoke.

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure:

Routes of entry inhalation : YES
Routes of entry skin & eye : YES
Routes of entry Ingestion : YES
Routes of exposure skin absorption

: YES

## **Potential Health Effects:**

### Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

Fumes from heated product or mists may irritate respiratory tract. Symptoms may

include coughing and sneezing.

Sign and symptoms ingestion

: Ingestion of large amounts may be harmful. Ingestion of large amounts may cause:

Dizziness, headache, and nausea.

Sign and symptoms skin : May cause mild skin irritation. Exposure may cause temporary irritation, redness or

discomfort.

Sign and symptoms eyes : May cause mild eye irritation. Exposure may cause temporary irritation, redness or

discomfort.

### **Potential Chronic Health Effects**

: None reported by the manufacturer.

**Mutagenicity** : Not expected to be mutagenic in humans.

Carcinogenicity : No components present at greater than 0.1% are considered to be a carcinogen by

IARC, ACGIH, NTP, or OSHA.



Glycol Ether DPM (Comsol DPM)

SDS Preparation Date (mm/dd/yyyy): 04/24/2016

Page 6 of 10

## SAFETY DATA SHEET

Reproductive effects & Teratogenicity

Not expected to cause reproductive effects.

Sensitization to material

: Not expected to be a skin or respiratory sensitizer.

Specific target organ effects:

Not classified as a specific target organ toxicity-single exposure. Not classified as specific target organ toxicity-repeated exposure.

Medical conditions aggravated by overexposure

: Pre-existing skin, eye and respiratory disorders.

Synergistic materials

: No information available.

Toxicological data

: Not classified for acute toxicity based on available data.

See below for toxicological data on the substance.

	LC <sub>50</sub> (4hr)	50	
Chemical name	inh, rat	(Oral, rat)	(Rabbit, dermal)
Dipropylene glycol monomethyl ether	>3 mg/L (mist)	5120 mg/kg	9480 mg/kg

#### Other important toxicological hazards

: None reported by the manufacturer.

### SECTION 12. ECOLOGICAL INFORMATION

## **Ecotoxicity**

: Harmful to aquatic life with long lasting effects. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

See the following tables for the substance's ecotoxicity data.

## Ecotoxicity data:

Ingradiente	CACNA	Toxicity to Fish				
<u>Ingredients</u>	CAS No	LC50 / 96h	NOEC / 21 day	M Factor		
Dipropylene glycol monomethyl ether	34590-94-8	> 10 000 mg/L (Fathead minnow)	N/Av	None.		

<u>Ingredients</u>	CAS No	Toxicity to Daphnia				
		EC50 / 48h	NOEC / 21 day	M Factor		
Dipropylene glycol monomethyl ether	34590-94-8	1919 mg/L (Daphnia magna)	≥0.5 mg/L (22 days)	None.		

<u>Ingredients</u>	CAS No	Toxicity to Algae					Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor					
Dipropylene glycol monomethyl ether	34590-94-8	> 969 mg/L/72hr (Green algae)	969 mg/L/72hr	None.					

### Persistence and degradability

: Expected to be readily biodegradable.

Bioaccumulation potential See the following data for ingredient information.



Glycol Ether DPM (Comsol DPM)

SDS Preparation Date (mm/dd/yyyy): 04/24/2016

Page 7 of 10

### SAFETY DATA SHEET

Components	Partition coefficient n-octanol/water (log Kow)	Bioconcentration factor (BCF)
Dipropylene glycol monomethyl ether (CAS 34590-94-8)	0.0061 @ 25°C	<1

Mobility in soil

: There is no data available for this product.

Other Adverse Environmental effects

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

### SECTION 13. DISPOSAL CONSIDERATIONS

**Handling for Disposal** 

: Handle in accordance with good industrial hygiene and safety practice. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Refer to protective measures listed in sections 7 and 8.

**Methods of Disposal** 

: Dispose in accordance with all applicable federal, state, provincial and local regulations.

RCRA

: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

#### SECTION 14. TRANSPORTATION INFORMATION Transport Regulatory **Packing** hazard Label **UN Number UN proper shipping name** Information Group class(es) Combustible. 49CFR/DOT NA1993 Combustible liquid, n.o.s. (Dipropylene glycol Ш monomethyl ether) 49CFR/DOT The 'label' appearing here is the placard to be used for bulk shipments. Not regulated for road or rail shipment if Additional packaged in non-bulk containers (450 Litres or less each). Refer to 49 CFR Section 173.150. information not regulated TDG Not regulated. None none TDG None. Additional information not regulated ICAO/IATA None. Not regulated. none ICAO/IATA None Additional information **IMDG** not regulated None Not regulated. none IMDG None. Additional information

Glycol Ether DPM (Comsol DPM)

SDS Preparation Date (mm/dd/yyyy): 04/24/2016

Page 8 of 10

### SAFETY DATA SHEET

**Environmental hazards** 

: This substance does not meet the criteria for an environmentally hazardous

substance according to the IMDG Code. See ECOLOGICAL INFORMATION, Section

12.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: This information is not available.

#### SECTION 15 - REGULATORY INFORMATION

## **US Federal Information:**

Components listed below are present on the following U.S. Federal chemical lists:

la anadia ata		TSCA		SARA TITLE III: Sec. 302, Extremely	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical		
<u>Ingredients</u>	CAS#	Inventory	Quantity(RQ) (40 Substan	Hazardous Substance, 40 CFR 355:	Toxic Chemical	de minimus Concentration	
Dipropylene glycol monomethyl ether	34590-94-8	Yes	N/Ap	N/Ap	No	N/Ap	

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute) health hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

## **US State Right to Know Laws:**

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS#	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Dipropylene glycol monomethyl ether	34590-94-8	No	Not listed	Yes	Yes	Yes	Yes	Yes	No

#### **Canadian Information:**

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

## **International Information:**

Components listed below are present on the following International Inventory list:

Ingredients	CAS#	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Dipropylene glycol monomethyl ether	34590-94-8	252-104-2	Present	Present	(7)-97; (2)-426	KE-12230	Present	HSR001402

## **SECTION 16. OTHER INFORMATION**

Legend : ACGIH: American Conference of Governmental Industrial Hygienists

AICS: Australian Inventory of Chemical Substances

CA: California



Glycol Ether DPM (Comsol DPM)

SDS Preparation Date (mm/dd/yyyy): 04/24/2016

Page 9 of 10

### SAFETY DATA SHEET

CAS: Chemical Abstract Services

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

of 1980

CFR: Code of Federal Regulations CSA: Canadian Standards Association DOT: Department of Transportation EC50: Effective Concentration 50%.

EINECS: European Inventory of Existing Commercial chemical Substances

**ENCS: Existing and New Chemical Substances** EPA: Environmental Protection Agency HSDB: Hazardous Substances Data Bank

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

IBC: Intermediate Bulk Container

ICAO: International Civil Aviation Organisation IECSC: Inventory of Existing Chemical Substances

Inh: Inhalation

IMDG: International Maritime Dangerous Goods

IOC: Inventory of Chemicals

**KECI: Korean Existing Chemicals Inventory KECL: Korean Existing Chemicals List** 

LC: Lethal Concentration

LD: Lethal Dose MA: Massachusetts MN: Minnesota N/Ap: Not Applicable N/Av: Not Available

NIOSH: National Institute of Occupational Safety and Health

NJ: New Jersey

NOEC: No observable effect concentration

NTP: National Toxicology Program

OECD: Organisation for Economic Co-operation and Development

OSHA: Occupational Safety and Health Administration

PA: Pennsylvania

PEL: Permissible exposure limit

PICCS: Philippine Inventory of Chemicals and Chemical Substances

RCRA: Resource Conservation and Recovery Act

RI: Rhode Island

RTECS: Registry of Toxic Effects of Chemical Substances SARA: Superfund Amendments and Reauthorization Act SDS: Safety Data Sheet / Material Safety Data Sheet

STEL: Short Term Exposure Limit

TDG: Canadian Transportation of Dangerous Goods Act & Regulations

TLV: Threshold Limit Values TSCA: Toxic Substance Control Act TWA: Time Weighted Average

WHMIS: Workplace Hazardous Materials Identification System

References

- 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2016.
- 2. International Agency for Research on Cancer Monographs, searched 2016.
- 3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2016 (Chempendium, HSDB and RTECs).
- 4. Material Safety Data Sheets from manufacturer.
- 5. US EPA Title III List of Lists 2016 version.
- 6. California Proposition 65 List

Preparation Date (mm/dd/yyyy)

: 04/24/2016



Glycol Ether DPM (Comsol DPM)

SDS Preparation Date (mm/dd/yyyy): 04/24/2016

Page 10 of 10

### SAFETY DATA SHEET

### Other special considerations for handling

: Provide adequate information, instruction and training for operators.

### Prepared for:

Comet Chemical Company Ltd. 3463 Thomas Street Innisfill, ON L9S 3W4 Information (M-F 8:00-5:00): 705-436-5580 www.cometchemical.com



## Prepared by:

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#### **DISCLAIMER**

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