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

1.1 Product identifier

- Trade name

GLYCOL ETHER DPM

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

- no data available

1.3 Details of the supplier of the safety data sheet

Company

The Chemical Supply 9595 Six Pines Dr., Ste 8210 The Woodlands, TX 770380 info@thechemicalsupply.com

US Telephone Number: 832-706 - 4045

1.4 Emergency telephone

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT CONTACT: CHEMTREC 800-424-9300 within the United States and Canada, or 703-527-3887 for international collect calls.

SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

2.1 Classification of the substance or mixture

HCS 2012 (29 CFR 1910.1200)

Flammable liquids, Category 4

H227: Combustible liquid.

2.2 Label elements

HCS 2012 (29 CFR 1910.1200)

Signal Word

- Warning

Hazard Statements

- H227 Combustible liquid.

Precautionary Statements

Prevention

- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

- P280 Wear protective gloves/ eye protection/ face protection.

Response

- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

<u>Storage</u>

- P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal

- P501 Dispose of contents/ container to an approved waste disposal plant.

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2.3 Other hazards which do not result in classification

None identified

SECTION 3: Composition/information on ingredients

3.1 Substance

Hazardous Ingredients and Impurities

Chemical name	Identification number CAS-No.	Concentration [%]
Propanol, 1(or 2)-(2-methoxymethylethoxy)-	34590-94-8	>= 99 - <= 100
2-methoxypropanol	1589-47-5	< 0.1

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

3.2 Mixture

Not applicable, this product is a substance.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

- Show this material safety data sheet to the doctor in attendance.
- First responder needs to protect himself.
- Place affected apparel in a sealed bag for subsequent decontamination.

In case of inhalation

- Remove victim from exposure and then have him lie down in the recovery position.
- If breathing is difficult, give oxygen.
- If victim has stopped breathing:
- administer CPR (cardio-pulmonary resuscitation)
- Get immediate medical advice/ attention.

In case of skin contact

- In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Seek medical advice.
- Wash contaminated clothing before reuse.

In case of eye contact

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- Seek medical advice.

In case of ingestion

- Do not induce vomiting without medical advice.
- If victim is conscious:
- Rinse mouth with water.
- Keep at rest.

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- Do not give anything to drink.
- Do not leave the victim unattended.
- Vomiting may occur spontaneously
- Risk of product entering the lungs on vomiting after ingestion.
- Lav victim on side.
- Get immediate medical advice/ attention.

4.2 Most important symptoms and effects, both acute and delayed

Effects

- Skin contact may aggravate existing skin disease
- Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
- Treat symptomatically.
- There is no specific antidote available.

SECTION 5: Firefighting measures

Flash point 167 °F (75 °C)

Method: closed cup

Flammability class: Will burn

Autoignition temperature no data available

Flammability / Explosive limit no data available

5.1 Extinguishing media

Suitable extinguishing media

- Extinguishing media small fires
- Dry chemical
- Carbon dioxide (CO2)
- Extinguishing media large fires
- Foam
- Water spray

Unsuitable extinguishing media

- High volume water jet
- (frothing possible)

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting

- Under fire conditions:
- Will burn
- Container may explode if heated.
- Vapors may spread long distances and ignite.
- Hazardous decomposition products formed under fire conditions.

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Hazardous combustion products:

- On combustion or on thermal decomposition (pyrolysis), releases:
- Carbon oxides
- Sulfur oxides

5.3 Advice for firefighters

Special protective equipment for fire-fighters

- Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

Specific fire fighting methods

- Cool closed containers exposed to fire with water spray.
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Ventilate the area.
- Eliminate all ignition sources if safe to do so.
- Evacuate personnel to safe areas.
- Mark the contaminated area with signs and prevent access to unauthorized personnel.
- Wear suitable protective equipment.
- For further information refer to section 8 "Exposure controls / personal protection."
- Avoid contact with eyes, skin, and respiratory system.

6.2 Environmental precautions

- Do not flush into surface water or sanitary sewer system.
- Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.
- Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies

6.3 Methods and materials for containment and cleaning up

Prohibition

Use only non-sparking tools.

Methods for containment

- Stop the leak. Turn leaking containers leak-side up to prevent the escape of liquid.
- Dam up with sand or inert earth (do not use combustible materials).

Recovery

- Pump or collect any free spillage into an appropriate closed container. (see Section 7: Handling and Storage)
- Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
- Shovel or sweep up.
- Keep in suitable, closed containers for disposal.
- Never return spills in original containers for re-use.

Decontamination / cleaning

- Clean contaminated surface thoroughly.
- Wash nonrecoverable remainder with large amounts of water.
- Recover the cleaning water for subsequent disposal.
- Decontaminate tools, equipment and personal protective equipment in a segregated area.

Disposal

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- Dispose of in accordance with local regulations.

6.4 Reference to other sections

- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Handle in accordance with good industrial hygiene and safety practice.
- Pregnant or breastfeeding workers should not be occupied in the blending and high temperature processing operations.
- The product must only be handled by specifically trained employees.
- Avoid contact with skin and eyes.
- Do not use sparking tools.
- Ensure all equipment is electrically grounded before beginning transfer operations.
- Do not ingest.
- Do not breathe vapors or spray mist.

Hygiene measures

- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
- 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is
- 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- 3) Wash exposed skin promptly to remove accidental splashes or contact with material.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

- Store in accordance with the particular national regulations.
- Keep container tightly closed in a dry and well-ventilated place.
- Store contents under inert gas.
- Keep away from open flames, hot surfaces and sources of ignition.
- Keep away from incompatible materials to be indicated by the manufacturer
- Keep away from: Oxidizing agents

Packaging material

Suitable material

- Mild steel
- Stainless steel

Unsuitable material

- rubbers.

Requirements for storage rooms and vessels

Recommended storage temperature: 100 °F (38 °C)

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7.3 Specific end use(s)

- no data available

SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

Components with workplace occupational exposure limits

Ingredients	Value type	Value	Basis
Propanol, 1(or 2)-(2-methoxymethylethoxy)-	TWA	100 ppm	American Conference of Governmental Industrial Hygienists
	Danger of cutaneous absorption		
Propanol, 1(or 2)-(2-methoxymethylethoxy)-	STEL	150 ppm	American Conference of Governmental Industrial Hygienists
	Danger of cutaneous absorption		
Propanol, 1(or 2)-(2-methoxymethylethoxy)-	ST	150 ppm 900 mg/m3	National Institute for Occupational Safety and Health
	Potential for dermal absorption		
Propanol, 1(or 2)-(2-methoxymethylethoxy)-	TWA	100 ppm 600 mg/m3	National Institute for Occupational Safety and Health
	Potential for dermal absorption		
Propanol, 1(or 2)-(2-methoxymethylethoxy)-	TWA	100 ppm 600 mg/m3	Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants
	Skin designation, The value in mg/m3 is approximate.		

NIOSH IDLH (Immediately Dangerous to Life or Health Concentrations)

Ingredients	CAS-No.	Concentration
Propanol, 1(or 2)-(2-methoxymethylethoxy)-	34590-94-8	600 ppm

8.2 Exposure controls

Control measures

Engineering measures

- Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures:
- Effective exhaust ventilation system
- Extract at emission point.

Individual protection measures

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Respiratory protection

- When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.
- Under normal conditions, in the absence of other airborne contaminants, the following devices should provide protection from this material up to the conditions specified by the appropriate local standard(s):
- Respirator with filter for organic vapor
- In the event of insufficient ventilation:
- If the occupational exposure limit is exceeded:
- Wear a positive-pressure supplied-air respirator with full facepiece.

Hand protection

- Where there is a risk of contact with hands, use appropriate gloves
- Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- Gloves must be inspected prior to use.
- Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection

- Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.
- Eye contact should be prevented through the use of:
- Safety glasses with side-shields

Skin and body protection

- Recommended preventive skin protection
- Footwear protecting against chemicals
- Impervious clothing
- Full protective suit
- Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

- Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this materials:
- 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this
 material is stored.
- 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- 3) Wash exposed skin promptly to remove accidental splashes or contact with material.

Protective measures

- Ensure that eyewash stations and safety showers are close to the workstation location.
- Emergency equipment immediately accessible, with instructions for use.
- The protective equipment must be selected in accordance with current local standards and in cooperation with the supplier of the protective equipment.
- 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 potential hazards, and/or risks that may occur during use.

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SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

9.1 Information on basic physical and chemical properties

<u>Appearance</u> <u>Form</u>: clear

<u>Physical state:</u> liquid <u>Color</u>: colorless

<u>Odor</u> ether-like

Odor Thresholdno data availablepHNot applicable

<u>Melting point/freezing point</u>: -117 °F (-83 °C)

Initial boiling point and boiling range Boiling point/boiling range: 363 - 374 °F (184 - 190 °C)

Flash point 167 °F (75 °C) Method: closed cup

Flammability class: Will burn

Evaporation rate (Butylacetate = 1)no data availableFlammability (solid, gas)no data availableFlammability (liquids)no data available

Flammability (liquids)

Flammability / Explosive limit

Autoignition temperature

no data available

no data available

<u>Vapor pressure</u> 0.28 mmHg (0.37 hPa) (77 °F (25 °C))

<u>Vapor density</u> no data available

Density

<u>Relative density</u> 0.95 - 0.96 (77 °F (25 °C))

<u>Solubility</u> Water solubility:

(77 °F (25 °C))completely soluble

Partition coefficient: n-octanol/waterno data availableDecomposition temperatureno data available

<u>Viscosity</u>, <u>kinematic</u>: 4.55 mm2/s (68 °F (20 °C))

Explosive properties no data available

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Oxidizing properties

no data available

9.2 Other information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

- no data available

10.2 Chemical stability

- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Polymerization

- Hazardous polymerization does not occur.

10.4 Conditions to avoid

- Keep away from heat and sources of ignition.
- Keep away from flames and sparks.
- Static electricity

10.5 Incompatible materials

- Strong oxidizing agents

10.6 Hazardous decomposition products

- On combustion or on thermal decomposition (pyrolysis), releases:
- Carbon oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

2-methoxypropanol LD50: 5,710 mg/kg - Rat

Method: according to a standardized method

Published data

Acute inhalation toxicity no data available

Acute dermal toxicity

2-methoxypropanol LD50: 5,660 mg/kg - Rabbit

Method: according to a standardized method

Published data

Acute toxicity (other routes of

administration)

no data available

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Skin corrosion/irritation

2-methoxypropanol Skin irritation

Serious eye damage/eye irritation

2-methoxypropanol Risk of serious damage to eyes.

Respiratory or skin sensitization no data available

Mutagenicity

Genotoxicity in vitro

2-methoxypropanol Mutagenicity (Salmonella typhimurium - reverse mutation assay)

with and without metabolic activation

negative

Method: OECD Test Guideline 471

Unpublished reports

Genotoxicity in vivo no data available

<u>Carcinogenicity</u> no data available

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

NTP IARC OSHA ACGIH

Toxicity for reproduction and development

Toxicity to reproduction / fertility no data available

Developmental Toxicity/Teratogenicity

2-methoxypropanol Rabbit, female

Application Route: Inhalation Method: OECD Test Guideline 414

Teratogenic effects. Published data

Rat , female

Application Route: Inhalation Method: OECD Test Guideline 414

Teratogenic effects. Published data

STOT

STOT-single exposure

2-methoxypropanol May cause respiratory irritation.

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STOT-repeated exposure

no data available

CMR effects

Teratogenicity

2-methoxypropanol Clear evidence of adverse effects on development, based on animal experiments.

Aspiration toxicity no data available

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment Acute toxicity to fish

no data available

Acute toxicity to daphnia and other aquatic invertebrates.

no data available

Toxicity to aquatic plants

no data available

Toxicity to microorganisms

no data available

Chronic toxicity to fish

no data available

Chronic toxicity to daphnia and

other aquatic invertebrates.

no data available

Chronic Toxicity to aquatic plants

no data available

12.2 Persistence and degradability

Abiotic degradation

no data available

Physical- and photo-chemical

elimination

no data available

Biodegradation

no data available

Degradability assessment

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2-methoxypropanol

The product is considered to be rapidly degradable in the environment

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water

2-methoxypropanol Not potentially bioaccumulable

Bioconcentration factor (BCF) no data available

12.4 Mobility in soil

Adsorption potential (Koc) no data available

Known distribution to environmental no data available

compartments

12.5 Results of PBT and vPvB assessment

2-methoxypropanol This substance is not considered to be persistent, bioaccumulating, and toxic

This substance is not considered to be very persistent and very bioaccumulating

(vPvB).

12.6 Other adverse effects no data available

Ecotoxicity assessment

Acute aquatic toxicity

2-methoxypropanol This product has no known ecotoxicological effects.

Chronic aquatic toxicity

2-methoxypropanol This product has no known ecotoxicological effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

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Waste Code

- Environmental Protection Agency
- Hazardous Waste NO

Advice on cleaning and disposal of packaging

- Rinse with an appropriate solvent.
- Dispose of contents/container in accordance with local regulation.

SECTION 14: Transport information

Transportation status: IMPORTANT! Statements below provide additional data on listed transport classification.

The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

DOT

14.1 UN number NA 1993

14.2 Proper shipping name COMBUSTIBLE LIQUID, N.O.S. (Dipropylene Glycol Methyl Ether)

14.3 Transport hazard classCombustible liquid.

14.4 Packing group

Packing group III ERG No 128

14.5 Environmental hazards

Marine pollutant

NO

14.6 Special precautions for user

Remarks : The combustible liquid classification only applies when shipped in package

sizes >119 gallons.

TDG

not regulated

IMDG

not regulated

<u>IATA</u>

not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

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SECTION 15: Regulatory information

15.1 Notification status

Inventory Information	Status
United States TSCA Inventory	- Listed on Inventory
Canadian Domestic Substances List (DSL)	- Listed on Inventory
Australia Inventory of Chemical Substances (AICS)	- Listed on Inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- Listed on Inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- Listed on Inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- Listed on Inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- Listed on Inventory

15.2 Federal Regulations

US. EPA EPCRA SARA Title III

SARA HAZARD DESIGNATION SECTIONS 311/312 (40 CFR 370)

Fire Hazard	yes
Reactivity Hazard	no
Sudden Release of Pressure Hazard	no
Acute Health Hazard	yes
Chronic Health Hazard	no

Section 313 Toxic Chemicals (40 CFR 372.65)

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Section 302 Emergency Planning Extremely Hazardous Substance Threshold Planning Quantity (40 CFR 355)

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355)

This material does not contain any components with a SARA 302 RQ.

Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355)

This material does not contain any components with a section 304 EHS RQ.

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

This material does not contain any components with a CERCLA RQ.

15.3 State Regulations

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

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SECTION 16: Other information

NFPA (National Fire Protection Association) - Classification

Health 1 slight
Flammability 2 moderate
Instability or Reactivity 0 minimal

HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification

Health 1 slight Flammability 2 moderate

PPE Determined by User; dependent on local conditions

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Key or legend to abbreviations and acronyms used in the safety data sheet

ST STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday

STEL Short-term exposure limit
 TWA 8-hour, time-weighted average

ACGIH American Conference of Governmental Industrial Hygienists

- OSHA Occupational Safety and Health Administration

- NTP National Toxicology Program

IARC International Agency for Research on Cancer
 NIOSH National Institute for Occupational Safety and Health

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.

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