



# SAFETY DATA SHEET

## DIPROPYLENE GLYCOL

### 1.IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product name:	DIPROPYLENE GLYCOL
Recommended use:	Chemical for industrial
Manufacturer/Supplier:	<b>MODERN CHEMICAL CO.,LTD.</b> 82/80 Soi Ekamai 22 (Nuannoi), Sukhumvit 63, Klong Tan Nuea, Watthana, Bangkok 10110
Telephone No:	0-2715-0897-9, 0-2392-3410-3
Fax No:	0-2715-0908-9, 0-2391-1571-2
Emergency Telephone No:	0-2715-0897-9, 0-2392-3410-3

### 2. HAZARDS IDENTIFICATION

**Label elements:**

Not a dangerous substance or mixtures according to the Globaly Harmonised System (GHS).

**Hazard statement(s):**

No data available.

**Precautionary statement(s):**

No data available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonym:** DPG; 2,2-Dihydroxyisopropyl Ether; Methyl-2(Methyl-2) Oxybispropanol

Ingredients	% (w/w)	CAS NO.
DIPROPYLENE GLYCOL	100	25265-71-8

### 4. FIRST AID MEASURES

**General advice:** May cause irritation of the eyes, skin and mucous membranes. Always observe self-protection methods. Move out of dangerous area. Remove contaminated shoes and



clothing. Show this material safety data sheet to the doctor in attendance.

**Inhalation:**

Not expected to present a significant inhalation hazard under anticipated conditions of normal use. Avoid inhalation of hot vapors or extremely high concentrations of aerosols. Remove to fresh air. In the case of inhalation of aerosol/mist consult a physician if necessary.

**Skin contact:**

Wash skin thoroughly with mild soap and water.

**Eye contact:**

Flush eyes with water thoroughly and continuously for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, consult a specialist.

**Ingestion:**

Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:**

Small fire: Use dry chemical, CO<sub>2</sub>, water spray or alcohol-resistant foam.

Large fire: Use water spray, water fog or alcohol-resistant foam.

**Unsuitable Extinguishing Media:**

Do not use solid water stream.

**Specific hazards arising from Chemicals:**

Heat from fire can generate flammable vapor. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Vapors may be heavier than air. May travel long distances along the ground before igniting and flashing back to vapor source. Fine sprays/mists may be combustible at temperatures below normal flash point. Fight fire from a safe distance/protected location. Heat may build enough pressure to rupture closed containers/spreading fire/increasing risk of burns/injuries. Use water spray/fog for cooling. Avoid frothing/steam explosion. Burning liquid may float on water. Although water soluble, may not be practical to extinguish fire by water dilution. Notify authorities immediately if liquid enters sewer/public waters.

**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 MEAS

**Precautions:** Use personal protective equipment. Clean-up to be performed only by trained and property equipped personnel.

**Environmental precautions:** Try to prevent the material from entering drains or water courses.

### Methods and Material for Containment and Clean Up:

Extinguish all ignition sources. Stop release; prevent flow to sewers/public waters. Notify fire and environmental authorities. Impound/recover large land spill; soak up small spill with inert solids. Soak up small spills with inert solids. Use suitable disposal containers. On water, material is soluble and may float or sink. Contain/collect rapidly to minimize dispersion. Disperse residue to reduce aquatic harm. Report per regulatory requirements.

## 7. HANDLING AND STORAGE

### Precautions for Safe Handling & Product Transfer:

Handle empty containers with care-residue can burn if heated. 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.

### Conditions for Safe Storage & Unsuitable Materials:

Keep container tightly closed when not in use. Protect from moisture. Store away from heat. Material can attack some forms of plastics. Do not store together with oxidizing and self-igniting products. Advice common storage: Carbon/Mild steel with suitable internal coating, or stainless steel.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational Exposure Limits:** Consult local authorities for acceptable exposure limits.

**Appropriate Engineering Controls:** No special ventilation is recommended under anticipated conditions of normal use beyond that needed for normal comfort control.

### Individual Protection Measures

**Respiratory protection:** No special respiratory protection is recommended under anticipated conditions of normal use. In an emergency, use supplied air or a self contained breathing apparatus. Containing air, operated in positive pressure mode which has been recommended or approved by an appropriate agency.



- Hand protection:** Not normally considered a skin hazard. Use chemical resistant gloves appropriate to conditions of use. Wear chemical resistant gloves such as: Nitrile rubber, Latex.
- Eye protection:** Safety glasses with side-shields. Use splash goggles when eye contact due to splashing or spraying liquid is possible.
- Skin and body protections:** No special clothing/skin protection equipment is recommended under normal conditions of anticipated use. Where use can result in skin contact, practice good personal hygiene.
- 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form, Color and Odor :</b> liquid, Colorless , odorless	<b>Evaporation rate :</b> N/A
<b>Melting Point :</b> < -20 °C	<b>Specific gravity :</b> 1.020 – 1.025 g/cm <sup>3</sup> at 20 °C
<b>pH :</b> 7.4	<b>Solubility in water:</b> Miscible in water.
<b>Boiling point :</b> 227 °C	<b>Viscosity :</b> 118 mm <sup>2</sup> /s at 20 °C, 32 mm <sup>2</sup> /s at 40 °C
<b>Vapour pressure :</b> 0.013 hPa at 25 °C	<b>Vapour density (air=1) :</b> 4.6 (air = 1 at 15-20°C)
<b>Lower explosive limits :</b> N/A	<b>Upper explosive limits :</b> N/A
<b>Auto-ignition temperature :</b> 332 °C	<b>Flash point:</b> 128 - 132 °C
<b>Odour threshold:</b> N/A	<b>Flammability (solid, gas):</b> Not applicable
<b>Decomposition temperature:</b> N/D	<b>Solubility in other solvents:</b> N/A
<b>n-octanol/water partition coefficient (log P<sub>ow</sub>):</b> -0.462 at 21.7 °C	

## 10. STABILITY AND REACTIVITY

- Chemical Stability:** No data available.
- Reactions:** No data available.



<b>Possibility of Hazardous Reactions:</b>	Not expected to occur. This material is stable when properly handled and stored.
<b>Conditions to avoid:</b>	High temperatures, oxidizing conditions.
<b>Materials to avoid:</b>	Strong acids, Isocyanates, Strong oxidizing agents.
<b>Hazardous decomposition products:</b>	Thermal decomposition may produce carbon monoxide and other toxic vapors.

## 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity:</b>	LD50 (Oral, rat): >5000 mg/kg LD50 (Dermal, rabbit): >5000 mg/kg LC50 (Inhalation, rat): >2.34 mg/l - 4h
<b>Sensitization:</b>	After skin contact: May cause slight transient skin irritation. After swallowing: Ingestion of high doses may cause discomfort or irritation of the gastrointestinal tract and CNS depression and intestine (fatigue, dizziness and possibly loss of concentration, with collapse, coma and death in cases of severe over-exposure).
<b>Chronic toxicity:</b>	Reproductive toxicity: Male rats and female mice ingesting multi-gram quantities of dipropylene glycol for 90-days exhibited changes in testis and estrous cycle that appeared secondary to clinical-and systemic toxicity, debilitation and death. Data available on related homologues suggest it is unlikely to affect fertility or reproduction at lower exposures that do not cause morbidity or mortality. Carcinogenicity: Not classified. No adverse effect observed.
<b>Further toxicological information:</b>	No data available.

## 12. ECOLOGICAL INFORMATION

### 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.



Biodegradability Remarks:	Rapidly degradable, 64.5 - 93.4% (After 28 day in a ready biodegradability test)
Bioaccumulative Potential:	This material is may expected to bioaccumulate. Bioconcentration factor (BCF): 0.3 - 4.6
Mobility:	Stability in soil and water.
Affected in any other way:	No data available.

### 13. DISPOSAL CONSIDERATIONS

<b>Material Disposal:</b>	Comply with application local, state or international regulations concerning solid or hazardous waste disposal and/or container disposal. Landfill solids at permitted sites. Burn concentrated liquids, diluting with clean, low viscosity fuel. Dilute aqueous waste may biodegrade.
<b>Container Disposal:</b>	No data available.

### 14. TRANSPORT INFORMATION

#### ADR/ADNR

Not regulated for transport

#### IMGD

Not regulated for transport

#### IATA

Not regulated for transport

### 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



Europe	REACH	See REACH Compliance Statement
Japan	ENCS	Compliant
Korea	KECI	Compliant
New Zealand	NZIoC	Compliant
Philippines	PICCS	Compliant
United States of America	TSCA	Compliant
Taiwan	TCSCA	Compliant

#### REACH status

*If the product has been purchased from any company of the LyondellBasell group of companies registered in the European Union, we confirm that the chemical substance in this product has been pre-registered or, where required under REACH, registered, and that we have the intention to proceed with any required registration in accordance with the deadlines set forth in REACH. (Regulation (EU) No.1907/2006)*

#### 16. Other Information

Modern Chemical Co.,Ltd. provides the information contained herein in good faith but makes no representation as to its comprehensive or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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