



Crystal India

MATERIAL SAFETY DATA SHEET

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PRODUCT IDENTIFICATION

Product Name	DIETHYLENE GLYCOL
CAS NO.	111-46-6
Other Name:	Diglycol; Digol; 2,2 Dihydroxy diethyle ether Ethylene diglycol bis (2-hydroxyethyl) ether; 2, 2 - Oxybis-ethanol
Product Packaging:	Drums / Tankers
Product Use:	See DEG Application File
Formula:	CH ₂ OHCH ₂ OH

PHYSICAL PROPERTIES

Formula	CH ₂ OHCH ₂ OH
Physical state at room temperature	Liquid
Appearance	Colourless
Odour	Odourless
Chromatographic Purity (by GC)	NLT 95.0%
Moisture	0.08 %
pH	6-7
Distillation range	96% distils between 226°C - 282°C
MEG	3-4%
TEG	0.5-1%
Chlorine	>>225 PPM
Melting Point	- 8°C
Boiling Point	226°C

Specific Gravity (20°C)	1.1153- 1.1156
Water (by KFR)	NMT 0.5%
Flammability Limits (%)	LEL 3 UEL 7
Flash Point	152°C
Vapour Density (air=1)	3.6
Vapour Pressure (30°C)	0.01 mm Hg
Auto Ignition Temp	225°C
Solubility in water	Miscible with water

FIRE AND EXPLOSION HAZARD INFORMATION

Flash Point	152°C
Auto Ignition Temp	225°C

Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion. Alcohol-resistant foam, WATER SPRAY OR FOG. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

TOXICITY INFORMATION

Exposure standards for Diethylene Glycol vapour or mist are:

Ingestion

LD50, Rat	12,565 mg/kg
Approximate. Lethal Dose, Human, adult 2 Ounces	

Skin Absorption

LD50, Rabbit	12,510 mg/kg
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Inhalation

LC50, 4 h, Rat	> 4.4 mg/l
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Ensure adequate ventilation is maintained and exposure below the exposure standards. Local exhaust ventilation should be considered.

At all times wear all safety equipments such as gloves, goggles, overalls, etc. Avoid skin and eye contact and inhalation of vapour

HEALTH HAZARD INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label if applicable.

ACUTE EFFECTS

- **SWALLOWED:**
Swallowing of large doses may cause depression, muscular in coordination, & visual impairment. Harmful if swallowed. Induce vomiting preferably using Ipecac Syrup, give 1 to 2 glasses of water.
- **EYE:**
May cause slight irritation. Immediately irrigate with copious quantities of water for at least 15 minutes
- **SKIN:**
It may cause slight irritation with prolonged or repeated contact. Wash contaminated skin with plenty of soap and water. Remove contaminated clothing and wash before re-use
- **INHALED:**
Vapour or mist may be irritant to mucous membranes and respiratory tract. Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If breathing laboured and patient cyanotic (blue) ensure airways are clear and have qualified person give oxygen through a face mask or if needed apply artificial respiration at once. In event of cardiac arrest, apply external cardiac massage.
- **CHRONIC EFFECTS:**
Long term effects may include kidney & liver damage.

SPILLAGE AND WASTE

Stop the leak. Limit spreading by using sand or soil. Provide for very good ventilation. Soak up small quantities of product which may have spread by using absorbent material (Rags, sawdust or other inert material) carrying later the contaminated material to a safe and ventilated area, outside working quarters.

If large quantities of product have spread, prevent it from flowing into drains. Collect it in traps for recovery. Intervene only after having worn suitable protective clothing.

STORAGE STANDARD

CAUTIONS:

Keep containers / drums / barrels in a well ventilated, cool place away from direct sunlight.

HANDLING STANDARD

HANDLING:

Keep container closed and properly labelled. Store in a cool, dry, ventilated area. Protect the drums from physical damage.

DEG may be employed in the presence or absence of air, water and light with any of the common metals. It is practically non-flammable at normal room temperature. With proper controls, it should be kept neutral in pH.

PERSONNEL PROTECTION:

Face mask equipped with filter for organic vapours. Gloves, boots and overall with cap suitable to protect Head, Face and Neck. Operate only in well ventilated areas equipped with aspirators at ground level

NOTE:

Separate clothing for work from civil dresses. Wash frequently. Take care of personal Hygiene as better as possible. Appropriate wash apparatus and piping before maintenance.