



# *Crystal India*

## **APPLICATIONS OF DIETHYLENE GLYCOL**

- **ANTIFREEZE & COOLANTS:**

Diethylene Glycol (D.E.G) remain viscous at low temperature, has a low freezing point and high boiling point. It is frequently used to make automobile antifreeze and coolants, aircraft anti-icing and deicing materials.

- **CHEMICAL INTERMIDIATES:**

DEG is a versatile chemical intermediate used to produce a variety of products for commercial and industrial use:

- Adhesives and coatings
- Emulsifiers
- Lubricants
- Plasticizers
- Polyurethane foams
- Solvents
- Silicone compounds
- Thermoplastics
- Unsaturated polyester resins

- **GAS DEHYDRATION & TREATING:**

It is commonly used in natural gas hydration and treating applications to remove water and impurities. DEG has excellent hygroscopicity and low volatility, and because of these characteristics, DEG is in high demand in the natural gas drying market.

- **HEAT TRANSFER FLUID:**

DEG due to its low freezing point and high boiling point are predominantly used in heat transfer fluids.

- **POLYESTER RESINS:**

It is used as a reactant in the manufacture of polyester resins. It is widely used in polyester fiber, films and polyethylene terephthalate (PET) resin production, as well as alkyd resins used in paints. The uses for polyester resins are extremely varied, such as luggage, furnishings, boat and marine, construction materials, automotive, appliances, textiles, aircraft bodies, and packaging.

Polyester fibers are commonly found in textile applications including clothing and carpets.

Polyester films are frequently used in packaging and wraps for consumer goods, as well as video, audio and computer tapes. PET is widely used in the manufacturing of beverage bottles and containers, and other consumer goods packaging.

- **SOLVENTS:**

DEG has excellent solvent properties

- Aromatic and paraffinic hydrocarbons separations
- Cleaning compounds
- Cyanoacrylate and polyacrylonitrile
- Polyethylene terephthalate (PET) production equipment cleaning
- Steam-set printing inks

- **OTHER APPLICATIONS:**

DEG is often used in

- dyes,
- adhesives
- dry-wall compounds,
- glass cleaners,
- water-based paints,

In addition, it is also used as binders for foundry sand molding, and a lubricant for glass and cement-grinding. In addition, it is also used as humectants in textile fiber, paper, leather, adhesives and glue applications.