



Crystal India

APPLICATIONS OF TRIETHYLENE GLYCOL

- **Polyester Resins:**

TEG is used as a reactant in the manufacture of polyester resins. TEG is 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, and include boat and marine, construction materials, automotive and aircraft bodies, luggage, furnishings, appliances, textiles 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.

- **Gas Dehydration & Treating:**

TEG is commonly used in natural gas hydration and treating applications to remove water and impurities. Triethylene glycol (TEG) has excellent hygroscopicity and low volatility. Because of these characteristics TEG is in high demand in the natural gas drying market.

- **Chemical Intermediate:**

TEG is a versatile chemical intermediates 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

- **Heat Transfer Fluid:**

Triethylene glycol (TEG) due to its low freezing point, freezing point depressant and high boiling point is predominantly used in heat transfer fluids.

- **Solvents:**

Triethylene glycols (TEG) have excellent solvent properties. TEG is used as solvents in several applications:

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

- **Other Applications:**

Triethylene glycol (TEG) may be used directly as a plasticizer or modified by esterification. As a plasticizer, TEG is used in the manufacture of:

- Safety glass
- Separation membranes (silicone rubber, polyvinyl acetate, cellulose triacetate)
- Ceramic materials (resistant refractory plastics, molded ceramics)