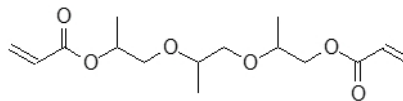


TRIPROPYLENE GLYCOL DIACRYLATE



INTRODUCTION

Tripropylene glycol diacrylate (TPGDA-A) is a difunctional reactive diluent with a branched alkyl polyether backbone. Polymerization occurs when TPGDA-A is exposed to sources of free radicals. It is widely used as a primary diluent in the formulation of ultraviolet light (UV) and electron beam (EB) curable coatings and inks. TPGDA-A is a grade of tripropylene glycol diacrylate with lower inhibitor content than the standard grade (TPGDA).

PERFORMANCE HIGHLIGHTS

TPGDA-A is characterized by:

- Low viscosity
- Good diluency of acrylate oligomers
- Hydrophobicity

UV/EB curable formulated products containing TPGDA-A are characterized by:

- Good flexibility
- Improved water resistance
- Good cure speed without brittleness

The actual properties of UV/EB cured products also depend on the selection of other formulation components such as oligomers, additives and photo initiators.

SUGGESTED APPLICATIONS

TPGDA-A finds application in UV/EB cured ink and coating systems. TPGDA-A is an especially useful reactive diluent when water resistance and low viscosity are required.

- Dilution of viscous oligomers or polymers

SPECIFICATIONS

Acid value, mg KOH/g	max. 0.4
Appearance	Clear liquid
Color, Apha	max. 50
Residual solvent, wt. %	max. 0.09
Viscosity at 25°C, mPa.s	10 - 15
Water, wt. %	max. 0.1

TYPICAL PHYSICAL PROPERTIES

Density, g/cm ³ at 25°C	1.03
Flash point, Setaflash, °C	> 100
Formula weight	300
Inhibitor (MEHQ) ⁽¹⁾ , ppm	≤ 250
⁽¹⁾ The inhibitor content is certified to be ≤250 ppm of MEHQ, but is not routinely measured.	

PRECAUTIONS

Before using TPGDA-A, see the Safety Data Sheet (SDS) for information on the identified hazards of the material and the recommended personal protective equipment and procedures.

STORAGE AND HANDLING

Care should be taken not to expose the product to high temperature conditions, direct sunlight, ignition sources, oxidizing agents, alkalis or acids. This might cause uncontrollable polymerization of the product with the generation of heat. Storage and handling should be in stainless steel, amber glass, amber polyethylene or baked phenolic lined containers. Procedures that remove or displace oxygen from the material should be avoided. Do not store this material under an oxygen free atmosphere. Dry air is recommended to displace material removed from the container. Wash thoroughly after handling. Keep container tightly closed. Use with adequate ventilation.

See the SDS for the recommended storage temperature range for TPGDA-A.