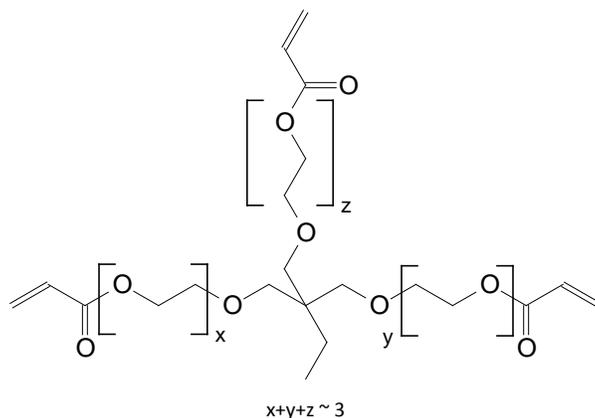


# TMPEOTA

Trimethylolpropane Ethoxy Triacrylate

February 2017



## INTRODUCTION

Trimethylolpropane ethoxy triacrylate (TMPEOTA) is a reactive diluent commonly used in ultraviolet light (UV) and electron beam (EB) energy curable coatings and inks. TMPEOTA can be used to impart crosslinking to energy curable coatings and inks while maintaining a degree of flexibility and toughness. Of the common triacrylate diluents used in energy curable formulations, TMPEOTA exhibits the highest reactivity and the greatest viscosity reduction of oligomers.

## PERFORMANCE HIGHLIGHTS

TMPEOTA is characterized by:

- Low viscosity
- Low vapor pressure
- High acrylate functionality

UV/EB curable formulated products containing TMPEOTA are characterized by:

- Rapid cure response
- Good flexibility
- Improved adhesion

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

## SUGGESTED APPLICATIONS

TMPEOTA is a reactive diluent compatible with a wide range of acrylated resins used in UV/EB curing applications. Hardness, abrasion resistance, and high gloss properties make TMPEOTA popular for overprint varnishes, inks, coatings and electronic applications such as photoresists.

## SPECIFICATIONS

	VALUE
Acid value, mg KOH/g, max.	0.4
Appearance	Clear liquid
Color, Pt-Co scale <sup>(1)</sup> , max.	60
Residual solvent, wt. %, max.	0.09
Viscosity, 25°C, cP/mPa·s	60-80
Water, wt. %, max.	0.1

## TYPICAL PHYSICAL PROPERTIES

Density, g/ml at 25°C	1.10
Flash point, Setaflash, °C	>100
Formula weight	428

## CHEMICAL ABSTRACT SERVICE NUMBER

28961-43-5

Poly{[oxy-1,2-ethanediyl, alpha, -hydro-omega, -[1-oxo-2-propenyl) oxy]} -ether with 2-ethyl-2(hydroxymethyl)-1,3-propanediol (3:1)

(1) Also referred to as APHA color.

## PRECAUTIONS

Before using TMPEOTA, 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 TMPEOTA.

Please refer to the allnex Guide to Safety and Handling of Acrylate Oligomers and Monomers for additional information on the safe handling of acrylates.

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