



INTRODUCTION

Trimethylolpropane triacrylate (TMPTA) is a trifunctional monomer which polymerizes when exposed to sources of free radicals. It is compatible with a wide range of acrylated resins. Cured films containing TMPTA provide hardness, good solvent and abrasion resistance and high gloss properties.

PERFORMANCE HIGHLIGHTS

TMPTA is characterized by:

- Low viscosity
- Light colour

UV/EB cured products based on TMPTA are characterized by the following performance properties:

- Good cure response
- High crosslink density
- Hardness
- Good solvent and abrasion resistance

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

TMPTA is a cost effective diluent compatible with the wide range of acrylated resins used in radiation curing applications. Its ability to enhance reactivity, hardness, gloss, and chemical and wear resistance properties makes TMPTA popular for overprint varnishes, inks, coatings, traffic striping paints and rubber crosslinking.

SPECIFICATIONS

Acid value, mg KOH/g	max. 0.4
Appearance	Clear liquid
Color, Apha	max. 50
Residual solvent, wt. %	max. 0.09
Viscosity, 25°C, mPa.s	80 - 135
Water, wt. %	max. 0.1

TYPICAL PHYSICAL PROPERTIES

Density, g/ml at 25°C	1.10
Flash point, Setaflash, °C	> 100
Formula weight	296

STORAGE AND HANDLING

Care should be taken not to expose radiation curable products to temperatures exceeding 40°C for prolonged periods or to direct sunlight. This might cause uncontrollable polymerization of the product with generation of heat.

Storage and handling should be in stainless steel, amber glass, amber polyethylene or baked phenolic lined containers. Do not store this material under an oxygen free atmosphere. Use dry air to displace material removed from the container. This material should not be stored for more than 2 years.

PRECAUTIONS

The following is a summary of the precautions to be taken when handling this product. Please refer to the Safety Data Sheet for further details.

The toxicological properties of this material have not been fully determined. Products of this type can be expected to be eye and skin irritant and have the potential to cause sensitization or other allergic responses. Appropriate precautions should be taken to avoid eye and skin contact and to avoid inhalation of the aerosols or vapours. Consult the relevant Safety Data Sheet for appropriate handling procedures and protective equipment prior to using this or any other material referred to in this bulletin.

See Safety Data Sheet for emergency and first aid procedures