

PHOTOMER® 4072 Trimethylolpropane (3PO) Triacrylate

Product Data Sheet

General Information

PHOTOMER® 4072 is an aliphatic trifunctional acrylate of low viscosity, low skin irritancy and high crosslinking reactivity. It exhibits less shrinkage and better adhesion to a variety of substrates versus typical first generation crosslinkers, and is recommended as a direct replacement for TMPTA and EOTMPTA in many UV/EB curable applications.

Chemical Data

Chemical Name : Trimethylolpropane [3 PO] triacrylate (TMP3POTA)

 Molecular weight
 : 471 g/mol

 CAS No.
 : 53879-54-2

 EINECS No.
 : 500-123-4

Specification

Appearance	Visual	Clear yellow liquid
Viscosity @ 25 °C	Brookfield, ISO 2555	65 - 95 mPa.s
Colour (APHA)	ISO 6271	≤ 250
Acid Value		≤ 1 mg KOH/g
Moisture content	Karl Fischer, ISO 4317	≤ 0.4 %
Volatile content	GC Analysis	≤ 0.3 %

Additional Typical Properties

Specific Gravity @ 25 °C approx. 1.055 g/cm³
Surface Tension 33.0 dynes/cm
Refractive Index @ 25 °C approx. 1.464
Shrinkage 8 - 12 %
Inhibitor ≤ 600 ppm MEHQ

Flash Point >200 °F

Application

PHOTOMER® 4072 enhances flexibility while maintaining excellent chemical, scuff, and abrasion resistance in UV/EB curable coating formulations. It is recommended for use in UV/EB curable industrial coatings, roller coatings, overprint varnishes, clear coatings and printing ink applications.

Formulated product properties will depend on the actual reactive monomers, oligomers and additives utilized.

Features & Benefits

PHOTOMER® 4072 viscosity reducing and solvency characteristics are very similar to that of TMPTA.

Storage & Handling

Storage must be in a cool, shaded, well ventilated and dry area away from direct sources of heat and sunlight. PHOTOMER® 4072 may crystallize or stratify if subjected to cold or freezing conditions. Allow to warm to room temperature and mix well before using.

Subject to appropriate storage under the usual storage and temperature conditions, our products are durable for at least 12 months.

PHOTOMER® 4072 should be handled in accordance with good industrial practice. Further information is provided in the material safety data sheet which is available on request.

Regulatory Status

TSCA (USA), EU (Europe), IECSC (China), DSL (Canada), AICS (Australia), NZloC (New Zealand), ECL (Korea), ECN (Korea)

Packaging

PHOTOMER® 4072 is available in 200 kg drums.

Disclaimer

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