

# Glycol Ether PMA-EL

(Electronic Grade)

CAS No. 108-65-6

## Description

*Glycol Ether* PMA-EL is a colorless, combustible liquid with low toxicity. It has a characteristic ester odor and is soluble in water to the extent of 18% at 20°C. It has excellent solvency for a variety of substances including acrylic, nitrocellulose and urethane coating resins. *Glycol Ether* PMA can be used a replacement for ethylene glycol (E-series) ether acetates, particularly EEA and EMA.

## Product Identification

- Chemical Name 1-methoxy-2-propanol acetate
- Chemical Family propylene glycol ether acetate
- Other Names: methoxy propanol acetate  
propylene glycol methyl ether acetate  
methoxy propanol acetate
- Chemical Formula  $C_6H_{12}O_3$

## Typical Purity Levels

- Purity, min 99 wt. %
- Acidity (Acetic Acid), m x 0.2 wt. %
- Color, APHA, max 10
- BHT 50-75 ppm
- PM, max 0.10 wt. %
- Water, max 0.05 wt. %
- Chlorides, Cl, max 300 ppb
- Silver, Ag, max 0 ppb
- Aluminum, Al, max 50 ppb
- Gold, Au, max 50 ppb
- Calcium, Ca, max 50 ppb
- Cadmium, Cd, max 50 ppb
- Chromium, Cr, max 50 ppb
- Copper, Cu, max 50 ppb
- Iron, Fe, max 50 ppb
- Mercury, Hg, max 50 ppb
- Potassium, K, max 50 ppb
- Magnesium, Mg, max 50 ppb
- Manganese, Mn, max 50 ppb
- Sodium, Na, max 50 ppb
- Nickel, Ni, max 50 ppb
- Lead, Pb, max 50 ppb
- Zinc, Zn, max 50 ppb

For the most current product specification, please call 1-888-777-0232 or your local sales contact.

## Typical Properties

- Vapor Pressure, mm Hg @ 20°C 3.8
- Evaporation Rate (BuAc=100) 34
- Boiling Point (@ 760 mm Hg) 145°C
- Flash Point (SETA) 114°F
- Specific Gravity (20/20°C) 0.969

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## Application

In the electronics market, *Glycol Ether* PMA-EL has replaced EEA in photoresist formulations used in semiconductor processing. In these processes, it is used in positive photoresist formulations.

*Glycol Ether* PMA may also be used in solvent systems for cleaning and degreasing circuit boards and removing solder flux. *Glycol Ether* PMA shows very broad solvency. Its solvency characteristics generally match those of chlorinated solvents more closely than do glycol ethers and alcohols.

## Product Quality

As the semiconductor industry continually reduces chip architecture, Lyondell chemical has maintained high purity wet process chemicals to support the emerging technology. With high purity and metal levels below 50 ppb, *Glycol Ether* PMA-EL is well suited for electronics applications.

## Storage

General industry practice is to store *Glycol Ether* PMA in carbon steel vessels. Avoid contact with air when storing for long periods of time. Store only in tightly closed, properly vented containers away from heat, sparks, open flame or strong oxidizing agents. Use only non-sparking tools. Ground containers before beginning transfer. Electrical equipment should conform to national electric code. Handle empty containers carefully. Flammable combustible residue remains after emptying. Store in properly lined steel or stainless steel to avoid slight discoloration from mild steel. Glycol ethers should never be stored or handled in copper or copper alloys. This product may absorb water if exposed to air.

## Safety and Handling

*Glycol Ether* PMA has a flash point of 116°F. It is a flammable liquid as defined under SARA Title 111, section 311/312 hazard category but is not subject to the reporting requirements of SARA Title 111, section 313. Undue exposure or spillage should be strictly avoided as a matter of good practice. Refer to the Material Safety Data Sheet for more specific information.

Hazard ratings are summarized as follows:

	NPCA HMIS	NFPA
Health	2	0
Flammability	2	2
Reactivity	1	0
Personal Protection	B*	

\*Personal protection recommendation should be made with consideration of specific work place conditions. The health hazard rating is based on eye irritation potential.

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(Mono) Propylene Glycol (Mono) Methyl Ether Acetate

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Users should review the applicable Safety Data Sheet before handling the product.

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