Propylene Glycol (Mono) Methyl Ether

ARCOSOLV® PM-EL Solvent
Electronic Grade
CAS No. 107-98-2

Description
ARCOSOLV® PM-EL is a colorless, flammable liquid with low toxicity, having a mild, pleasant odor. It is completely water soluble, miscible with a number of organic solvents, and has good solvency for a number of substances. ARCOSOLV PM and blends can be used as replacements for ethylene glycol (E-series) ether acetates, particularly EEA and EMA.

Product Identification
- Chemical Name: 1-methoxy-2-propanol
- Chemical Family: propylene glycol ether
- Other Names: propylene glycol methyl ether, 1-methoxy-2-hydroxypropane, methoxy propanol, 2-methoxy-1-methyl ethanol
- Chemical Formula: C₄H₁₀O₂

Typical Purity Levels
- Purity, min: 99 wt.%
- Acidity [Acetic Acid], max: 0.01 wt.%
- Color, APHA, max: 10
- β isomer, max: 0.5 wt.%
- Water, max: 0.10 wt.%
- Chlorides, Cl, max: 500 ppb
- Silver, Ag, max: 50 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

Please contact customer service for the most up to date specifications at 1-888-777-0232.

Application
In the electronics market, ARCOSOLV PM-EL is used in conjunction with other solvents [like DMF and/or acetone] in the manufacture of laminates for printed circuit boards. Additionally, ARCOSOLV PM-EL may be used in the cleaning and removal of solder flux and masks, and in blends as an edge bead remover.

Physical Properties
- Vapor Pressure, mm Hg @ 25°C: 12.6
- Evaporation Rate (BuAc=100): 66
- Boiling Point (L@ 760 mm Hg): 117°C
- Flash Point [TCC]: 32°C /89°F
- Specific Gravity [25/25°C]: 0.9195
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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, ARCOSOLV PM-EL is well suited for electronics applications.

Commitment

Lyondell Chemical Company is committed to quality and customer service. With production and shipment facilities world wide, order fulfillment is but a phone call away. In addition our customer service and technical staff are always available to provide you assistance. In the US, please call 1-888-777-0232.

Storage

General industry practice is to store ARCOSOLV PM 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

ARCOSOLV PM has a flash point of 89°F. It is a flammable liquid as defined under SARA Title III, 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 ARCOSOLV PM for more specific information.

Hazard ratings are summarized as follows:

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<tr>
<th></th>
<th>NPCA HMIS</th>
<th>NFPA</th>
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</thead>
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<tr>
<td>Health</td>
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<td>0</td>
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<tr>
<td>Flammability</td>
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<tr>
<td>Personal Protection</td>
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*Personal protection recommendation should be made with consideration of specific work place conditions.

This information is believed to be accurate as of the date of publication. It is the sole responsibility of the customer to determine whether the product is appropriate and suitable for the customer’s specific use. Specific end uses may require approval by appropriate regulatory agencies. Lyondell Chemical Company makes no warranties, express or implied, regarding the product or information contained therein. The applicable Material Safety Data Sheet should be reviewed by customer before handling the Lyondell Chemical product. Lyondell Chemical Company disclaims any liability for infringement of any patent by reason of customer’s use of any Lyondell Chemical Company products in combination with other materials or in any process.