

# Technical Data Sheet

## Eastman EastaPure™ PM Acetate

### Applications

- Electronic chemicals
- Lcd displays
- Process solvents

### Key Attributes

- Excellent resin solubility
- High Purity/Low Trace Metals
- High assay
- Viscosity control

### Product Description

Eastman EastaPure™ PM acetate (propylene glycol monomethyl ether acetate) is a slow evaporating solvent with both ether and ester functional groups. It is a colorless liquid with a mild odor. Eastman EastaPure™ PM acetate solvent is being offered for photoresist formulations. PM acetate can also be used in edge bead removal after spin coating processes.

### Typical Properties

Property	Typical Value, Units
<b>General</b>	
Acidity as Acetic Acid	0.02 wt % max.
Alcohol Content	0.1 wt % max.
Assay	99.5 % min
Autoignition Temperature	354 °C (670 °F)
Blush Resistance @ 80°F (26.7°C)	92 % RH
Boiling Point @ 760 mm Hg	140-150 °C (284-302 °F)
Color Pt-Co	10 max.
Critical Pressure	29.7 ATM
Critical Temperature	324.7 °C
Critical Volume	421 ml/g·mol
Dilution Ratio Toluene	2.6
VMP Naphtha	0.8
Electrical Resistance	5 Megohms
Empirical Formula	C <sub>6</sub> H <sub>12</sub> O <sub>3</sub>
Evaporation Rate (ether = 1)	30.2
(n-butyl acetate = 1)	0.4
Expansion Coefficient, per °C @ 20°C	0.0054
Flammability Limits in Air, % by Volume Lower @ 78°C	1.3 Vol %
Upper @ 139°C	13.1 Vol %
Flash Point Setaflash Closed Cup	46 °C (114 °F)
Freezing Point	-67 °C (<-89 °F)

Hansen Solubility Parameters	
Hydrogen Bonding	4.8
Nonpolar	7.6
Polar	2.7
Total	9.4
Heat of Combustion	-752.6 kcal/g·mol
Heat of Vaporization	9414 cal/g·mol
Liquid Heat Capacity @ 54°C	56.42 cal/(g·mol)(°C)
Liquid Viscosity @ 25°C	1.1 cP (mPa·s)
Molecular Weight	132.2
Nitrocellulose Solubility	Active
Refractive Index @ 20°C	1.4
Specific Gravity @ 20°C/20°C	0.968-0.971
Solubility	
in Water, @ 20°C	20 %
Water in, @ 20°C	5.9 %
Surface Tension @ 20°C	26.4 dynes/cm
Upper Limits for Trace Metals	
Aluminium (Al)	10 ppb
Barium (Ba)	10 ppb
Cadmium (Cd)	10 ppb
Calcium (Ca)	10 ppb
Chromium (Cr)	10 ppb
Cobalt (Co)	10 ppb
Copper (Cu)	10 ppb
Gallium (Ga)	10 ppb
Germanium (Ge)	10 ppb
Iron (Fe)	10 ppb
Lead (Pb)	10 ppb
Lithium (Li)	10 ppb
Magnesium (Mg)	10 ppb
Manganese (Mn)	10 ppb
Nickel (Ni)	10 ppb
Potassium (K)	10 ppb
Silver (Ag)	10 ppb
Sodium (Na)	10 ppb
Strontium (Sr)	10 ppb
Titanium (Ti)	10 ppb
Zinc (Zn)	10 ppb
Vapor Density (air = 1)	4.6
Vapor Pressure	
@ 20°C	2.8 mm Hg
@ 55°C	3 kPa
Viscosity, Neat @ 25°C	1.07 cP
Water	0.05 wt % max.
Wt/Vol @ 20°C	0.96 kg/L (8.06 lb/gal)

## Comments

Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

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