

# Technical Data Sheet

## Eastman EastaPure™ MPK

### Applications

- Lcd displays
- Process solvents

### Key Attributes

- Excellent resin solubility
- High Purity/Low Trace Metals
- High assay
- Inert - Nonfood use

### Product Description

Eastman EastaPure™ MPK solvent is being offered for positive and negative photoresist formulations. It is a high-purity low-trace metal solvent and is tested to measure selected critical trace metals in parts-per-billion levels. EastaPure™ MPK can also be used in edge bead removal process after spin coating.

The chemical substances for this product are listed as Inert Ingredients Permitted for Use in Nonfood Use Pesticide Products under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). For details on specific permissions, [click here](#).

### Typical Properties

Property	Typical Value, Units
<b>General</b>	
Acidity as Acetic Acid	0.01 wt %
Alcohol Content	0.3 wt % max.
Assay	90-95 % min
Autoignition Temperature	449.0 °C (840 °F)
Azeotropes	
BP	83.3 °C (181.9 °F)
Wt % Water	19.5 wt %
Blush Resistance @ 80°F (26.7°C)	70 % RH
Boiling Point @ 760 mm Hg	101-105 °C (214-221 °F)
Color Pt-Co	15 max.
Critical Pressure	36.5 ATM
Critical Temperature	287.9 °C
Critical Volume	301 ml/g·mol
Dilution Ratio	
Toluene	3.9
VMP Naphtha	1
Electrical Resistance	0.3 Megohms
Empirical Formula	C <sub>5</sub> H <sub>10</sub> O
Evaporation Rate (ether = 1)	5.3
(n-butyl acetate = 1)	2.3
Expansion Coefficient, per °C	

@ 20°C	0.0012
Flammability Limits in Air, % by Volume	
Lower @ 66°C	1.56 Vol %
Upper @ 121°C	8.7 Vol %
Flash Point	
Tag Closed Cup	8.0 °C (46 °F)
Freezing Point	-86.0 °C (-123 °F)
Hansen Solubility Parameters	
Hydrogen Bonding	2.3
Nonpolar	7.8
Polar	3.7
Total	8.9
Heat of Combustion	-688.3 kcal/g·mol
Heat of Vaporization	7998 cal/g·mol
Liquid Heat Capacity	
@ 25°C	44 cal/(g·mol)(°C)
Liquid Viscosity	
@ 25°C	0.7 cP (mPa·s)
Maximum Incremental Reactivity (MIR)	3.07
Methyl Isobutyl Ketone	5-10 % max
Molecular Weight	86.13
Nitrocellulose Solubility	Active
Refractive Index	
@ 20°C	1.3902
@ 25°C	1.387-1.393
Specific Gravity	
@ 20°C/20°C	0.806-0.809
Solubility	
in Water, @ 20°C	3.1 wt %
Water in, @ 20°C	4.2 wt %
Surface Tension	
@ 20°C	26.6 dynes/cm
TLV PPM 1998	200
Upper Limits for Trace Metals	
Aluminum	20 ppb
Barium	20 ppb
Cadmium	20 ppb
Calcium	20 ppb
Chromium	20 ppb
Cobalt	20 ppb
Copper	20 ppb
Gallium	20 ppb
Germanium	20 ppb
Iron	20 ppb
Lead	20 ppb
Lithium	20 ppb
Magnesium	20 ppb
Manganese	20 ppb
Nickel	20 ppb
Potassium	20 ppb
Silver	20 ppb
Sodium	20 ppb
Strontium	20 ppb
Titanium	20 ppb
Zinc	20 ppb

Vapor Density (air = 1)	2.9
Vapor Pressure @ 20°C	27.8 mm Hg
@ 55°C	19.2 kPa
Viscosity @ 25°C	0.68 cP
Water	0.05 wt % max.
Wt/Vol @ 20°C	0.81 kg/L (6.74 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.

*Eastman and its marketing affiliates shall not be responsible for the use of this information, or of any product, method, or apparatus mentioned, and you must make your own determination of its suitability and completeness for your own use, for the protection of the environment, and for the health and safety of your employees and purchasers of your products. No warranty is made of the merchantability of fitness of any product, and nothing herein waives any of the Seller's conditions of sale.*

4/3/2018 3:36:57 PM