EASTMAN

Technical Data Sheet

Eastman™ EEP

Applications

- Architectural coatings
- Auto oem
- Auto plastics
- Auto refinish
- Automotive
- Electronic chemicals
- Furniture
- General industrial coatings
- Graphic arts
- Industrial maintenance
- Marine
- Metal furniture
- Packaging inks non food contact
- Paints & coatings
- Polymer modification
- Process additives
- Process solvents
- Protective coatings
- Truck/bus/rv
- Wood coatings

Key Attributes

- Excellent solvent activity
- High blush resistance
- High electrical resistance
- Inert - Nonfood use
- Low surface tension
- Low water solubility
- Non-HAP
- Non-SARA
- REACH compliant
- Readily biodegradable
- Slow evaporation rate
- Urethane grade

Product Description

Eastman™ EEP (Ethyl 3-Ethoxypropionate) is a slow evaporating ether-ester solvent with excellent activity for a wide range of coating polymers. Its linear structure and propionyl group in the center of the molecule give this material a combination of desirable properties not found in other solvents. These include a slow evaporation rate, good resistance to solvent popping in baking applications, a moderate odor, low surface tension and high electrical resistance. In addition, it yields low polymer solution viscosities when compared to solvents with similar evaporation rates, provides excellent solvent release from coating films, and gives exceptional flow and leveling with a wide range of coatings. It is supplied as a urethane grade solvent.

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	Test Method	Typical Value, Units
General		
Acidity		
as Acetic Acid		0.02 wt % max.
Assay		99.0 wt % min.
Autoignition Temperature	E 659	377 °C (711 °F)
Azeotropes		
BP		97 °C (206.6 °F)
Wt % Water		63 wt %
Blush Resistance		
@ 80°F (26.7°C)		94 % RH
Boiling Point @ 760 mm Hg		

Dry Point	172 °C (342 °F)
Initial	165 °C (329 °F)
Color	
Pt-Co	5 max.
Critical Pressure	26.8 ATM
Critical Temperature	335.8 °C
Critical Volume	462 ml/g·mol
Dilution Ratio	
Toluene	1.8
VMP Naphtha	0.6
Electrical Resistance	20 Megohms
Empirical Formula	$C_7H_{14}O_3$
Evaporation Rate	
(ether = 1)	100.8
(n-butyl acetate = 1)	0.12
Expansion Coefficient, per °C	
@ 20°C	0.00117
Flammability Limits in Air, % by Volume	
Lower @ 88°C	1.05 Vol %
Flash Point	
Setaflash Closed Cup	58 °C (136 °F)
Freezing Point	<-50 °C (<-58 °F)
Hansen Solubility Parameters	
Hydrogen Bonding	4.3
Nonpolar	7.9
Polar	1.6
Total	9.1
Heat of Combustion	-898.7 kcal/g·mol
Heat of Vaporization	10170 cal/g·mol
Liquid Heat Capacity	
@ 39°C	68.49 cal/(g*mol)(°C)
Liquid Viscosity	
@ 25°C	1.2 cP (mPa·s)
Maximum Incremental Reactivity (MIR)	3.61
Molecular Weight	146.19
Nitrocellulose Solubility	Active
Refractive Index	
@ 20°C	1.4074
Solubility	
in Water, @ 20°C	2.9 wt %
Water in, @ 20°C	2.2 wt %
Specific Gravity	
@ 20°C/20°C	0.95
Surface Tension	
@ 23°C	27.0 dynes/cm
Vapor Density	
(air = 1)	5
Vapor Pressure	
@ 25°C	1.5 mm Hg
@ 55°C	1.2 kPa
Wt/Vol	
@ 20°C	0.95 kg/L (7.91 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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