EASTMAN

Technical Data Sheet

Eastman™ Methyl Isobutyl Ketone

Applications

- Aerospace
- Agriculture intermediates
- Architectural coatings
- Auto oem
- Auto plastics
- Auto refinish
- Automotive
- Automotive protective coatings
- Commerical printing inks
- Furniture
- General industrial coatings
- Graphic arts
- Gravure printing inks
- Industrial maintenance
- Intermediates
- Marine
- Paints & coatings
- Polymer modification
- Process solvents
- Protective coatings
- Wood coatings

Key Attributes

- Excellent solvent activity
- High dilution ratio
- Inert - Food use with limitations
- Inert - Nonfood use
- Low density
- Low surface tension
- Low water miscibility
- Medium evaporation rate
- Readily Biodegradable

Product Description

Eastman™ Methyl Isobutyl Ketone (MIBK) is a medium-evaporating solvent. It is an active solvent for many synthetic resins including cellulosics, vinyl copolymers, acrylics, alkyds, polyesters, and epoxies. It is very useful in developing high-solids coatings because of its combination of high solvent activity and low density.

In addition to its use as a solvent for inks, coatings, and adhesives, MIBK is used as an extraction agent in the dewaxing and deoiling of petroleum products. It is also used in the manufacture of germicides, fungicides, pharmaceuticals, electroplating solutions, and as a denaturant in many ethanol formulations.

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

Typical Properties

Property	Typical Value, Units
General	
Acidity as Acetic Acid	 0.01 wt % max.
Assay	99.0 wt % min.
Autoignition Temperature	449 °C (840 °F)
Azeotropes BP Wt % Water	 87.9 °C (190.2 °F) 24.3 wt %
Blush Resistance @ 80°F (26.7°C)	 78 % RH

Boiling Point @ 760 mm Hg	
Dry Point	117 °C (243 °F)
Initial	114 °C (237 °F)
Color	
Pt-Co	15 max.
Critical Pressure	32.3 ATM
Critical Temperature	298.2 °C
Critical Volume	369 ml/g·mol
Dilution Ratio	
Toluene	3.5
VMP Naphtha	1
Electrical Resistance	0.4 Megohms
Empirical Formula	$C_6H_{12}O$
Evaporation Rate	
(ether = 1)	7.6
(n-butyl acetate = 1)	1.6
Expansion Coefficient, per °C	
@ 20°C	0.00115
Flash Point	
Tag Closed Cup	16 °C (60 °F)
Freezing Point	-84 °C (-119 °F)
Hansen Solubility Parameters	
Hydrogen Bonding	2
Nonpolar	7.5
Polar	3
Total	8.1
Heat of Combustion	-834.1 kcal/g·mol
Heat of Vaporization	8324 cal/g·mol
Liquid Heat Capacity	
@ 25°C	51.53 cal/(g*mol)(°C)
Liquid Viscosity	
@ 20°C	0.6 cP (mPa·s)
Maximum Incremental Reactivity (MIR)	4.31
Molecular Weight	100.16
Nitrocellulose Solubility	Active
Refractive Index	
@ 20°C	1.3958
Specific Gravity	
@ 20°C/20°C	0.802
Solubility	
in Water, @ 20°C	2 wt %
Water in, @ 20°C	1 wt %
Surface Tension	
@ 20°C	23.6 dynes/cm
TLV PPM 1998	50
Vapor Density	
(air = 1)	3.5
Vapor Pressure	
@ 20°C	15 mm Hg
@ 55°C	11.7 kPa
Water	0.10 wt % max.
Wt/Vol	
@ 20°C	0.8 kg/L (6.67 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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