EASTMAN

Technical Data Sheet

Eastman™ MAK

Applications

- Auto oem
- Auto refinish
- General industrial coatings
- Herbicides int
- Paints & coatings
- Process solvents

Key Attributes

- Excellent solvent activity
- High dilution ratio
- Inert - Food use with limitations
- Inert - Nonfood use
- Low density
- Low surface tension
- Non-HAP
- Non-SARA
- REACH compliant
- Readily Biodegradable
- Slow evaporation rate
- Urethane grade

Product Description

Eastman™ MAK (Methyl n-Amyl Ketone) has a high solvent activity, slow evaporation rate, low density, low surface tension, and high boiling point. These properties make MAK a very good solvent for cellulosic lacquers, acrylic lacquers, and high-solids coatings. Because regulations limit the weight of solvent per gallon of coating, formulators favor the use of low-density solvents that help reduce the VOC content of a coating. MAK is lower in density than ester, aromatic hydrocarbons, and glycol ether solvents with similar evaporation rates. The low density and high activity of MAK are significant advantages when formulating high-solids coatings to meet VOC guidelines. MAK is also used as a polymerization solvent for high solids acrylic resins.

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	0.02 wt % max.
Assay	99.0 wt % min.
Autoignition Temperature	393 °C (740 °F)
Azeotropes	
BP	95 °C (203.0 °F)
Wt % Water	48 wt %
Blush Resistance	
@ 80°F (26.7°C)	93 % RH
Boiling Point @ 760 mm Hg	
Dry Point	153.5 °C (308 °F)
Initial	147 °C (297 °F)
Color	
Pt-Co	10 max.
Critical Pressure	28.8 ATM
Critical Temperature	338.3 °C

Critical Volume	421 ml/g·mol
Dilution Ratio	
Toluene	3.9
VMP Naphtha	1.2
Electrical Resistance	0.4 Megohms
Empirical Formula	$C_7H_{14}O$
Evaporation Rate	
(ether = 1)	30.2
(n-butyl acetate = 1)	0.4
Expansion Coefficient, per °C	
@ 20°C	0.00104
Fire Point	46 °C (115 °F)
Flammability Limits in Air, % by Volume	
Lower @ 66°C	1.11 Vol %
Upper @ 121°C	7.9 Vol %
Flash Point	
Tag Closed Cup	39 °C (102 °F)
Tag Open Cup	46 °C (115 °F)
Freezing Point	-33 °C (-27 °F)
Hansen Solubility Parameters	
Hydrogen Bonding	2
Nonpolar	7.9
Polar	2.8
Total	8.6
Heat of Combustion	-979.8 kcal/g·mol
Heat of Vaporization	9229 cal/g·mol
Liquid Heat Capacity	
@ 27°C	59.69 cal/(g*mol)(°C)
Liquid Viscosity	
@ 25°C	0.8 cP (mPa·s)
Maximum Incremental Reactivity (MIR)	2.8
Molecular Weight	114.19
Nitrocellulose Solubility	Active
Refractive Index	
@ 20°C	1.408
Specific Gravity	
@ 20°C/20°C	0.818
Solubility	
in Water, @ 20°C	0.5 wt %
Water in, @ 20°C	1.3 wt %
TLV PPM 1998	50
Surface Tension	
@ 20°C	26.1 dynes/cm
Vapor Density	
(air = 1)	3.9
Vapor Pressure	
@ 20°C	2.14 mm Hg
@ 55°C	2.8 kPa
Wt/Vol	
@ 20°C	0.82 kg/L (6.8 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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