Data Sheet

Product name

Methyl Ethyl Ketone (MEK)

Product code

S123A - Manufactured in the US
724 100 - Available in Canada

Product category

Solvent – Oxygenated - Ketone

Description

Methyl Ethyl Ketone (MEK) is a colorless, low viscosity liquid with a mild odor similar to that of acetone. It is completely miscible with many organic liquids, but miscible with water to only a limited extent. With natural and synthetic resins, MEK produces solutions with low viscosity and high solids content.

Sales specifications

Property	Units	Method	Min	Max
Purity	%w	Q-008-S	99.5	
Alcohol as SBA	%w	Q-041-S		0.5
Color, Pt-Co	Pt-Co	D1209		10
Acidity as Acetic acid	%w	D1613		0.003
Water	%w	D1364		0.10
Appearance (SFSM)		D4176	Substantially Free of Suspended Matter	
#Initial Boiling Point	°F [°C]	D1078	173 [78.5]	
#Dry Point	°F [°C]	D1078		178 [81.0]
#Specific Gravity @20/20C		D4052	0.805	0.807
#Specific Gravity @25/25C		D4052	0.801	0.803
#Nonvolatile Matter	mg/100ml	ACS		5

 # Indicates guaranteed property - product meets the specified limits but are not routinely tested.

Typical properties

Property	Unit	Method	Result
VOC content100% (density @60°F)	g/L	D4052	805
Molecular weight	g/mol	-	72
Refractive index @20°C	-	D1218	1.379
Flash point (TAG)	°F [°C]	D56	23 [-5]
Autoignition temperature	°F [°C]	E659	961 [516]
Explosion limit in air, Lower	% v/v	-	1.8
Explosion limit in air, Upper	% v/v	-	10
Vapour pressure @20°C	mmHg [kPa]	-	71 [9.5]
Vapour pressure @50°C	mmHg [kPa]	-	270 [36]
Saturated vapour concentration @20°C	g/m^3	calculated	280

Typical properties continued	Property	Unit	Method	Result
	Relative evaporation rate (nBuAc=1)	-	D3539	3.7
	Pour Point	°C	D97	-87
	Surface tension @20°C	mN/m	-	24.8
	Viscosity, dynamic @20°C	mPa.s	D445	0.42
	Miscibility, solvent in water	% m/m	-	25
	Miscibility, water in solvent	% m/m	-	12
	Azeotrope, boiling point	°F [°C]	-	164 [73.4]
	Azeotrope, composition	% m/m	-	88.7
	Coefficient of cubic expansion	10^-4/°C	-	12.7
	Heat of combustion	kJ/kg	-	31453
	Heat of evaporation	kJ/kg	-	484
	Specific heat @20°C	kJ/kg/°C	-	2.19
	Thermal conductivity @20°C	W/m/°C	-	0.146
	Dielectric constant @20°C	-	-	18.5
	Electrical conductivity @20°C	pS/m	D4308	2*10^7
	Dilution ratio: Toluene	-	D1720	4.1
	Solubility parameter: Hildebrand	(cal/cm^3)^0.5	-	9.3
	Solubility parameter: Fractional polarity	-	-	0.514
	Solubility parameter: Hydrogen bonding index	-	-	10.5
Requirements product meets	• ASTM D-740, Type I requirements • Type II Urethane Grade available via special quality agreement			