TECHNICAL DATA SHEET

METHYL ETHYL KETONE (URETHANE GRADE)

Product Name:
Methyl Ethyl Ketone, MEK,
Ethyl Methyl ketone, 2-Butanone, Butanone

Product category: Ketone

Molecular Formula: C4H8O

Structural Formula: CH3 CH3 – CH2 – C=O

CAS No.: 78-93-3 **EC No.:** 201-159-0
HS Code: 29141200 **UN No.:** 1193

Description:

Methyl ethyl ketone, MEK, a low boiling, fast evaporating solvent is a colorless, stable liquid, partially miscible with water. Methyl ethyl ketone displays exceptionally good solvency for most resinous materials including epoxy resins, nitro-cellulose, ethyl cellulose, cellulose-aceto-butyrate, alkyd, polyester, polyurethane, acrylic resins, vinyl polymers and copolymers. Also readily dissolved are practically all synthetic and natural resins commonly employed in the formulation of printing inks, lacquers, and other types of coatings. In addition, its complete miscibility with most other solvents as well as alcohols and hydrocarbon diluents makes methyl ethyl ketone a highly desirable and versatile solvent in surface coating applications.

PHYSICAL PROPERTIES

Property	Unit	Method	Value
Molecular Weight	g/mol	Calculated	72
Distillation, IBP	°C	ASTM D1078	78.5
Distillation, DP	°C	ASTM D1078	81.0
Melting point	°C		-87.3
Boiling Point	°C		80
Density @20°C	Kg/L	ASTM D 4052	0.804-0.806
Refractive Index @20°C		ASTM D1218	1.377-1.379
Specific Heat @20°C	kJ/kg/°C		2.19
Azeotrope with Water: Boiling Point	°C		73.4
Azeotrope with Water: Solvent Content	% m/m		88.7

Flash Point (Abel)	**°C**	**IP 170**	**-9**
Explosion Limit: Lower	% v/v		1.8
Explosion Limit: Upper	% v/v		11.5
Miscibility @20°C: Solvent in Water	% m/m		25
Miscibility @20°C: Water in Solvent	% m/m		12
Viscosity @20°C	mPa.s	ASTM D445	0.42
Coefficient of Cubic Expansion @20°C	(10^-4)/°C		13

ANALYSIS ITEMS

ANALYSIS ITEMS	**INDEX**	**TEST METHOD**
PURITY %(M/M) ≥	99.7	GC
WATER CONTENT %(M/M) ≤	0.05	ASTM D1364
TOTAL ALCOHOLS %(M/M) ≤ (ALCOHOLS WITH SEC-BUTANOL)	0.3	ASTM D2804 (Gas Chromatography)
APPEARANCE	CLEAR AND COLORLESS, LIQUID	VISUAL
COLOR (Pt-Co) ≤	10	ASTM D1209
ACIDITY AS ACETIC ACID %(M/M) ≤	0.003	ASTM D1613
NON-VOLATILE MATTER (MG/100ML) ≤	5	ASTM D1353
Distillation, IBP ℃ ≥	78.5	ASTM D1078
Distillation, DP ℃ ≤	81.0	ASTM D1078
DENSITY,20℃ (KG/L)	0.804-0.806	ASTM D4052
Refractive index @ 20℃	1.377-1.379	ASTM D1218
ODOR	SPECIAL ODOR, NO RESIDUAL ODOR	SMELL

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