

Typical Product Specifications & Properties

Diisobutyl Ketone

CAS Number: : 108-83-8

Specifications	Limits
Density	0.8076
Surface Tension	24.54 dynescm
Auto/Self Ignition Temperature	temp. 396 c
Practically Insoluble	in water
Melting Point	-46 c
Antoine Constant B #	1476.40 kPa, C
Specific Heat @20C	2.0 kJ/kg/C
Antoine Constant A #	6.07029 kPa, C
Molecular weight	142 g/mol
Purity	94.0% m/m min
Water	0.1% m/m
Density @ 20C	0.808 kg/L

Specifications	Limits
Coefficient of Cubic Expansion @ 20C	10 10^-4/C
Refractive Index @ 20° C	1.413
Boiling Point	168 C
Antoine Constant C #	195.000 kPa, C
Vapour Pressure @ 20C	0.16 kPa
Vapor Pressure @ 50C	1.1 kPa
Flash Point (Abel)	50 C
Auto Ignition Temp	345 C
Dielectric Constant @ 20C	9.9
Surface Tension @ 20C	23 mN/m
Viscosity @ 20C	0.92 mPa.s
Hydrogen Bonding Index	9.8

Specifications	Limits
Fractional Polarity	0.123
Dilution Ration SBP 100/140	0.8
Azeotrape with Water: Boiling Point	97.3 C
Azeotrope with water: Solvent Content	49.0% m/m
Color	<10 Pt-Co
Relative Evaporation Rate (nBuAc=1)	0.18
Saturated Vapour Concentration @ 20C	9 g/m^3
Lower Explosion Limit	0.8% v/v
Upper Explosion Limit	6.2% v/v
Electrical Conductivity @ 20C	4 uS/m
Freezing Point	-42 C
Hildebrand Solubility Parameter	7.8 (cal/cm^3)^1/2

Specifications	Limits
Dilution Ration: Toluene	1.5
Heat of Combustion (Net) @25C	37500 kJ/kg
Miscibility @20C: Solvent in water	0.05% m/m
Relative Evaporation Rate (Ether=1)	48
Thermal Conductivity @ 20C	0.13 W/m/C
Miscibility @20C: Water in solvent	0.45% m/m
Temperature Limits for Antoine Equation	+20 to +170 C
Heat of Vaporization @Tboil	277 kJ/kg
pH	neutral
Vapor Pressure	1.65 mm hg
Refractive Index	1.4130 (20 c)
Odor	mild sweet peppermint odor

Specifications	Limits
Flash Point	(cc) 49 c

Chemical Structure

