

ACETONE

Identifiers

Product name	ACETONE
Chemical name of the substance:	Propan-2-one
CAS:	67-64-1
EC-Nr.:	606-001-00-8
REACH Registration Number:	01-2119471330-49-XXXX
Chemical Sum Formula	C ₃ H ₆ O
Chemical Formula	CH ₃ COCH ₃

Typical Physical Properties

This data provided for those properties are typical values, and should not be construed as sales specifications.

Property	Method	Value	Unit
Purity, min.	GC	99,5	%m/m
Water	ASTM D1364	0,2	%m/m
Acidity (as Acetic Acid)	ASTM D1613	0,001	%m/m
Density at 20°C	ASTM D4052	0,791	kg/l
Specific Gravity at 20°C/20°C	ASTM D4052	0,792	-
Specific Gravity at 25°C/25°C	ASTM D4052	0,788	-
Coefficient of Cubic Expansion at 20°C	Calculated	14	10 ⁻⁴ /°C
Refractive Index at 20°C	ASTM D1218	1,359	-
Color	ASTM D1209	<5	Pt-Co
Boiling Point	-	56	°C
Relative Evaporation Rate (nBuAc=1) Relative	ASTM D3539	5,6	-
Relative Evaporation Rate (Ether=1)	DIN 53170	2,0	-
Antoine Constant A #	-	6,25478	kPa. °C
Antoine Constant B #	-	1216,69	kPa. °C
Antoine Constant C #	-	230,275	kPa. °C
Temperature Limits for Antoine Equation #			°C -
Vapor Pressure at 20°C	Calculated		kPa
Vapor Pressure at 50°C	Calculated		kPa
Saturated Vapor Concentration at 20°C	Calculated		g/m ³
Volatile Organic Compound (VOC)	EU / EPA		g/l
Flash Point (Abel)	IP 170		°C
Auto Ignition Temperature	ASTM E659		°C
Lower Explosion Limit	-		%v/v -
Upper Explosion Limit	-		%v/v -
Electrical Conductivity at 20°C	ASTM D4308		pS/m
Dielectric Constant at 20°C	-		-
Freezing Point	-	-95	°C

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Property	Method	Value	Unit
Surface Tension at 20°C	-	24	mN/m
Viscosity at 20°C	-	0,32	mPa.s
Hildebrand Solubility Parameter	-	10,0	(cal/cm ³) ^{1/2}
Hydrogen Bonding Index	-	12,5	-
Fractional Polarity	-	0,695	-
Heat of Vaporization at Tboil	-	525	kJ/kg
Heat of Combustion (Net) at 25°C	-	29000	kJ/kg
Specific Heat at 20°C	-	2,16	kJ/kg/°C
Thermal Conductivity at 20°C	-	0,16	W/m/°C
Miscibility at 20°C: Solvent in water	-	complete	%m/m
Miscibility at 20°C: Water in solvent	-	complete	%m/m
Azeotrope with Water: Boiling Point	-	non-azeotropic	°C
Azeotrope with Water: Solvent Content	-	non-azeotropic	%m/m
Molecular Weight	-	58	g/mol

Hazard Information

For detailed Hazard Information please refer to the Safety Data Sheet on 3d-basics.com/downloads

Storage Handling

Provided proper storage and handling precautions are taken we would expect ACETONE to be technically stable for at least 12 months. For detailed advice on Storage and Handling please refer to the Safety Data Sheet on 3d-basics.com/downloads.

Disclaimer

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