

Acetone

Description

Acetone (also known as dimethyl ketone and 2-propanone) is a clear, colorless, low-boiling, flammable, volatile liquid characterized by rapid evaporation and a faintly aromatic, sweetish odor. It is readily miscible in most organic solvents and completely miscible, in all proportions, in water. Acetone is one of the simplest aliphatic ketones, and is an excellent solvent for a wide range of gums, resins, waxes, fats, greases, oils, dyestuffs and cellulose. It is widely used as a chemical intermediate in the production of methyl isobutyl ketone and other solvents, and in the production of such important chemicals as bis-phenol-A and methyl methacrylate. It is also used in the manufacture of a wide variety of coatings and plastics.

Physical and Chemical Properties

Typical Properties	Specifications
CAS Number	67-64-1
Chemical Formula	(CH ₃) ₂ CO
Other/Generic Names	Dimethylketone; 2-propanone; dimethylketal
Appearance	Clear water white liquid
Physical State	Liquid
Molecular Weight	58.08
Odor	Sweetish
Density @ 20°C (68°F)	6.63 lb/US gal
Dielectric Constant @ 25°C (77°F)	20.70
Specific Gravity (25°C/25°F) (77°F/77°F)	Not over 0.7880
Vapor Density (Air = 1.0)	2
Vapor Pressure @ 20°C (68°F)	181.7 mmHg (3.51 psi)
Viscosity @ 15°C (59°F)	0.3371 cP
Water Solubility (miscibility)	Soluble in all proportions in water
Threshold Limit (toxicity)	1000 ppm
Explosive Limits (by volume in air)	Lower: 2.6%, Upper: 12.8%
Flash Point, Closed Cup	-17.8°C (0°F)
Flash Point, Open Cup	-9°C (15.8°F)
Autoignition Temperature	465°C (869°F)
Boiling Point (760 mm)	56.1°C (133°F)
Melting Point (Freezing Point)	-94.6°C (-138°F)
Coefficient of Cubical Expansion	0.0015 ml/ml °C @ 55°C
Color	Colorless

The values presented in this data sheet are typical values and are not to be interpreted as product specifications.

Contact AdvanSix

To learn more about acetone, visit

AdvanSix.com/chemicalintermediates

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