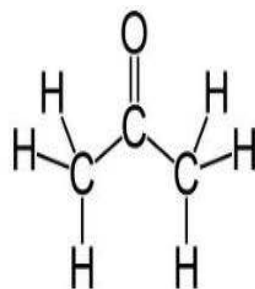


Acetone



Introduction

Acetone is 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 distilled water.

It is widely used as a chemical intermediate in the production of methyl isobutyl keton and other solvents, and in the production of such important chemicals as bisphenol A and methyl metaacrylate. It is also used in the manufacture of a wide variety of coatings and plastics.

Specification

Item(Unit)	Sales Specifications
Appearance(-)	Clear
Color(Pt/Co)	5max
Specific Gravity 20/20°C(kg/m)	0.790~0.793
Water content(wt.%)	0.3max
Water Miscibility(-)	Complete
Acidity as Acetic acid(wt.%)	0.002max
Peramanganate time(minutes)	120min
Non Volatile Matter(g/100ml)	0.001max
Distillation range(°C)	1.0max incl. 56.1°C
Purity(wt.%)	99.5min

Typical Properties

Empirical formula	CH ₃ COCH ₃		Vapor pressure, mmHg	0°C	69.2
Molecular weight	58.08			20°C	181
Appearance	Colorless liquid			30°C	282.5
Density@20°C	0.7898g/ml, 6.59lb/gal			40°C	420.5
Specific gravity	20/4°C	0.792		56.1°C	760
	10/20°C	0.8025	Viscosity, cps	0°C	0.401
	15/20°C	0.7968		20°C	0.331
	20/20°C	0.7911		50°C	0.256
	25/20°C	0.7854			
	30/20°C	0.7797			
Odor	Fragrant, mint-like				
PH	Approx. 7(I.e., 1 vol. Acetone in 1 vol. Water)				
Electrical conductivity, μm/cm	0.1~0.2				
Boiling point, @760mm	56.2°C(133.2°F)				
Autoignition temperature	465°C(869°F)				
Flammable limits @25°C, vol. %	2.2~13				
Flash point°C	Tag open cup	-20			
	Closed cup	-9			
Heat of combustion	Kcal/mole	427			
	cal/g	7,362			
	Btu/mole	1,691			
	Btu/lb	13,240			
	Btu/gal	87,119			
Heat of Fusion	Kcal/mole	1.358			
	cal/g	23.4			
	Btu/mole	0.092			
	Btu/lb	5.377			
	Btu/gal	42			
Heat of vaporization @56.1°C (Kcal/Kg)	-122				
Melting point, °C	-95				
Refractive index, @20°C	1.359				
Solubility in water, wt%	Complete				
Surface tension, Dynes/cm	0°C	26.2			
	20°C	23.7			
	40°C	21.2			
Evaporation rate,(Butyl Acetate=1	>7.0				