ACETONE

GKN GROUPS
Empowering Growth

CAS Number: 67-64-1

Other Names: Acetone, Dimethyl carbonyl, vβ-Ketopropane, Propanone, Dimethyl formaldehyde, Pyroacetic spirit (archaic), Ketone propane

Formula: (CH3)2CO

PRODUCT INTRODUCTION

Acetone (systematically named propanone) is an organic compound with the formula (CH3)2CO. It is a colorless, volatile, flammable liquid, and is the simplest ketone.

PHYSICAL AND CHEMICAL PROPERTIES

Physical State And Appearance	Liquid
Odor	Fruity, mint-like. Fragrant, Ethereal
Molecular Weight	58.08 g/mole
Color	Colorless. Clear
Boiling Point	56.2°C (133.2°F)
Critical Temperature	235°C (455°F)
Flash Point	−17 °C
Melting Point	-95.35 (-139.6°F)
Specific Gravity	0.79 (Water = 1)
Vapor Pressure	24 kPa (@ 20°C)
Vapor Density	2 (Air = 1)
Odor Threshold	62 ppm
Water/Oil Dist. Coeff	The product is more soluble in water; log(oil/water) = -0.2
Dispersion Properties	See solubility in water
Solubility	Easily soluble in cold water, hot water
Acetone wt%	94 min
MEK, wt%	2.0 max
MIPK (methyl isopropyl ketone) wt%	0.5 max
Water, wt%	3.0 max
Specific Gravity @ 20/20C wt%	0.82 max
Non-volatile Residue wt%	0.001 max

APPLICATIONS

- Acetone is a good solvent for most plastics and synthetic fibres including those used in laboratory bottles made of polystyrene, polycarbonate and some types of polypropylene. It is used as a volatile component of some paints and varnishes.
- Although flammable itself, acetone is also used extensively as a solvent for the safe transporting and storing of acetylene, which cannot be safely pressurized as a pure compound.
- Acetone is used in a variety of general medical and cosmetic applications and is also listed as a component in food additives and food packaging. Acetone is commonly used in the skin rejuvenation process in medical offices and medical spas. Since the days of ancient Egypt, people have been using chemexfoliation methods, also known as chemical peeling, to rejuvenate skin.
- In the laboratory, acetone is used as a polar aprotic solvent in a variety of organic reactions, such as SN2 reactions. The use of acetone solvent is also critical for the Jones oxidation. It is a common solvent for rinsing laboratory glassware because of its low cost and volatility; however, it does not form an azeotrope with water.
- It can be used as an artistic agent; when rubbed on the back of a laser print or photocopy placed face-down on another surface and burnished firmly, the toner of the image transfers to the destination surface.

PACKAGING OPTIONS

Tanks
Drums