

## Methyl ethyl ketone (MEK)

### Technical Data Sheet

#### Methyl ethyl ketone (MEK)

Methyl ethyl ketone, also known as 2-butanone or butanone, is an important organic compound. It is a colorless liquid with an odor similar to acetone. It is soluble in water, ethanol, and diethyl ether, and it is miscible with oils.

#### Chemical Data:

	Chemical Name	Molecular Formula	CAS No.	Class	UN No.
MEK	Methyl ethyl ketone	C <sub>4</sub> H <sub>8</sub> O	78-93-3	3	1193

#### Applications:

**1. Solvent:** MEK has excellent solubility and drying characteristics, with a dissolution capacity comparable to acetone, but a higher boiling point and lower vapor pressure. It has good solubility for various natural resins such as rosin and camphor, cellulose esters such as nitrocellulose, ethyl cellulose, cellulose acetate, and synthetic resins such as alkyd resin, phenolic resin, and polyvinyl acetate. Therefore, it is widely used in coatings, inks, adhesives, lubricating oil dewaxing and other industries.

**2. Organic synthesis raw materials:** MEK can be used to synthesize chemical products such as methyl ethyl ketone peroxide, methyl amyl ketone, methyl ethyl ketone oxime, diacetyl, methyl pseudoionone, etc. These products are widely used in the fields of fragrances, catalysts, anti-peeling agents, antioxidants, and corrosion inhibitors.

**3. Other uses:** MEK can also be used as a solvent for dewaxing and deoiling of refined lubricating oil, as well as a developer for integrated circuit lithography in the electronics industry. It is also a raw material for the preparation of the acaricide imidacloprid.

#### Physical Properties:

Item	Value	Unit
Appearance	Colorless liquid	/
Boiling point (normal pressure)	79.6	°C
Melting point	-85.9	°C
Flash point (closed)	-7.2	°C
Flash point (opening)	1.67	°C
Heat of combustion	2441.8	kJ/mol
Ignition temperature	404	°C
Purity	99.7 Min	wt%
Moisture	0.05 Max	wt%
Chroma (platinum-cobalt)	10 Min	/
Density (20°C)	0.804~0.806	g/cm <sup>3</sup>
Acidity (as acetic acid)	0.003 Max	wt%
Alcohol (as butanol)	0.05 Max	wt%

#### Standard Packing:

- 165kgs/Iron Drum, 80 drums/20'FCL, 152 drums/40'FCL