

Acetone – universal

DOMO Chemicals produces Acetone as a by-product of Hock phenol synthesis (cumene hydroperoxide process).

Properties	Units	Limits	Methods
Specification			
Acetone (without water) ¹	% w/w	min. 99.5	DOMO 81 - 101 (GC)DIN 5687
Water ¹	% w/w	max. 0.2	DIN 51777, Part 1
Colour ¹	Hazen/APHA	max. 5	DIN EN ISO 6271
Resistance to KMnO ₄ ¹	hours	min. 9	DOMO 81 - 05
Acidity calculated as Acetic acid ¹	mg/kg	max. 15	DOMO 81 - 04
Acidity calculated as Carbon dioxide ¹	mg/kg	max. 6	DOMO 81 - 04
Methanol ¹	mg/kg	max. 500	DOMO 81 - 101 (GC)DIN 5687
Benzene ¹	mg/kg	max. 10	DOMO 81 - 101 (GC)DIN 5687
Total Organic Impurities ¹	mg/kg	max. 1000	DOMO 81 - 101 (GC)DIN 5687
Density ²	g/cm ³	0.789 - 0.792	DIN 51757, Procedure A
Refractive Index ²		1.358 - 1.360	DIN 51423, Part 1

Note 1: All properties are reported with each delivery. **Note 2:** Parameter are only for your information. There is no guarantee because parameter are not continuously observed during the production process. When stored in mild steel, at a temperature of ≈ 30 °C, Acetone is storage stable for one year.

Sales unit			
	Bulk single tank trucks		
	Bulk railcars		

Properties: At room temperature, acetone is a colourless liquid with a characteristic sweet smell.

Due to its special bipolar properties, acetone is very easy to mix with water and many organic solvents. Fire and explosion are the main hazards when dealing with acetone. Acetone forms highly flammable vapour-air mixtures, has a strong degreasing effect and causes dryness of the skin. Inhaled acetone causes bronchial irritation, headache and fatigue; in high doses it has a narcotic effect. Shipping is done mainly via road tankers, containers and rail tank cars.

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General properties

Chemical characterisation

Phenol	
CAS No	67-64-1
EC No. (EINECS)	200-662-2
Index No.	606-001-00-8
Harmonized System Code No.	2914 11 00
REACH Registration No.	01-2119471330-49-XXXX
Formula	C ₃ H ₆ O
Stabilizers	none

Appearance

Physical state	liquid
Colour	colourless (liquid)
Odour	

General properties

Unit

Value

Methods

Remark

Chemical properties

Water solubility	g/ml	completely		
Dyn. Viscosity	mPa*s	0.32		

Physical properties

Melting point/range	°C	-94.7		
Boiling point/range	°C	56.05		
Flash point	°C	-17		closed cup method
Ignition temperature	°C	465		
Oxidizing properties		no		
Vapour pressure	hPa	240		at 20 °C
		800		at 50 °C
Explosion limits – lower (LEL)	vol%	2.50		
Explosion limits – upper (UEL)	vol%	14.30		

Applications: DOMO sells acetone with Pharma Grade and Technical Grade. Due to its excellent miscibility with many substances, acetone is used as a solvent or as a raw material in chemical syntheses. A major use is as a raw material for the production of polymethyl methacrylate (PMMA). In addition, acetone is used for the production of bisphenol A (BPA). The solvent properties of acetone are also used in the production of agents for the removal of oils, resins, paints and construction foam, etc. In dentistry, acetone is used as a cleaning agent for tooth surfaces and root canals.

Disclaimer: These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.

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