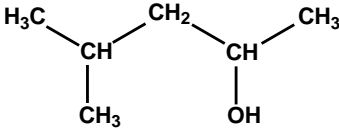


METHYL ISOBUTYL CARBINOL

- Acronym : MIBC
- Synonym : 4-Methylpentan-2-ol
- CAS number : 108-11-2
- EC number : 203-551-7
- REACH registration number : 01-2119473979-13-0000

MAIN PROPERTIES

	Values	Arkema methods	Norms references
Composition	$C_6H_{14}O$: 		
Appearance at 20°C	Clear liquid free from suspended materials	LCR 1116	ASTM D 4176
Color (Pt-Co)	≤ 10	LCR 1002	ASTM D 1209
Purity (% by weight)	≥ 98.5	LCR 2161	GC
MIBK content (% by weight)	≤ 0.40	LCR 2161	GC
Water Content (% by weight)	≤ 0.08	LCR 1007	ASTM D 1364
Acidity as acetic acid (% by weight)	≤ 0.005	LCR 1004	ASTM D 1613
Density at 20°C (g/cm ³)	0.806 - 0.808	LCR 1062	ASTM D 4052
Distillation range (°C)	130.0 - 133.0 (*)	LCR 1123	ASTM D 1078

The above commercial specifications are guaranteed ; they were established using the test methods which were in force at the plant at the time of despatch of the product, and are in accordance with any applicable revision references. . (*) guaranteed values not reported on analysis certificates.

MAIN APPLICATIONS

- **Lubricants** : Lubricant additive (hydraulic fluids). Manufacturing of zinc dialkyldithiophosphate (antiwear agent).
- **Mining industry** : Flotation frother for gold, silver, copper, lead, zinc... miscellaneous ores. Extraction of petroleum and natural gas.
- **Paints and varnishes** : Gloss, levelling and blush resistance properties.
- **Coatings** : Nitrocellulose lacquers. Brushing and hot spray lacquers. UV curable and photoresist coatings.
- **Inks** : **Dispersing agent** for textile inks. Jet inks. Photolithography.
- **Pharmaceuticals** : Antimicrobial and antitumor agent. Putrefaction remover of decayed teeth.
- **Chemicals synthesis** : Raw material for plasticizers. Dehydrogenation of copper catalysts. Ester preparations and alcohol oxidations.
- **Others** : Surfactants. Dewaxing agent. Flavor component for food and beverages. Photoreceptors manufacturing.

METHYL ISOBUTYL CARBINOL

PACKAGING

Methyl isobutyl carbinol is supplied in bulk by road tankers, isocontainers, IBC of net weight 800 kg, and in drums of net weight 170 kg .

STORAGE / SAFETY / PRECAUTIONS DURING USE / HANDLING

Please refer to the safety data sheet before any use. Typical shelf life at 25°C is 12 months.

PHYSICAL DATA

Molecular weight.....	102.18
Boiling point at 1013 hPa	131.7°C
Vapor pressure at 20°C	4.9 hPa
Relative evaporation rate (n-butyl acetate = 1)	0.33
Freezing point	- 90 °C
Viscosity at 20°C.....	5.2 mPa.s
Surface tension at 20°C	23 mN/m
Refractive index at 20 °C.....	1.4113
Latent heat of vaporization	406 kJ/kg
Specific heat (liquid at 20°C)	2.4 kJ/kg/K
Heat of combustion at 25°C.....	35830 kJ/kg
Flash point (closed cup)	41 °C
Explosivity limits in air (lower / upper).....	1.0 / 5.5 % (v/v)
Electrical conductivity at 22 °C	0.012 µS/m
Water solubility at 20 °C : - MIBC in water (mass fraction)	1.7 %
- water in MIBC (mass fraction).....	5.8 %
Azeotrope with water : - boiling point at 1013 hPa	94.3 °C
- water content (% w/w))	43.3 %
Hansen solubility parameters at 25°C (δ_t , δ_d , δ_p , δ_h)	19.8 / 15.2 / 2.4 / 12.4 MPa ^{1/2}