Celanese
The chemistry inside innovation™

$C_5H_{12}O_2$

3-Methoxy Butanol

KEY FEATURES:

- Colorless, neutral liquid with a mild odor
- Good dissolving power
- Miscible with the common organic solvents

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3-Methoxy Butanol

PRODUCT DESCRIPTION

3-methoxy butanol is a colorless, neutral liquid with a mild odor. It is miscible with water and the commonly used organic solvents.

3-methoxy butanol has good dissolving power for many natural resins, nitrocellulose, benzyl cellulose, polyvinyl butyrals, aldehyde, ketone and indene resins, phenol formaldehyde, urea-formaldehyde and melamine formaldehyde resins, carbamic acid ester resin, alkyd and maleic resins, the commonly used plasticizers and most fats and drying oils such as linseed oil, castor oil and wood oil.

3-methoxy butanol does not dissolve petroleum oils, waxes, rubber, chlorinated rubber, acetyl cellulose, polyisobutylene, polystyrene, non-post-chlorinated polyvinyl chloride (coatings), vinyl acetate/vinyl chloride/dicarboxylic acid copolymer, polyvinyl formal, polyvinyl carbazole and coumarone resin. Ethyl cellulose, cellulose acetobutyrate, polyvinyl acetates and polyvinyl isobutyl ether swell considerably in **3-methoxy butanol**.

Dammar, ester resins and post-chlorinated polyvinyl chloride (coatings) are partially soluble in **3-methoxy butanol**.

APPLICATIONS

Besides good dissolving power, **3-methoxy butanol** as a low-volatility solvent has similar advantages to n-butanol. It is used in nitrocellulose brush lacquers to improve brush ability and flow. Small additions considerably reduce the viscosity of alkyd resin and oleo resinous paints and improve their brush ability.

In conventional and aqueous paints, the addition of **3-methoxy butanol** retards skinning.

3-methoxy butanol can be used with n-butyl acetate to achieve special effects in relation to dissolving power, drying time and flow. **3-methoxy butanol** can also be used in combination with Butoxyl® (3-methoxy-n-butylacetate). **3-methoxy butanol** can also be used in oil and gas applications.

TYPICAL PROPERTIES	Unit	
Boiling range at 1013 hPa (DIN 53 171)	°C	157
Melting temperature	°C	-85
Refractive index n_D at 20°C (DIN 51 423, part 2)		1.415 – 1.416
Viscosity at 20°C (DIN 51 562)	mPa • s	3.7
Solubility in water at 20°C	g/l	∞
Water absorption at 20°C	% (w/w)	∞
Vapor pressure at 20°C	hPa	0.17
Specific heat at 20°C	kJ/kg • K	0.53
Heat of vaporization at 1013 hPa	J/g	116
Dielectric constant at 20°C		14.4
Specific electrical conductivity at 20°C	$S \cdot cm^{-1}$	$1.2 \cdot 10^{-6}$
Evaporation number (DIN 53 170, diethyl ether = 1)		160