

# Isobutanol

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## Technical Data Sheet

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**BASF**  
The Chemical Company

**Formula** C<sub>4</sub>H<sub>10</sub>O  
**Molecular Weight** 74.1  
**PRD Number** 30034839  
**CAS Registry Numbers** 78-83-1

Product Specifications	Value	Test Method
Assay, wt. %, min.	99.5	GC
Acidity as acetic acid, wt. %, max.	0.003	ASTM D-1613
Water, wt. %, max.	0.05	ASTM D-1364
Color, Pt-Co Units, max.	5	ASTM D-5386

### Description

Isobutanol is a clear, mobile, neutral liquid with a characteristic odor. It is miscible with all common solvents but is only sparingly soluble in water.

### Packaging

Available only in bulk.

Typical and Physical Properties	
Distillation range, °C, 1 atm	106 – 108
Specific gravity @ 20/20 °C	0.802 – 0.804
Non-volatiles, wt. %, max.	0.005
Appearance	Clear and colorless

### Safety

Isobutanol may irritate the skin and eyes. Inhalation of vapors or mists may irritate the respiratory tract and may cause a narcotic effect.

Always refer to the Material Safety Data Sheet (MSDS) for detailed information on safety.

### Storage and Handling

Isobutanol can be stored in tanks of normal carbon steel. In this case, however, steps must be taken to exclude moisture from the atmosphere to avoid impairment or product quality (increase moisture content and discoloration by rust). Stainless steel is recommended for more severe storage conditions.

Isobutanol can corrode aluminum above 60 °C; therefore, it is only possible to use tanks made of aluminum or its alloys at lower temperatures.

Drums containing the product should be kept tightly closed in a well-ventilated place.

Always refer to the Material Safety Data Sheet (MSDS) for detailed information on handling and disposal.

## Applications

Isobutanol is an excellent solvent for acid-curable lacquers and baking finishes derived from urea, melamine, or phenolic resins.

When added even in small proportions to alkyd resin paints, isobutanol reduces the viscosity and thus improves the brushability and flow.

The applications in which isobutanol can be used are as follows:

- Solvent for printing inks
- Extractant in the production of drugs and natural substances
- Additive in polishes and cleaners
- Solubilizer in the textile industry (additive in spinning baths or carrier for coloring plastics)
- Additive in deicing fluids
- Anti-icing additive in gasoline
- Humectant for cellulose nitrate
- Dehydrating agent (entrainer in azeotropic distillation)
- Feedstock in the production of glycol ethers
- Feedstock for the production of isobutyl acrylate
- Feedstock in the production of flotation aids (isobutyl zanthate)
- Starting material for the production of wear inhibitors and anti-corrosion additives in engine oils (e.g., zinc diisobutyl dithiophosphate)

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