

Product Specifications

High-Purity Isobutanol

Synonyms: isobutanol, isobutyl alcohol, 2-methyl-1-propanol	Chemical Formula: $C_4H_{10}O$
Molecular Weight: 74.12 g/mol	CAS Number: 78-83-1

Properties	Units	Limits	Test Methods
Appearance	—	Clear and free from suspended matter	Visual; ASTM D4176
Color by Pt-Co Scale	Pt-Co	5 max	ASTM D1209; ISO 6271
Water by Karl Fischer	wt %	0.1 max	ASTM D1364; ISO 760
Acidity (as CH_3COOH)	wt %	0.001 max	ASTM D1613; ISO 2887
Isobutanol Content (Dry Basis)	wt %	99.5 min	GC

Further Properties	Units	Typical Values	Test Methods
Density at 20°C	g/mL	0.801–0.803	ASTM D4052; ISO 12185
Distillation at 101.3 kPa:			
Initial Boiling Point	°C	106.0	ASTM D1078; ISO 918
Dry Point	°C	109.0	
Residue on Evaporation	mg/100 mL	1	ASTM D1353; ISO 759

Isobutanol

Isobutanol, Isobutyl Alcohol, 2-Methyl-1-Propanol

Product Description

Gevo Renewable Isobutanol is fully renewable and meets all of the purity and performance requirements of isobutanol derived from conventional petroleum sources. Isobutanol is a clear, colorless liquid with a characteristic odor and slow evaporation rate used primarily as a solvent in coating applications and a precursor in the production of isobutyl esters. Gevo Renewable Isobutanol can replace 100 percent of conventional isobutanol in all applications. Because isobutanol has similar properties to n-butanol, Gevo Renewable Isobutanol may be used as a cost-effective and renewable n-butanol replacement in many n-butanol applications. Gevo Renewable Isobutanol is also a cost-competitive source of renewable butenes and renewable butene derivatives.

Typical Applications

Solvent for:

- Lacquers, paints and coatings
- Herbicides
- Cleaning agents
- Deicing fluids

Chemical intermediate for renewable:

- Isobutyl esters
- Glycol ethers
- Butenes
- Plasticizers
- Gasoline additives

Physical Properties	Units	Value
Molecular Weight	—	74.12
CAS Number	—	78-83-1
Specific Gravity at 20°C	—	0.802
Density at 20°C	lb/gal	6.68
Boiling Point at 760 mm Hg	°C	108
Vapor Pressure at 20°C	mm Hg	7.2
Viscosity at 20°C	cP	3.95
Flash Point, Closed Cup	°C	27.8
Solubility in Water at 20°C	% wt IBA in water	8.5
Solubility in Water at 20°C	% wt water in IBA	15
Partition Coefficient	log P _{oct/wat}	0.8



DISCLAIMER. Properties reported here are typical. Gevo makes no representation that the material in any particular shipment will conform exactly to the values given.