



TECHNICAL DATA SHEET
LITTLE FALLS PLANT – MN/US
VERSION 1.0
09/05/2025

Generic Name: RENEWABLE ISO-BUTANOL

CAS Number: 78-83-1

EINECS Number: 201-148-0

SPECIFICATION:

Product Specification	Limits	Method
Assay % (GC)	≥ 99.5%	ASTM D 6839
Appearance	Clear	ACS
Color APHA (Pt-Co)	≤ 10	ASTM D1209
Density @ 20° C	0.801 – 0.805 g/cm ³	ASTM D4052
Residue after evaporation	≤ 2 mg/100 mL	ASTM D1353
Boiling Range (IBP-FBP)	107 – 109 °C	ASTM D1078
Flash Point (Closed Cup)	~28 °C (82 °F)	ASTM D93
Acidity (as Acetic Acid)	≤ 0.003 wt%	ASTM D1613
Water (w/w)	≤ 0.30% w/w	ASTM E203 (Karl Fischer)

PRODUCT DESCRIPTION/APPLICATION

NUOL Renewable Iso-butanol is a bio-based, sustainable alternative to petrochemical iso-butanol, offering identical physical and chemical properties. It is a clear, colorless liquid with moderate volatility and a mild alcohol odor. It is widely used as intermediate in the manufacture of esters and plasticizers, solvent in coatings, paints, inks, and adhesives, reactant in pharmaceuticals and agrochemicals, feedstock in bio-based jet fuels and other isobutene derivatives.

Its renewable origin makes it suitable for low-carbon applications in green chemistry and circular supply chains. NUOL Renewable Iso-butanol is a versatile organic solvent with the chemical formula C₄H₁₀O. It is a colorless, odorless, and slightly viscous liquid that is soluble in both water and organic solvents.

NUOL Renewable Iso-butanol is a valuable chemical compound with broad applications across multiple industries, offering an environmentally friendly and efficient alternative to

other solvents and carriers. NUOL Renewable Iso-butanol is a 100% green product, making it a green choice for formulators.

HANDLING PRECAUTIONS:

Handle in accordance with good hygiene and safety procedures. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling it. Since empty containers contain product residue and can be dangerous, follow all hazard warnings and precautions even after container is emptied. Keep away from sources of ignition. Avoid spillage, inhalation and contact with eyes and skin. Keep well closed.

When handling NUOL Renewable Iso-butanol, it is essential to use appropriate personal protective equipment (PPE), including gloves, safety goggles, and protective clothing, to prevent skin and eye contact. Work in well-ventilated areas or use local exhaust ventilation to avoid inhalation of vapors. Avoid exposure to high temperatures, open flames, and direct sunlight, as these can affect the stability of the product. Ensure that NUOL Renewable Iso-butanol is stored in tightly sealed containers, in a cool, dry place, away from incompatible substances. In case of skin or eye contact, wash immediately with plenty of water and seek medical attention if necessary.

NUOL Renewable Iso-butanol is flammable and may form explosive vapor-air mixtures. Always consult the Safety Data Sheet (SDS) for detailed handling, storage, and emergency instructions.

SHIPPING CLASSIFICATION

NUOL Renewable Iso-butanol is classified as a flammable liquid under global transport regulations and must be handled and transported in compliance with international hazardous materials guidelines. Ensure all packaging, labeling, and documentation conform to applicable standards:

- UN Number: UN 1212
- Proper Shipping Name: Iso-butanol
- Transport Hazard Class: 3 (Flammable Liquid)
- Applicable Transport Regulations: ADR / IMDG / IATA / ICAO / DOT.

Use only certified containers and carriers authorized for flammable liquids. Ensure all documentation (shipping papers, SDS, labels) is current and compliant. Temperature-controlled transport may be necessary in hot climates to reduce vapor pressure and ensure safe handling. NUOL Renewable Iso-butanol should be shipped only by trained personnel familiar with the transport of hazardous goods. Always verify compatibility of containers with butanol to prevent corrosion or permeation.

REGULATORY STATUS

The components of this material are listed on the U.S. TSCA Inventory, the Canadian Domestic Substance List (DSL) and the European Union REACH.

NUOL Renewable Iso-butanol is chemically identical to petroleum-derived iso-butanol and is subject to the same regulatory frameworks. It complies with key global chemical regulations and may be used in both industrial and consumer applications, depending on local authorization.

Always refer to the relevant local regulations and the Safety Data Sheet (SDS) for guidance on safe handling, use, and disposal.

DELIVERY FORM

Liquid in road tanker, rail tank wagon, ISO-container, flex tank, IBC-container or 200L steel drums.