



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

Generic Name: RENEWABLE ACETONE

CAS Number: 67-64-1

EINECS Number: 200-662-2

SPECIFICATION:

<u>Product Specification</u>	<u>Limits</u>	<u>Method</u>
<u>Assay % (GC)</u>	≥ 99.5 <u>wt%</u>	ASTM D 6810
<u>Appearance</u>	<u>Clear</u>	ACS
<u>Color APHA (Pt-Co)</u>	≤ 10	ASTM D 1209
<u>Specific Gravity @ 20/20°C</u>	0.788–0.792	ASTM D 4052
<u>Residue after evaporation</u>	≤ 1 mg/100 <u>mL</u>	ASTM D 1353
<u>Acidity (as Acetic Acid)</u>	≤ 0.002 <u>wt%</u>	ASTM D 1613
<u>Distillation Range (IBP–FBP)</u>	55.5 – 57°C	ASTM D 1078
<u>Refractive Index (n20D)</u>	1.358 – 1.360	ASTM D 1218
<u>Water</u>	≤ 0.4 <u>wt%</u>	ASTM E203 (Karl Fischer)

PRODUCT DESCRIPTION/APPLICATION

NUOL Renewable Acetone is a high-purity, bio-based alternative to petrochemical acetone, produced through sustainable fermentation of renewable feedstocks such as plant oils, agricultural residues, or sugars. Chemically identical to conventional acetone (C₃H₆O, CAS 67-64-1), Bio Acetone offers a drop-in replacement with identical performance characteristics, while significantly reducing carbon footprint and dependence on fossil resources.

Key Applications:

- Solvent in Coatings and Paints: Excellent solvency power for resins, dyes, and polymers in automotive, wood, and industrial coatings.

- Chemical Intermediate: Used in the production of methyl methacrylate (MMA), bisphenol-A (BPA), and other key intermediates.
- Pharmaceuticals: Employed in API synthesis, extractions, and formulation processes.
- Cosmetics and Personal Care: Suitable for use in nail polish removers and other personal care products, subject to purity and regulatory compliance.
- Cleaning and Degreasing: Ideal for electronic components, metal surfaces, and laboratory equipment.

Advantages of NUOL Renewable Acetone:

- Renewable and sustainable origin (enzymatic ABE process)
- Identical chemical structure and reactivity as fossil-based acetone
- Lower environmental impact and greenhouse gas emissions. Compatible with existing infrastructure and formulations

NUOL Bio Acetone is an optimal solution for companies seeking to decarbonize their supply chains with the best product performance.

HANDLING PRECAUTIONS:

NUOL Renewable Acetone is a flammable, volatile organic solvent and should be handled with appropriate safety precautions, even when derived from renewable sources. Proper industrial hygiene practices must be followed to ensure safe use. Avoid inhalation of vapors and prolonged skin contact. Use only in well-ventilated areas or under local exhaust ventilation. Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Wear suitable personal protective equipment (PPE), including gloves, goggles, and protective clothing as appropriate.

Ground and bond all containers and transfer equipment to prevent static discharge during handling and transfer. Keep the container tightly closed when not in use to prevent evaporation and contamination. Avoid release to the environment. Follow applicable environmental regulations and waste disposal practices.

Store in a cool, dry, well-ventilated area away from incompatible substances such as oxidizing agents, acids, and bases. Store in approved containers, properly labeled, and kept tightly sealed. Temperature control may be necessary to minimize vapor pressure and evaporation in warm climates.

SHIPPING CLASSIFICATION

NUOL Renewable Acetone is classified as a flammable liquid under international transport regulations. Appropriate packaging, labeling, and documentation must be used in compliance with applicable laws and standards for the safe transportation of hazardous materials.

- UN Number: UN 1090

- Proper Shipping Name: Acetone
- 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. Bio Acetone should be shipped only by trained personnel familiar with the transport of hazardous goods.

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 Acetone is chemically identical to conventional acetone (CAS No. 67-64-1) and complies with global regulatory frameworks for industrial chemicals. While its origin is renewable, its classification and handling are consistent with those of fossil-derived acetone.

Chemical Identification:

- Substance Name: Acetone
- CAS Number: 67-64-1 // EC Number (EINECS): 200-662-2
- Molecular Formula: C₃H₆O

Classification & Labeling (GHS/CLP):

- Hazard Class: Flammable Liquid – Category 2
- Signal Word: Danger (H225, H319, H336)

DELIVERY FORM

NUOL Renewable Acetone is supplied in accordance with international standards for the handling and transport of flammable liquids. Packaging options are designed to meet a variety of industrial requirements, ensuring product integrity, safety, and convenience throughout the supply chain. Liquid in road tanker, rail tank wagon, IBC-container or 200-liter net in steel drums.

Store in a well-ventilated, cool, and dry area, away from sources of ignition. Packaging must be kept tightly sealed when not in use to prevent moisture uptake and evaporation. All containers comply with hazardous material transport regulations (UN/ADR/IMDG/IATA).