

TECHNICAL DATA SHEET

Bio-Ethyl Acetate

Version 1.0 · Issuing date: 25.09.2026

1 PRODUCT DESCRIPTION

Bio-ethyl acetate is a colourless, volatile ester with a characteristic fruity odour. It is produced by esterification of bio-based ethanol with bio-based acetic acid; the bio-based content of 100 % is verified by C14 analysis.

The product is chemically identical to fossil-based ethyl acetate and can be used as a drop-in in existing processes without reformulation. It dissolves a wide range of organic substances and is a standard solvent for coatings, printing inks, adhesives and pharmaceutical and food extraction.

2 PRODUCT IDENTIFICATION

Trade name	Bio-Ethyl Acetate
Chemical name	Ethyl acetate (acetic acid ethyl ester)
Synonyms	Ethyl ethanoate, ETAC
CAS No.	141-78-6
EC No.	205-500-4
Molecular formula	$C_4H_8O_2$ ($CH_3COOC_2H_5$)
Molecular weight	88.11 g/mol

3 TYPICAL PROPERTIES

Physical state	liquid
Colour / odour	colourless / fruity
Assay	≥ 99.8 % (w/w)
Density (20 °C)	approx. 0.90 g/cm ³
Boiling point	77 °C
Flash point	-4 °C (closed cup)

Binding limits are given in the specification (PENPET_GREEN_Spec_Ethylacetat).

4 APPLICATIONS

- Coatings – solvent for industrial applications
- Printing inks – gravure and flexo printing, packaging inks
- Adhesives – solvent-based systems; cleaning agents
- Pharmaceuticals – extraction solvent and synthesis
- Food – flavour production and extraction
- Cosmetics – solvent in formulations, nail polish remover
- Laboratory – solvent, chromatography

5 REGULATORY INFORMATION

REACH	registered (manufacturer)
Classification (CLP, harmonised)	Flam. Liq. 2 (H225), Eye Irrit. 2 (H319), STOT SE 3 (H336); EUH066 · Signal word: Danger · GHS02, GHS07
European Pharmacopoeia	compliant with Ph. Eur. (11th edition) – statement on request

Food contact	statement acc. to Regulation (EC) 1935/2004 on request
Allergens	free acc. to Regulation (EU) 1169/2011
Kosher / Halal	yes (manufacturer)
Manufacturer management systems	ISO 9001, ISO 14001

6 SUSTAINABILITY

Bio-based content	100 % (C14 verified)
Feedstock	Bio-ethanol (corn, ISCC certified) and bio-based acetic acid
Production energy source	renewable bioenergy
Certification	ISCC PLUS (Cert. No. ISCC-PLUS-Cert-SE205-00001064)
Product Carbon Footprint	-248 kg CO ₂ e/t (cradle-to-gate, ISO 14067, incl. biogenic carbon uptake)
GHG emissions excl. biogenic uptake	1,691 kg CO ₂ e/t
PCF verification	Ramboll Sweden AB

7 PACKAGING, STORAGE AND TRANSPORT

Packaging	Tank container (20,000–24,000 kg), IBC (1,000 kg), drum (200 kg)
Storage	at room temperature, dry, well ventilated, containers tightly closed
Shelf life	2 years if stored properly
Transport	UN 1173 · Ethyl acetate · Class 3 · Packing group II
Delivery	from Hamburg throughout Europe

8 AVAILABLE DOCUMENTS

- Specification (DE/EN) and technical data sheet (DE/EN) – download at www.penpet.green
- Safety data sheet (DE/EN) and certificate of analysis (CoA) with every delivery
- ISCC PLUS certificate, PCF report (ISO 14067, verified by Ramboll), C14 declaration – on request
- Ph. Eur. compliance statement, food contact and allergen statements – on request

The information in this technical data sheet is based on manufacturer information and our current state of knowledge. It describes the product but does not constitute a guarantee of properties and does not release the user from carrying out their own tests. The agreed specification and the certificate of analysis of the respective delivery are binding. Information on safe handling is given in the safety data sheet.