

2-Ethylhexyl Nitrate

Organic nitrate cetane improver for industrial diesel fuel formulation.

CAS No. 27247-96-7	EC / List No. 248-363-6	Transport Class 9 — Environmentally hazardous
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Product Information

2-Ethylhexyl nitrate is an organic nitrate ester with formula C₈H₁₇NO₃ and molecular weight 175.23 g/mol. It is commonly abbreviated 2-EHN and used in diesel fuel additive packages to improve ignition quality. It is a nitrate ester rather than an inorganic nitrate salt.

Specifications

Parameter	Specification
Appearance	Clear liquid
Color	≤50 APHA
Purity	≥99.5 %
Alcohol	≤0.5 %
Water	≤400 ppm
Acidity as HNO ₃	≤30 ppm
Density at 15°C	0.967 ±0.005 kg/L

Supply limits refer to the identified ZXCHEM technical reference. Reference SDS properties describe the cited material and are not batch test results.

Typical Properties

Property	Typical Value
Molecular formula	C ₈ H ₁₇ NO ₃
Molecular weight	175.23 g/mol

Applications

Diesel cetane improver packages: Organic nitrate component for improving diesel ignition quality. Establish dose response with the selected base fuel and relevant laboratory or engine tests.

Refinery and terminal fuel treatment: Industrial additive for controlled diesel blending operations. Evaluate compatibility with the complete fuel additive package, blending equipment and operating temperature.

Fuel formulation development: Reference ingredient for comparing cetane-improver formulations. Validate storage stability and performance rather than assuming a universal treatment rate.

Packaging / Storage

Item	Information
Packing	208 L iron drums, approximately 195 kg net / ISO tank, approximately 22,000 kg
Storage	Keep tightly closed in a cool, ventilated area, away from heat, flame and direct sunlight. Maintain storage below 60°C as specified by the supply TDS; separate from strong oxidizers and finely divided metals.
Handling	Use controlled transfer, adequate ventilation, grounding and bonding. Wear chemical-resistant gloves and splash protection. Avoid mist and all ignition sources; prevent overheating or heating in a confined system.

Company Contact

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