



**VeryOne<sup>®</sup>**

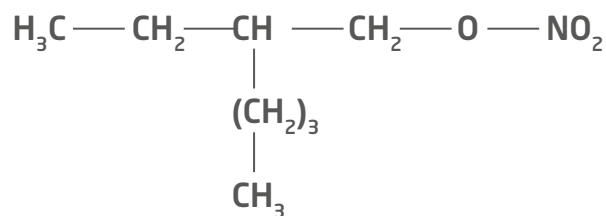
*Cetane Improver*

A EURENCO Company

# VeryOne<sup>®</sup> Cetane Improver 2-EHN



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# VeryOne® Cetane Improver

## (2-ETHYLHEXYL NITRATE)

Molecular formula	:	C <sub>8</sub> H <sub>17</sub> NO <sub>3</sub>
Molecular weight	:	175.23
CAS Nr	:	27247-96-7
EINECS Nr	:	248-363-6

### SYNONYMS

- Nitric acid, 2-ethylhexyl ester (EINECS Name)
- 2-Ethylhexyl Nitrate (2EHN) (IUPAC name)

### ASPECT

Colourless clear liquid.  
Pungent, fatty, fruity ester odour.

### USES

Cetane improver  
(Fuel additive)

### TRANSPORT

Refer to corresponding Safety Data Sheet

### PHYSICAL PROPERTIES

**Boiling point:**  
Decomposition before boiling

**Decomposition Temperature:**

- DSC thermal analysis (6°C/mn):
  - Start: 160°C
  - ONSET: 184°C
  - T° max: 210°C
  - Δ H: 1210 J/g

- RSST (Thermal runaway temperature): 130°C

### Vapour pressure:

4.0-5.3	Pa at 10°C
27	Pa at 20°C
40-53	Pa at 40°C

### Solubility:

- In water: 12.6 mg/l at 20°C
- In hydrocarbons, methanol and typical chlorinated solvents.

### STORAGE

- Store in a ventilated area in tightly closed containers equipped with means of preventing the product from reaching 100°C
- Maximal recommended handling temperature: 60°C
- Maximal recommended storage temperature: 40°C
- Shelf life: 2 years

### SPECIFICATION

Parameter	Guaranteed value	Method
Aspect	Clear liquid	Visual examination
Color	≤ 50 APHA	Coloration (APHA)(1)
Purity	≥ 99.5 %	Gas chromatography
Alcohol content	≤ 0.5 %	Gas chromatography
Water	≤ 400 ppm	Karl Fischer
Mineral Acidity (HNO <sub>3</sub> )	≤ 30 ppm	Titration
Density at 15°C	0.967 ± 0.005 kg/l	Digital Density Meter

Note<sup>(1)</sup>: 50 APHA equivalent to 50 Hazen according to ASTM D 1209  
250 APHA equivalent to 0 according to ASTM D 1500  
280 APHA equivalent to 0.5 according to ASTM D 1500

### PHYSICAL PROPERTIES

Gradual Solidification		: < -50 °C
Kinematic Viscosity	(20 °C) ν	: 1.78 mm <sup>2</sup> /s
Dynamic Viscosity	(20 °C) η	: 1.7 mPa/s
Nitrogen content		: 7.92 to 8.00 %

### GARANTEED VALUES WITH RESPECT OF THESE ABOVE CRITERIA AND PERIODICAL CHECKING

Flash point	> 65 °C	Pensky-Martens Closed Cup Tester
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### STANDARD PACKAGING

- Bulk
- Metal drum 200 Kg net
- Plastic IBC 975 kg net