

## 1 - Product and Company Information

ProductName ETHYL 5-NORBORNENE-2-CARBOXYLA - 1 GM TE (MIXTURE OF ENDO AND EXO)

## 2 - Hazards Identification

### 3 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I
ETHYL 5-NORBORNENE-2-CARBOXYLATE	10138-32-6	None	None
Formula	C10H14O2		
Molecular Weight	166.22 AMU		
Synonyms	2,5-Endomethylene-3-cyclohexene carboxylic acid, ethyl ester * 5-Norbornene-2-carboxylic acid, ethyl ester		

## 4 - First Aid Measures

### AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

### AFTER SKIN CONTACT

In case of contact, immediately wash skin with soap and copious amounts of water.

### AFTER EYE CONTACT

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

### AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

## 5 - Fire Fighting Measures

### EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

### SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

## 6 - Accidental Release Measures

### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

### METHODS FOR CLEANING UP

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

## 7 - Handling and Storage

### HANDLING

Directions for Safe Handling: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

## 8 - Exposure Controls / Personal Protection

### ENGINEERING CONTROLS

Mechanical exhaust required. Safety shower and eye bath.

### GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

### PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose

combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole

means of protection, use a full-face supplied air respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

## 9 - Physical and Chemical Properties

Appearance Physical State: Liquid

Property	Value	At Temperature or Pressure
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pH N/A

BP/BP Range N/A

MP/MP Range N/A

Flash Point N/A

Flammability N/A

Autoignition Temp. N/A

Oxidizing Properties N/A

Explosive Properties N/A

Explosion Limits N/A

Vapor Pressure N/A

Partition Coefficient Log Kow: 1.999

Viscosity N/A

Vapor Density N/A

Saturated Vapor Conc. N/A

Evaporation Rate N/A

Bulk Density N/A

Decomposition Temp. N/A

Solvent Content N/A

Water Content N/A

Surface Tension N/A

Conductivity N/A

Miscellaneous Data N/A

Solubility N/A

## 10 - Stability and Reactivity

### STABILITY

Stable: Stable.

Materials to Avoid: Strong oxidizing agents.

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

## 11 - Toxicological Information

### RTECS NUMBER: DT5200000

### SENSITIZATION

Sensitization: Possible sensitizer.

Skin: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals. The preceding data, or interpretation of data, was determined using Quantitative Structure Activity Relationship (QSAR) modeling.

### SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: May cause eye irritation.

Inhalation: May be harmful if inhaled. Material may be

irritating to mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

## 12 - Ecological Information

### No data available.

## 13 - Disposal Considerations

### SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with a combustible afterburner and scrubber. Observe all federal, state, and local environmental regulations.

## 14 - Transport Information

### RID/ADR

Non-hazardous for road transport.

### IMDG

Non-hazardous for sea transport.

### IATA

Non-hazardous for air transport.

## 15 - Regulatory Information

### Caution: Substance not yet fully tested (EU).

## 16 - Other Information

For R&D use only. Not for drug, household or other uses.

### WARRANTY:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Lookchem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.