SAFETY DATA SHEET

Oakwood Products, Inc
730 Columbia HWY N
Estill, SC 29918
www.oakwoodchemical.com

Phone Numbers:
Product Information 803-739-8800
Transportation Emergency 800-451-8346
Outside the USA 760-602-8700

MATERIAL IDENTIFICATION

NAME: Ethyl cyanoacetate
CAS#: [105-56-6]
CAT#: 022111
For R&D use only.

HAZARDS IDENTIFICATION

GHS Classification
Acute toxicity, oral (Category 4)
Acute toxicity, dermal (Category 4)
Acute toxicity, inhalation (Category 4)

GHS Label elements, including precautionary statements

Pictograms

Signal Word Warning

Hazard Statement(s)
H302 Harmful if swallowed
H312 Harmful in contact with skin
H332 Harmful if inhaled

Precautionary Statement(s)
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P301 + P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.
P302 + P352 IF ON SKIN: wash with plenty of soap and water.
P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**COMPOSITION/INFORMATION ON INGREDIENTS**

<table>
<thead>
<tr>
<th>CAS</th>
<th>Description</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>105-56-6</td>
<td>Ethyl cyanoacetate</td>
<td>99%</td>
</tr>
</tbody>
</table>

**FIRST AID MEASURES**

- **In case of eye contact**
  Immediately flush eyes with running water for at least 15 minutes while keeping eyes open. Seek medical attention.

- **In case of skin contact**
  Wash thoroughly with soap and plenty of water. Seek medical attention.

- **If inhaled**
  Remove victim from source of exposure to fresh air. If breathing is difficult, administer oxygen. Seek medical attention.

- **If swallowed**
  Do not induce vomiting. Give water to victim to drink. Seek medical attention.

**FIRE-FIGHTING MEASURES**

- **Suitable extinguishing media**
  Use carbon dioxide, dry chemical powder, alcohol-resistant or polymer foam.

- **Special protective equipment for fire-fighters**
  Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

- **Unusual fire and explosion hazards/decomposition of product**
  Emits toxic fumes under fire conditions.

**ACCIDENTAL RELEASE MEASURES**

- **Personal precautions**
  Use personal protective equipment. Avoid breathing fumes, vapors, mists or gas. Ventilate area. Remove all sources of ignition. Evacuate personnel.

- **Environmental precautions**
  Prevent further leakage if safe to do so.

- **Methods and materials for containment and clean up**
  Absorb spills on sand or vermiculite and place in closed container for disposal.

**HANDLING AND STORAGE**

Salicylic acid
Precautions for safe handling
Avoid prolonged use. Avoid all direct contact with material. Do not breathe dust or vapor. Wash thoroughly after handling.

Lachrymator

Precautions for safe storage
Keep container tightly closed. Store in a cool, dry, well-ventilated area.

EXPOSURE CONTROL/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Eye/face protection
Wear protective safety goggles or face shields tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Hand/skin protection
Avoid all direct contact with product.
Wear chemical-resistant gloves.
Wear protective clothing and boots.
After contact with skin, wash immediately.

Respiratory protection
Ensure adequate ventilation during use. Approved respiratory equipment must be used when airborne concentrations are unknown or exceed the exposure limits.

PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Colorless liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>no data available</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>no data available</td>
</tr>
<tr>
<td>Melting point/Freezing Point</td>
<td>-22°C</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>208-210°C</td>
</tr>
<tr>
<td>Flash Point</td>
<td>109°C-closed cup</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>no data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>no data available</td>
</tr>
<tr>
<td>Upper/Lower Flammability or Explosive limits</td>
<td>no data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>no data available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>1.063</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>no data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
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</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>no data available</td>
</tr>
<tr>
<td>Refractive Index</td>
<td>1.1418</td>
</tr>
</tbody>
</table>

STABILITY AND REACTIVITY
Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
no data available

Conditions to avoid
no data available

Incompatible materials
Strong oxidizing agents, strong reducing agents, strong acids, and strong bases.

Hazardous decomposition products
May evolve carbon monoxide, carbon dioxide, and nitrogen oxides.

**TOXICOLOGICAL INFORMATION**

Acute toxicity
Other information on acute toxicity
LD50 Subcutaneous - guinea pig - 1,115 mg/kg
Remarks: Behavioral:Tremor. Behavioral:Muscle contraction or spasticity. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
no data available

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

Carcinogenicity
no data available

Reproductive toxicity
no data available

STOT-single exposure
no data available

STOT-repeated exposure
no data available

Aspiration hazard
no data available

Exposure Routes
Irritating to skin, eyes, and respiratory system. May have harmful effects if inhaled or swallowed.

Signs and Symptoms of Exposure
Nitriles may resemble cyanides in toxicity. Exposure to nitriles may cause increased salivation,
flushing of the face, eye and respiratory tract irritation, shallow respiration, nausea, vomiting, weakness, headache and diarrhea. Jaundice, anemia, and leukocytosis have been reported in some cases.

**Additional Information**

RTECS: AG4110000

To the best of our knowledge, the health hazards of this material have not been fully investigated.

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**ECOLOGICAL INFORMATION**

**Toxicity**
no data available

**Persistence and degradability**
no data available

**Bioaccumulative potential**
no data available

**Mobility in soil**
no data available

**PBT and vPvB assessment**
no data available

**Other adverse effects**
no data available

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**DISPOSAL CONSIDERATIONS**

Dissolve in or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all Federal, State and local laws.

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**TRANSPORT INFORMATION**

**DOT**
Classed non-hazardous for shipping.

**IMDG**
Classed non-hazardous for shipping.

**IATA**
Classed non-hazardous for shipping.

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**REGULATORY INFORMATION**

**SARA 302 Components**
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**
SARA 313: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313.
New Jersey Right to Know Components
This product contains a chemical on the New Jersey Right to Know Components List.

CAS
Ethyl cyanoacetate 105-56-6

California Prop. 65 Components
This product does not contain a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

OTHER INFORMATION

Version : 1.2
Revision Date : 2/10/2017

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Oakwood shall not be held liable for any damage resulting from handling or from contact with the above product.