MATERIAL IDENTIFICATION

NAME: N,N-Diisopropylethylamine
CAS#: [7087-68-5]
CAT#: 005027
For R&D use only.

HAZARDS IDENTIFICATION

GHS Classification
Flammable liquids (Category 3)
Skin corrosion/irritation (Category 1B)
Serious eye damage/eye irritation (Category 1)

GHS Label elements, including precautionary statements

Pictograms

<table>
<thead>
<tr>
<th>Hazard Statement(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H226</td>
<td>Flammable liquid and vapour</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
</tbody>
</table>

Precautionary Statement(s)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P201</td>
<td>Obtain special instructions before use.</td>
</tr>
<tr>
<td>P261</td>
<td>Avoid breathing dust/fume/gas/mist/vapours/spray.</td>
</tr>
<tr>
<td>P280</td>
<td>Wear protective gloves/protective clothing/eye protection/face protection.</td>
</tr>
<tr>
<td>P301 + P310</td>
<td>IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.</td>
</tr>
<tr>
<td>P301 + P330 + P331</td>
<td>IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</td>
</tr>
<tr>
<td>P302 + P350</td>
<td>IF ON SKIN: Gently wash with plenty of soap and water.</td>
</tr>
</tbody>
</table>
P304 + P340 IF INHALED: 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.

P310 Immediately call a POISON CENTER or doctor/physician.

### COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS</th>
<th>Description</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>7087-68-5</td>
<td>N,N-Diisopropylethylamine</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

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

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>clear 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>no data available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>127°C</td>
</tr>
<tr>
<td>Flash Point</td>
<td>12°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>0.742</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>no data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>no data available</td>
</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>1.414</td>
</tr>
</tbody>
</table>
STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
no data available

Conditions to avoid
Heat, flames and sparks. Extremes of temperature and direct sunlight.

Incompatible materials
Strong oxidizing agents, strong acids, acid chlorides, acid anhydrides, metals, water, and CO2, copper, brass, rubber, nitrates, peroxides.

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

TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50
Rat - 317 mg/kg

Inhalation LC50
Rat - 4 h - 2.63 mg/l
Remarks: Irritating to respiratory system.

Dermal LD50
Rat - >2,000 mg/kg
Remarks: No adverse effect has been observed in acute toxicity tests.

Skin corrosion/irritation
Rabbit
Result: Mild skin irritation

Serious eye damage/eye irritation
In vitro study
Result: Severe eye irritation

Respiratory or skin sensitization
Guinea pig
Does not cause skin sensitisation.

Germ cell mutagenicity
no data available

Carcinogenicity
no data available

Reproductive toxicity
no data available

STOT-single exposure
Inhalation - May cause respiratory irritation.

**STOT-repeated exposure**
no data available

**Aspiration hazard**
no data available

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

**Signs and Symptoms of Exposure**
Burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

**Target Organs**
Respiratory Tract

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

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**ECOLOGICAL INFORMATION**

**Toxicity**
Toxicity to daphnia and other aquatic invertebrates:
EC50 - Daphnia magna (Water flea) - 28.1 mg/l - 48h

Toxicity to fish:
LC50 - Danio rerio (zebra fish) - >69.7 mg/l - 96h

Toxicity to algae:
EC50 - Pseudokirchneriella subcapitata (green algea) - 150 mg/l - 72h

**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.

TRANSPORT INFORMATION

**DOT**
Amine, flammable, corrosive, n.o.s.
3, 8
UN2733  II

**IMDG**
Amines, flammable, corrosive, n.o.s.
3, 8
UN2733  II
EMS-No: F-E, S-C
Marine Pollutant: No

**IATA**
Amines, flammable, corrosive, n.o.s.
3, 8
UN2733  II

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 may contain a chemical on the New Jersey Right to Know Components List.

**CAS**
N,N-Diisopropylethylamine  7087-68-5

**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 : 1.8

Revision Date : 3/8/2019

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.