Di-tert-butyl dicarbonate

SDS

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: Di-tert-butyl dicarbonate
CAS#: [24424-99-5]
CAT#: 021896
For R&D use only.

HAZARDS IDENTIFICATION

GHS Classification
Flammable liquids (Category 2)
Acute toxicity, dermal (Category 4)
Acute toxicity, inhalation (Category 4)

GHS Label elements, including precautionary statements

Pictograms

Signal Word Danger

Hazard Statement(s)
H225 Highly Flammable liquid and vapour
H312 Harmful in contact with skin
H332 Harmful if inhaled

Precautionary Statement(s)
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
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

Di-tert-butyl dicarbonate
Synonyms: Di-tert-butyl pyrocarbonate, Boc anhydride  
Formula: C10H18O5  
Molecular Weight: 218.25 g/mol

<table>
<thead>
<tr>
<th>CAS</th>
<th>Description</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>24424-99-5</td>
<td>Di-tert-butyl dicarbonate</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.
Moisture sensitive.
Recommended storage conditions: 2-8°C.

EXPOSURE CONTROL/PERSOAL 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 low-melting solid</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>23°C</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>56-57°C/0.5mm Hg</td>
</tr>
<tr>
<td>Flash Point</td>
<td>37°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>0.950</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>1.4090</td>
</tr>
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</table>

STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.
Possibility of hazardous reactions
no data available

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

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

Hazardous decomposition products
May evolve carbon monoxide and carbon dioxide.

TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50
Mammal ->5000 mg/Kg

Inhalation LC50
Rat - 100mg/m3/4h
Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Eye: Other. Lungs, Thorax, or
Respiration: Dyspnea. Nutritional and Gross Metabolic: Weight loss or decreased weight gain.

Dermal LD50
Mammal -> 2000mg/kg

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
Harmful to skin, eyes, and respiratory system.
May be toxic if inhaled or swallowed.

Additional Information
RTECS: HT0230000

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

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

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
Toxic liquids, flammable, organic, n.o.s.
6.1, 3
UN2929  II

IMDG
Toxic liquid, flammable, organic, n.o.s.
6.1, 3
UN2929  II
EMS-No: F-E, S-D
Marine Pollutant: No

IATA
Toxic liquid, flammable, organic, n.o.s.
6.1, 3
UN2929  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.

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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.

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OTHER INFORMATION

Version : 1.9

Revision Date : 8/21/2017

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.