

# OXFORD LAB FINE CHEM LLP

ISO 9001-2008 Certified Company

**Regd Office:** Unit no 12, 1st Floor,  
Neminath Industrial Estate No.6,  
Navghar, Vasai (East), Palghar - 410210.  
Maharashtra, INDIA.

**Tel:** +91 250 2390032 / 2390989 / 2390990  
**Email:** sales@oxfordlabchem.com /  
info@oxfordlabchem.com  
**Web:** www.oxfordlabchem.com

**Oxford**  
Range of  
Laboratory Chemicals

## MATERIAL SAFETY DATA SHEET

**BOC ANHYDRIDE 98%**  
**(Di-tert-butyl Pyrocarbonate)**  
**(For Synthesis)**  
**MSDS CAS : 24424-99-5**

### **Section 1: Chemical Product and Company Identification**

#### Section 1: Chemical Product

**Product Name :** BOC ANHYDRIDE

**CAS#:** 24424-99-5

**C.I. No.:** Not available.

**Synonym :** Not available.

**Chemical Name:** Not available.

**Chemical Formula:** C<sub>10</sub>H<sub>18</sub>O<sub>5</sub>

**Brand:** OXFORD

#### Details Of The Supplier Of The Safety Data Sheet:

**Company identification:**    **OXFORD LAB FINE CHEM LLP**  
Unit. No. 12, 1st Floor, Neminath Industrial Estate No. 6,  
Navghar, Vasai (East). Palghar - 401 210.  
Mumbai, Maharashtra, INDIA.  
Tel: 91-250-2390989  
Tel/Fax: 91-250-2390032

### **Section 2: Composition and Information on Ingredients**

#### Composition:

Name	CAS #	% by Weight
BOC ANHYDRIDE	24424-99-5	100%

## Section 3: Hazards Identification

### Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1999/45

Classification : R10  
T+; R26  
Xi; R36/37/38

#### Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Specific Target Organ Toxicity - Single exposure - Respiratory tract irritation - Category 3 - Warning (CLP : STOT SE 3) H335  
Acute toxicity, Inhalation - Category 2 - Danger (CLP : Acute Tox. 2) H330  
Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2) H315  
Eye irritation - Category 2A - Warning (CLP : Eye Irrit. 2) H319

Physical hazards : Flammable liquids - Category 3 - Warning (CLP : Flam. Liq. 3) H226

Other hazards : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

## Section 4: First Aid Measures

### Description of first aid measures

#### Inhalation

Immediately call a POISON CENTER or doctor. Specific treatment is urgent (see on this label). Remove to fresh air and keep at rest in a position comfortable for breathing.

#### Skin contact

Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs : Get medical advice. Specific treatment (see on this label). Wash contaminated clothing before reuse.

#### Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.

#### Ingestion :

Obtain emergency medical attention. Rinse mouth. Do NOT induce vomiting.

### Most important symptoms and effects, both acute and delayed

Symptoms relating to use : Fatal if inhaled.  
Causes serious eye irritation.

## Section 4: First Aid Measures (Continued)

Causes skin irritation. May cause respiratory irritation.

### Indication of any immediate medical attention and special treatment needed

**General information:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

## Section 5: Fire and Explosion Data

### Extinguishing media

#### Extinguishing media

**Suitable extinguishing media** : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

**Unsuitable extinguishing media** : Do not use a heavy water stream.

**Surrounding fires** : Use water spray or fog for cooling exposed containers.

#### Special hazards arising from the substance or mixture

**Hazardous combustion products** : Under fire conditions, hazardous fumes will be present.

#### Advice for fire-fighters

**Protection against fire** : Do not enter fire area without proper protective equipment, including respiratory protection.

**Special procedures** : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

## Section 6: Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

**For emergency responders** : Equip cleanup crew with proper protection.  
Ventilate area.

**Technical measures** : Use special care to avoid static electric charges.

**Special precautions** : Remove ignition sources. No naked lights. No smoking.

**For non-emergency personnel** : Evacuate unnecessary personnel.

**Environmental precautions** : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

## Section 6: Accidental Release Measures (Continued)

### Methods and materials for containment and cleaning up

**Clean up methods :** Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Store away from other materials. Collect spillage.

## Section 7: Handling and Storage

### Precautions for safe handling

**Handling** : Handle empty containers with care because residual vapours are flammable. Wash thoroughly after handling. Wash thoroughly after handling. Do not breathe dust, fume, gas, mist, vapours, spray. Use only outdoors or in a well-ventilated area. Take precautionary measures against static discharge.

**Technical protective measures** : Provide good ventilation in process area to prevent formation of vapour. Proper grounding procedures to avoid static electricity should be followed. Use only non-sparking tools. Use explosion-proof electrical, ventilating, lighting, ..., equipment.

**Special precautions :** No naked lights. No smoking. Avoid breathing dust, fume, gas, mist, vapours, spray.

### Conditions for safe storage, including any incompatibilities

**Storage** : Keep only in the original container in a cool, well ventilated place. Keep in fireproof place. Ground/bond container and receiving equipment. Keep container tightly closed.

**Storage - away from** : Strong bases. Strong acids. Sources of ignition. Direct sunlight. Heat sources.

### Specific end uses

**Specific end use(s)** : None.

## Section 8: Exposure Controls/Personal Protection

### Personal protection

- Respiratory protection : Avoid all unnecessary exposure.
- Hand protection : Wear respiratory protection.
- Skin protection : Wear protective gloves.
- Eye protection : Wear suitable protective clothing.
- Others : Chemical goggles or safety glasses.
- Others : When using, do not eat, drink or smoke.

## Section 8: Exposure Controls/Personal Protection (Continued)

### Control parameters

**Occupational Exposure Limits** : No data available.

## Section 9: Physical and Chemical Properties

### Information on basic physical and chemical properties

<b>Physical state at 20 °C</b>	<b>: Liquid.</b>
<b>Color</b>	<b>: Clear Colourless</b>
<b>Odor</b>	<b>: N/A</b>
<b>Odor threshold</b>	<b>: No data available.</b>
<b>pH value</b>	<b>: No data available.</b>
<b>Melting point [°C]</b>	<b>: 23 °C</b>
<b>Decomposition point [°C]</b>	<b>: N/A</b>
<b>Critical temperature [°C]</b>	<b>: N/A</b>
<b>Auto-ignition temperature [°C]</b>	<b>: N/A</b>
<b>Flammability (solid, gas)</b>	<b>: N/A</b> <b>Flammable liquid and vapour.</b>
<b>Flash point [°C]</b>	<b>: 37 °C</b>
<b>Boiling point [°C]</b>	<b>: 56 - 57 °C</b>
<b>Initial boiling point [°C]</b>	<b>: 56 °C</b>
<b>Final boiling point [°C]</b>	<b>: 57 °C</b>
<b>Evaporation rate</b>	<b>: N/A</b>
<b>Vapour pressure [20°C]</b>	<b>: N/A</b>
<b>Vapour pressure mm/Hg</b>	<b>: N/A</b>
<b>Vapour density</b>	<b>: N/A</b>
<b>Density [g/cm<sup>3</sup>]</b>	<b>: 0,95</b>
<b>Relative density, gas (air=1)</b>	<b>: N/A</b>
<b>Relative density, liquid (water=1)</b>	<b>: N/A</b>
<b>Solubility in water [% weight]</b>	<b>: N/A</b>
<b>Solubility in water</b>	<b>: N/A</b>
<b>Log Pow octanol / water at 20°C</b>	<b>: No data available.</b>
<b>Solubility</b>	<b>: N/A</b>
<b>Viscosity at 40°C [mm<sup>2</sup>/s]</b>	<b>: N/A</b>

## Section 9: Physical and Chemical Properties (Continued)

**Molecular Weight** : 218.25

### Other information

**Explosive properties** : N/A  
**Explosion limits - upper [%]** : N/A  
**Explosion limits - lower [%]** : N/A  
**Oxidizing properties** : No data available.

## Section 10: Stability and Reactivity Data

### Reactivity

**Reactivity** : Not established.

### Chemical stability

**Chemical stability** : Stable under recommended storage conditions.

### Possibility of hazardous reactions

**Hazardous reactions** : Not established.

### Conditions to avoid

**Conditions to avoid** : Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

### Incompatible materials

**Materials to avoid** : Strong acids. Strong bases.

### Hazardous decomposition products

**Hazardous decomposition products** : Fumes. Carbon monoxide. Carbon dioxide.  
May release flammable gases.

## Section 11: Toxicological Information

### Information on toxicological effects

#### Acute toxicity

• **Inhalation** : Fatal if inhaled.

## Section 11: Toxicological Information (Continued)

• Dermal	: Based on available data, the classification criteria are not met.
• Ingestion	: Based on available data, the classification criteria are not met.
Corrosion	: Based on available data, the classification criteria are not met.
Irritation	: Causes serious eye irritation. Causes skin irritation. May cause respiratory irritation.
Sensitization	: Based on available data, the classification criteria are not met.
Mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Toxic for reproduction	: Based on available data, the classification criteria are not met.
STOT-single exposure	: Based on available data, the classification criteria are not met.
STOT-repeated exposure	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.

## Section 12: Ecological Information

### Toxicity

Toxicity information : Not established.

### Persistence – degradability

Persistence - degradability : Biodegradable.

### Bio accumulative potential

Bio accumulative potential : Not established.

### Mobility in soil

Mobility in soil : Not established.

### Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment:** The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

### Other adverse effects

**Environmental precautions:** Avoid release to the environment.

## Section 13: Disposal Considerations

### Waste treatment methods

**General:** Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**Special precautions :** Hazardous waste due to toxicity. Handle empty containers with care because residual vapours are flammable.

## Section 14: Transport Information

### Land transport (ADR-RID)

Proper shipping name	: TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S.
UN N°	: 2929
H.I. nr	: 663
ADR - Class	: 6.1
Labelling - Transport	: 6.1 : Toxic substances. 3 : Flammable liquid.
ADR - Group	: I

### Sea transport (IMDG)

Proper shipping name	: TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S.
UN N°	: 2929
IMO-IMDG - Class or division	: 6.1 : Toxic substances. ( 3 : Flammable liquid. )
IMO-IMDG - Packing group	: I

### Air transport (ICAO-IATA)

Proper shipping name	: TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S.
UN N°	: 2929
IATA - Class or division	: 6.1 : Toxic substances. ( 3 : Flammable liquid. )
IATA - Packing group	: I

## Section 15: Other Regulatory Information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

**Safety, health and environmental:** Ensure all national/local regulations are observed.  
**Regulations/legislation specific for**



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## Section 15: Other Regulatory Information (Continued)

**The substance or mixture**

**REACH Restrictions - Annex XVII:** The components of this product are not subject to restrictions.

**REACH Authorization - Annex XIV:** The components of this product are not subject to authorization.

### Chemical Safety Assessment

**Chemical Safety Assessment:** It has not been carried out.

## Section 16 - Additional Information

**References:** Not available.

**Other Special Considerations:** Not available.

### *Disclaimer:*

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