# TCI AMERICA

## SAFETY DATA SHEET

**Revision number:** 2
**Revision date:** 10/06/2014

### *1. IDENTIFICATION*

**Product name:** N-(tert-Butoxycarbonyl)-O-benzyl-L-threonine
**Product code:** B1630

**Product use:** For laboratory research purposes.
**Restrictions on use:** Not for drug or household use.

**Company:**
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**Emergency telephone number:**
Chemical Emergencies:
TCI America (8:00am - 5:00pm) PST
+1-503-286-7624
Transportation Emergencies:
Chemtrec 24-Hour
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+1-703-527-3887 (International)
**Responsible department:**
TCI America
Environmental Health Safety and Security
+1- 503-286-7624

### *2. HAZARD(S) IDENTIFICATION*

**OSHA Haz Com: CFR 1910.1200:** Not classifiable

**Signal word:** None

**Hazard Statement(s):** None

**Pictogram(s) or Symbol(s):** None

**Precautionary Statement(s):** None

**Supplementary Information:** While this material is not classified as hazardous under OSHA, this SDS contains valuable information critical to safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

### *3. COMPOSITION/INFORMATION ON INGREDIENTS*

**Substance/Mixture:** Substance
**Components:** N-(tert-Butoxycarbonyl)-O-benzyl-L-threonine
**Percent:** >98.0%(HPLC)(T)
**CAS Number:** 15260-10-3
**Molecular Weight:** 309.36
**Chemical Formula:** $C_{16}H_{23}NO_5$
**Synonyms:** N-Boc-O-benzyl-L-threonine , Boc-Thr(Bzl)-OH

### *4. FIRST-AID MEASURES*

**Inhalation:** Move victim to fresh air. Call emergency medical service. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

**Skin contact:** Remove and isolate contaminated clothing and shoes. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

## *4. FIRST-AID MEASURES*

**Eye contact:** Move victim to fresh air. Check for and remove any contact lenses. In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

**Ingestion:** If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Loosen tight clothing such as a collar, tie, belt or waistband. If swallowed, seek medical advice immediately and show the container or label. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Effects of exposure (ingestion) to substance may be delayed.

**Symptoms/effects:**

**Acute:** No data available
**Delayed:** No data available

**Immediate medical attention:** If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

## *5. FIRE-FIGHTING MEASURES*

**Suitable extinguishing media:** Dry chemical, $CO_2$ , water spray, or alcohol-resistant foam. Consult with local fire authorities before attempting large scale fire fighting operations.

**Specific hazards arising from the chemical**

**Hazardous combustion products:** These products include: Carbon oxides Nitrogen oxides
**Other specific hazards:** Closed containers may explode from heat of a fire.

**Special precautions for fire-fighters:**
Not available
**Special protective equipment for fire-fighters:**
Structural fire fighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations.

## *6. ACCIDENTAL RELEASE MEASURES*

**Personal precautions:** Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (Section 8).
**Personal protective equipment:** Wear protective clothing, gloves and eye protection.
**Emergency procedures:** In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the area, and excercise caution.

**Methods and materials for containment and cleaning up:**
Dike far ahead of liquid spill for later disposal.
**Environmental precautions:**
Prevent entry into sewers, basements or confined areas.

## *7. HANDLING AND STORAGE*

**Precautions for safe handling:** Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.
**Conditions for safe storage:** Keep container tightly closed in a dry and well-ventilated place.
**Storage incompatibilities:** Store away from oxidizing agents

## *8. EXPOSURE CONTROLS / PERSONAL PROTECTION*

**Exposure limits:** No data available

**Appropriate engineering controls:**
Good general ventilation should be sufficient to control airborne levels. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

**Personal protective equipment**

**Respiratory protection:** Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent.
**Hand protection:** Wear protective gloves.
**Eye protection:** Safety glasses.
**Skin and body protection:** Lab coat.

## *9. PHYSICAL AND CHEMICAL PROPERTIES*

**Physical state (20°C):** Solid
**Form:** Crystal - Powder
**Color:** White - Almost white
**Odor:** No data available
**Odor threshold:** No data available

| | | | |
|---|---|---|---|
| **Melting point/freezing point:** | 116°C (241°F) | **pH:** | No data available |
| **Boiling point/range:** | No data available | **Vapor pressure:** | No data available |
| **Decomposition temperature:** | No data available | **Vapor density:** | No data available |
| **Relative density:** | No data available | **Dynamic Viscosity:** | No data available |
| **Kinematic Viscosity:** | No data available | | |
| **Partition coefficient: n-octanol/water (log $P_{ow}$)** | No data available | **Evaporation rate:** (Butyl Acetate = 1) | No data available |
| **Flash point:** | No data available | **Autoignition temperature:** | No data available |
| **Flammability (solid, gas):** | No data available | **Flammability or explosive limits:** | |
| | | **Lower:** | No data available |
| | | **Upper:** | No data available |

**Solubility(ies):**

## *10. STABILITY AND REACTIVITY*

**Reactivity:** Not Available.
**Chemical Stability:** Stable under recommended storage conditions. (See Section 7)
**Possibility of Hazardous Reactions:** No hazardous reactivity has been reported.
**Conditions to avoid:** Avoid excessive heat and light.
**Incompatible materials:** Strong oxidizing agents
**Hazardous Decomposition Products:** No data available

## *11. TOXICOLOGICAL INFORMATION*

**Acute Toxicity:**
No data available

**Skin corrosion/irritation:**
No data available

**Serious eye damage/irritation:**
No data available

**Respiratory or skin sensitization:**
No data available

**Germ cell mutagenicity:**
No data available

**Carcinogenicity:**

No data available

**IARC:** No data available **NTP:** No data available **OSHA:** No data available

**Reproductive toxicity:**
No data available

**Routes of Exposure:** Inhalation, Eye contact, Ingestion.
**Symptoms related to exposure:**
No specific information is available in our data base regarding the toxic effects of this material for humans. However, exposure to any chemical should be kept to a minimum. Always follow safe industrial hygiene practices and wear proper protective equipment when handling this compound.
**Potential Health Effects:**
No specific information available; skin and eye contact may result in irriatation. May be harmful if inhaled or ingested.

**Target organ(s):** No data available

## *12. ECOLOGICAL INFORMATION*

**Ecotoxicity**

| | |
|---|---|
| **Fish:** | No data available |
| **Crustacea:** | No data available |
| **Algae:** | No data available |

| | |
|---|---|
| **Persistence and degradability:** | No data available |
| **Bioaccumulative potential (BCF):** | No data available |
| **Mobillity in soil:** | No data available |
| **Partition coefficient: n-octanol/water (log $P_{ow}$)** | No data available |
| **Soil adsorption (Koc):** | No data available |
| **Henry's Law: constant ($PaM^3/mol$)** | No data available |

## *13. DISPOSAL CONSIDERATIONS*

**Disposal of product:** Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261.

**Disposal of container:** Dispose of as unused product.

**Other considerations:** Observe all federal, state and local regulations when disposing of the substance.

## *14. TRANSPORT INFORMATION*

**DOT (US)** Non-hazardous for transportation.

**IATA** Non-hazardous for transportation.

**IMDG** Non-hazardous for transportation.

## *15. REGULATORY INFORMATION*

**Toxic Substance Control Act (TSCA 8b.):**
This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

**US Federal Regulations**

**CERCLA Hazardous substance and Reportable Quantity:**

| | |
|---|---|
| **SARA 313:** | Not Listed |
| **SARA 302:** | Not Listed |

**State Regulations**

**State Right-to-Know**

| | |
|---|---|
| **Massachusetts** | Not Listed |
| **New Jersey** | Not Listed |
| **Pennsylvania** | Not Listed |
| **California Proposition 65:** | Not Listed |

**Other Information**

**NFPA Rating:**

| | |
|---|---|
| **Health:** | 0 |
| **Flammability:** | 0 |
| **Instability:** | 0 |

**HMIS Classification:**

| | |
|---|---|
| **Health:** | 0 |
| **Flammability:** | 0 |
| **Physical:** | 0 |

**International Inventories**

**WHMIS hazard class:** No data available.

## *15. REGULATORY INFORMATION*

**Canada: NDSL** On NDSL
**EC-No:** 239-304-5

## *16. OTHER INFORMATION*

**Revision date:** 10/06/2014
**Revision number:** 2

TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.