

# SDS

## SAFETY DATA SHEET

Oakwood Products, Inc  
 730 Columbia HWY N  
 Estill, SC 29918  
[www.oakwoodchemical.com](http://www.oakwoodchemical.com)

**Phone Numbers:**

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

**MATERIAL IDENTIFICATION**

NAME: (S)-2,5-Bis((tert-butoxycarbonyl)amino)pentanoic acid  
 CAS#: [57133-29-6]  
 CAT#: 222427  
 For R&D use only.

**HAZARDS IDENTIFICATION****GHS Classification**

Acute toxicity, oral (Category 4)  
 Skin corrosion/irritation (Category 2)  
 Serious eye damage/eye irritation (Category 2A)  
 Respiratory tract irritation (Category 3)

**GHS Label elements, including precautionary statements**

Pictograms



Signal Word

Warning

Hazard Statement(s)

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

Precautionary Statement(s)

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
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 + 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.

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## COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Di-N-(tert-butoxycarbonyl)-L-ornithine, N,N'-Di(Boc)-L-ornithine, N,N'-Di-tert-butoxycarbonyl-L-ornithine  
 Formula : C<sub>15</sub>H<sub>28</sub>N<sub>2</sub>O<sub>6</sub>  
 Molecular Weight : 332.40 g/mol

CAS	Description	Concentration
57133-29-6	(S)-2,5-Bis((tert-butoxycarbonyl)amino)pentanoic acid	98%

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## 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.

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## 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.

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## 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.

Keep cold.

Recommended storage temperature: 2-8°C

**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**

Appearance	solid
Odour	no data available
Odour Threshold	no data available
Melting point/Freezing Point	no data available
Boiling Point	no data available
Flash Point	no data available
Evaporation Rate	no data available
Flammability (solid, gas)	no data available
Upper/Lower Flammability or Explosive limits	no data available
Vapour pressure	no data available
Relative Density	1.124
Solubility(ies)	no data available
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Refractive Index	1.478

## 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 and strong bases.

### Hazardous decomposition products

May evolve carbon monoxide, carbon dioxide, and nitrogen oxides.

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## TOXICOLOGICAL INFORMATION

### Acute toxicity

no data available

### Skin corrosion/irritation

Causes skin irritation

### Serious eye damage/eye irritation

Causes serious eye irritation

### 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

May cause respiratory irritation

### 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.

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

(S)-2,5-Bis((tert-butoxycarbonyl)amino)pentanoic acid

**CAS**

57133-29-6

**California Prop. 65 Components**

This product may 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 : 3/22/2016

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.