

## Material Safety Data Sheet

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** (S)-3-N-Cbz-aminopiperidine  
**Synonyms:** (S)-benzyl piperidin-3-ylcarbamate  
**Company Identification:** PI Chemicals Ltd.  
5rd Floor, 88 Cailun Road  
Zhangjiang Hi-Tech Park  
Pudong New Area, Shanghai China, 201203  
**Telephone Number:** 86-21-58953700  
**Fax Number:** 86-21-58953701

### Section 2 - Product Information

**Catalog Number:** PI-23106  
**CAS Number:** 478646-33-2  
**MDL Number:** Not available  
**EC Number:** Not available  
**Purity:** 98%

### Section 3 - Physical and Chemical Properties

**Physical state:** Oil liquid  
**Color:** Yellow  
**Molecular Formula:**  $C_{13}H_{18}N_2O_2$   
**Molecular Weight:** 234.29  
**Freezing/Melting Point:** Not available  
**Boiling Point:** Not available  
**Flash Point:** Not available  
**Autoignition Temperature:** Not available  
**Refractive Index (nD20):** Not available  
**Density:** Not available  
**Decomposition Temperature:** Not available  
**Solubility:** Soluble in water

### Section 4 - Hazards Identification

**Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation.  
**Skin:** May be harmful if absorbed through skin. Causes skin irritation.  
**Eyes:** Causes eye irritation.

**Ingestion:** May be harmful if swallowed.

### **Section 5 - First Aid Measures**

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.  
Move out of dangerous area.

**If inhaled:** If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### **Section 6 - Stability and Reactivity**

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

**Materials to avoid:** Strong oxidizing agents.

**Conditions to Avoid:** Incompatible materials.

**Hazardous Decomposition Products:** Carbon oxides, Nitrogen oxides(Nox).

**Hazardous Polymerization:** Has not been reported.

### **Section 7 - Handling and Storage**

**Handling:** Avoid contact with skin and eyes. Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

**Storage:** Keep container tightly closed in a dry and well-ventilated place.  
Keep in a dry place.

### **Section 8 - Personal Protection**

**Eyes:** Wear appropriate protective eyeglasses.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Use an approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

### **Section 9 - Fire and Explosion Hazard Data**

**General Information:** As in any fire, wear a self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent) and protective clothing to prevent contact with skin and eyes.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or appropriate foam.

## **Section 10 - Accidental Release Measures**

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container.

## **Section 11 - Toxicological Information**

**RTECS#:** CAS# 478646-33-2: Not available.

**LD50/LC50:** RTECS: Not available.

**Carcinogenicity:** (S)-3-N-Cbz-aminopiperidine  
–Not listed as a carcinogen by ACGIH, IARC, NTP, or OSHA.

## **Section 12 - Environmental information**

Not available

## **Section 13 - Disposal Consideration**

Dissolve 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 environmental regulations.

## **Section 14 - Transport Information**

**IATA:** Not available.

**IMO:** Not available.

**RID/ADR:** Not available.

## **Section 15 - Regulatory Information**

### **European/International Regulations**

European Labeling in Accordance with EC Directives

Hazard Symbols: Xi

Indication of Danger: Irritant

Risk Phrases:

R 20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

R 37/38: Irritating to respiratory system and skin.

Safety Phrases:

S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

WGK Germany:

CAS# 478646-33-2: 3.

**Canada****CAS# 478646-33-2: Not available.****US Federal****TSCA**

**CAS# 478646-33-2 is not listed on the TSCA Inventory. It is for research and development use only.**

**Section 16 - Additional Information**

**MSDS Creation Date:** August 3, 2008

**Update:** December 21, 2010

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