

TCI (Shanghai) DEVELOPMENT CO., LTD.

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# SAFETY DATA SHEET

1. IDENTIFICATION

**Product name:** 4-(tert-Butoxycarbonylamino)cyclohexanol

Product code: B4714

Company: TCI (Shanghai) DEVELOPMENT CO., LTD.

Address: No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China

 Responsible Department:
 Sales Department

 Telephone:
 +86-(0)21-67121386

 Fax:
 +86-(0)21-67121385

e-mail: Sales-CN@TClchemicals.com

Emergency telephone: 0532-83889090

Revision number: 1

## 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

PHYSICAL HAZARDS

HEALTH HAZARDS

Not classified

Not classified

ENVIRONMENTAL HAZARDS

Not classified

Label elements

Pictograms or hazard symbols None

Signal word No signal word

Hazard statements None Precautionary statements None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Substance

**Components:** 4-(tert-Butoxycarbonylamino)cyclohexanol

**Percent:** >98.0%(GC)(N) **CAS RN:** 224309-64-2

Synonyms: (4-Hydroxycyclohexyl)carbamic Acid tert-Butyl Ester , 4-(Boc-amino)cyclohexanol ,

tert-Butyl (4-Hydroxycyclohexyl)carbamate

Chemical Formula: C<sub>11</sub>H<sub>21</sub>NO<sub>3</sub>

4. FIRST AID MEASURES

**Inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Get medical advice/attention if you feel unwell.

**Skin contact:** Remove/Take off immediately all contaminated clothing. Rinse skin with

water/shower. If skin irritation or rash occurs: Get medical advice/attention.

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/attention.

**Ingestion:** Get medical advice/attention if you feel unwell. Rinse mouth.

Protection of first-aiders: A rescuer should wear personal protective equipment, such as rubber gloves and

air-tight goggles.

#### 5. FIRE-FIGHTING MEASURES

Suitable extinguishing

Dry chemical, foam, water spray, carbon dioxide.

media:

Specific hazards arising from Take care as it may decompose upon combustion or in high temperatures to

**the chemical:** generate poisonous fume.

Precautions for firefighters: Fire-extinguishing work is done from the windward and the suitable

fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the

surroundings: Remove movable containers if safe to do so.

**Special protective equipment** When extinguishing fire, be sure to wear personal protective equipment for firefighters:

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions,** Use personal protective equipment. Keep people away from and upwind of

protective equipment and emergency procedures:

spill/leak. Entry to non-involved personnel should be controlled around the leakage

area by roping off, etc.

**Environmental precautions:** Prevent product from entering drains.

Methods and materials for containment and cleaning

Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with

appropriate laws and regulations.

# 7. HANDLING AND STORAGE

# Precautions for safe handling

**Technical measures:** Handling is performed in a well ventilated place. Wear suitable protective

equipment. Prevent dispersion of dust. Wash hands and face thoroughly after

handling.

Use a local exhaust if dust or aerosol will be generated.

Advice on safe handling: Avoid contact with skin, eyes and clothing.

Conditions for safe storage, including any

incompatibilities

up:

**Storage conditions:** Keep container tightly closed. Store in a cool and dark place.

Store away from incompatible materials such as oxidizing agents.

Packaging material: Comply with laws.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Install a closed system or local exhaust as possible so that workers should not be

exposed directly. Also install safety shower and eye bath.

Personal protective equipment

**Respiratory protection:** Dust respirator. Follow local and national regulations.

**Hand protection:** Protective gloves.

**Eye protection:** Safety glasses. A face-shield, if the situation requires. **Skin and body protection:** Protective clothing. Protective boots, if the situation requires.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Solid

Form: Crystal - Powder

Colour: White - Very pale yellow

Odour: No data available PH: No data available

Melting point/freezing point: 172°C

Boiling point/range: No data available Flash point: No data available

Flammability or explosive

limits:

Lower: No data available
Upper: No data available
Relative density: No data available

Solubility(ies):

[Water] No data available

[Other solvents]

Soluble: Methanol Log Pow: 1.81

# 10. STABILITY AND REACTIVITY

**Chemical stability:** Stable under proper conditions.

Possibility of hazardous No special reactivity has been reported.

reactions:

Incompatible materials: Oxidizing agents

Hazardous decomposition Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx)

products:

# 11. TOXICOLOGICAL INFORMATION

Acute Toxicity:
Skin corrosion/irritation:
No data available
No data available
No data available

damage/irritation:

Germ cell mutagenicity: No data available

Carcinogenicity:

IARC = No data available
NTP = No data available
Reproductive toxicity: No data available

# 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** 

Fish:

Crustacea:

Algae:

Persistence / degradability:

Bioaccumulative

No data available
No data available
No data available
No data available

potential(BCF):

Mobility in soil

**Log Pow:** 1.81

Soil adsorption (Koc): No data available Henry's Law (PaM ³/mol): No data available

### 13. DISPOSAL CONSIDERATIONS

Recycle to process, if possible. Consult your local regional authorities. 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. Observe all federal, state and local regulations when disposing of the substance.

## 14. TRANSPORT INFORMATION

Hazards Class: Does not correspond to the classification standard of the United Nations

UN-No: Not listed

#### 15. REGULATORY INFORMATION

Regulations on the Control over Safety of Dangerous Chemicals (State Council announces on January 26, 2002 and revised on February 16,2011): Safe use and production, the storage of a dangerous chemical, transport, loading and unloading were prescribed.

## **16. OTHER INFORMATION**

The reference company name of written contents

Company: TCI (Shanghai) DEVELOPMENT CO., LTD.

Address: No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China

**Department:** Technical Information Department

**Emergency telephone:** 0532-83889090 **Fax:** +86-(0)21-67121385

This SDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority.

The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.