Peptide Institute, Inc.

7-2-9 Saito-Asagi, Ibaraki-Shi, Osaka 567-0085, Japan

Safety Data Sheet (SDS)

1. PRODUCT AND COMPANY IDENTIFICATION

Catalog Code Number: 1037 Product Name: (Boc)₂O

Supplier's Name: Peptide Institute, Inc.

Address: 7-2-9 Saito-Asagi, Ibaraki-Shi, Osaka 567-0085, Japan

Phone Number: 81-72-643-4411 **Fax Number:** 81-72-643-4422 **Creation Date:** December 3, 2015 **Revised:** September 5, 2018 (ver.2)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS classification

HEALTH HAZARDS

ACUTE TOXICITY: ORAL Not classified SKIN CORROSION/IRRITATION Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION Category 2A SKIN SENSITIZATION Category 1A

SPECIFIC TARGET ORGAN TOXI CITY (SINGLE EXPOSURE) Category available

Pictograms



Signal word Warning

Hazard statements

Causes skin irritation

May cause an allergic skin reaction

Causes serious eye irritation

May cause respiratory irritation

Precautionary statements

Prevention

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

Wash hands thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

Response

IF ON SKIN: Wash with plenty of water and soap.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.

Call a doctor if you feel unwell.

If skin irritation occurs: Get medical advice/attention.

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

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

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Storage

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Disposal

Dispose of contents/container to an approved waste disposal plant.

Other hazards: No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture: Single Substance Common Chemical Name: Di-t-butyl dicarbonate Molecular Formula: $C_{10}H_{18}O_5$ (M.W. 218.25)

CAS Registry Number: 24424-99-5

EINECS No.: 246-240-1

UN No. & Hazard Class: This material is not classified as hazardous goods.

4. FIRST AID MEASURES

Inhalation: If inhaled, remove person to fresh air and keep comfortable for breathing. Wash your mouth and nasal

cavity thoroughly with clean water and get medical attention.

Skin contact: In case of skin contact, wash with plenty of water. Call a doctor, if you feel unwell. **Eye contact:** In case of contact with eyes, wash with plenty of water. Call a doctor, if you feel unwell.

Ingestion: If swallowed, rinse mouth. Call a doctor, if you feel unwell.

5. FIRE FIGHTING MEASURES

Extinguishing media: Water, carbon dioxide, powder extinguishing agent, foam extinguishing agent

Special extinguishing method: Extinguish with the above extinguishant. Fire extinguishing work from the windward side and wear respiratory protective equipment as necessary.

Specific hazards arising from the chemical product:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves.

Environmental precautions:

To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for contaminant and methods and materials for cleaning up:

Sweep up, place in a bag and hold for waste disposal. When leaked as a liquid, the liquid is absorbed by sawdust, dirt, sand, etc. and collected in an empty container.

7. HANDLING AND STORAGE

Handling: Wear appropriate protective equipment to avoid inhaling and touching eyes, skin and clothing.

Storage: Keep container tightly closed. Store in a cool dry place. Recommended Storage 2-10 °C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: No data available Exposure limits: No data available Personal protective equipment:

Wear appropriate respirator, chemical-resistant gloves, safety goggles, other protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Colorless clear liquid or white solid

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Reactivity in Water: No reactivity **Solubility:** Insoluble in water

10. STABILITY AND REACTIVITY

Stability: Stable in cool dark place storage. Avoid contact with base and acid.

Reactivity: No data available

Flammability: It does not fall under the dangerous goods of Fire Service Act. (Japanese regulation)

11. TOXICOLOGICAL INFORMATION

Acute toxicity: LD₅₀ (*p.o.* rat): 5,000 mg/kg GHS classification Not classified

LD₅₀ (inhalation, rat): 100 mg/m³ 4h **Skin irritation/corrosion:** GHS classification Category 2 **Sprious eva demaga/irritation:** GHS classification Category 2

Serious eye damage/irritation: GHS classification Category 2A

Respiratory or skin sensitization: Skin sensitization GHS classification Category 1A

Reproductive cell mutagenicity: No data available

Carcinogenicity: No data available Reproductive toxicity: No data available

STOT-single exposure: GHS classification Category available

STOT-repeated exposure: No data available **Aspiration hazard:** No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity: No data available

Persistence and degradability: No data available **Bioaccumulative potential:** No data available

Mobility in soil: No data available

13. DISPOSAL CONSIDERATIONS

Observe all federal, state and local environmental regulations.

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

14. TRANSPORT INFORMATION

UN number and UN classification: This material is not classified as hazardous goods.

15. REGULATORY INFORMATION

Not applicable.

Caution: The chemical, physical and toxicological properties of this product have not been thoroughly investigated. Exercise due care.

16. OTHER INFORMATION

Disclaimer: NOT FOR USE IN HUMANS. For R&D use only. Not for drug, household or other uses.

Reference:

- 1. JCIA: Japan Chemical Industry Association GHS support Guidelines (June, 2012)
- 2. JIS Z7253:2012 Hazard communication of chemicals based on GHS-Labelling and Safety Data Sheet (SDS)
- 3. NITE: National Institute of Technology and Evaluation (JAPAN) web site

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