Issue date 2023-04-21

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Cinobufagin

Product No. 17

Supplier Name IWASHIMA YAKUHIN Co., Ltd.

Address 4-201, Sakurazaka, Moriyama-ku, Nagoya City, Aichi Prefecture 463-0018, Japan

Tel +81-52-715-5601 Fax +81-52-715-5602

Email address info@iwashimayakuhin.co.jp

Recommended uses and restrictio For research use only, do not use for human or animals.

2. Hazards identification

GHS classification

Health hazards Acute toxicity - Oral Category 2

Acute toxicity (Dermal) Category 2 Acute toxicity - Inhalation (Dusl Category 1

Pictograms



Signal word Danger

Hazard statements Fatal if swallowed, in contact with skin, and inhaled.

Precautionary statements

Prevention Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Do not breathe dust.

Use only outdoors or in a well-ventilated area.

In case of inadequate ventilation, wear respiratory protection. Do not get in eyes, on skin, or on clothing. Wear protective

gloves/protective clothing.

Response If exposed or concerned: Get emergency medical help

immediately. Rinse mouth.

IF ON SKIN: Wash with plenty of water. If symptoms persist, call

a physician.

Take off contaminated clothing and wash it before reuse.

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

Store locked up.

Disposal Dispose of contents/container in accordance with

local/regional/national/international regulations.

Other hazards Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture

Chemical Name

Concentration or concentration range

Substance

Cinobufagin

98.00%

Storage

Formula (Molecular weight) C26H34O6 (442.54)

CAS RN 470-37-1

Notice Through Official Gazettes Reference Number

(ENCS)

Notice Through Official Gazettes

Reference Number

(ISHL)

PRTR -

Impurities and/or Additives Not applicable

4. FIRST AID MEASURES

Inhalation Get emergency medical help immediately.

Remove person to fresh air and keep comfortable for

Get emergency medical help immediately. Wash with plenty of w Skin contact

Eye contact Rinse cautiously with water for at least 15 minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. If

symptoms persist, call a physician.

Get emergency medical help immediately. Rinse mouth. Ingestion

Most important symptons/effects, acute and delayed

Protection of first-aiders Special notes for physicians Not available.

Not available. Not available.

5. FIRE FIGHTING MEASURES

Water spray (fog), Foam, Extinguishing powder, Carbon Suitable extinguishing media

dioxide (CO2) No information

Unsuitable extinguishing media

In the event of a fire, highly toxic decomposed products may

be generated. No information

Special extinguishing method

Specific hazards arising from the chemical product

Special protective actions for fire-fighters Wear self-contained breathing apparatus, protective gloves and

eye protection.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency

procedures

Storage

Keep unnecessary personnel away.

Avoid release to the environment.

Ensure adequate ventilation. Wear protect clothes while the

work

Environmental precautions

Methods and materials for contaminent and cleaning up

Collect spillage appropriately to prevent it from scattering.

For waste disposal, see section 13 of the SDS.

Secondary disaster prevention measures

Clean contaminated objects and areas thoroughly to remove

residual contamination.

7. HANDLING AND STORAGE

Handling Technical measures See section 8 of the SDS, perform engineering controls and wear

protective equipment.

Do not rough handling containers. Avoid contact and inhalation Safety handling precautions

of dust.

Wear protective equipment. Seal the container after use. After handling, wash hands. See section 10 of the SDS.

Hygiene measures Safe storage conditions

Contact avoidance

After handling, wash hands. Do not take food, drink and smoking while handling.

Store in a cool, dark place. Protect from sunlight.

Store locked up.

Safe storage conditions Glass.Keep container tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Administrative Control Levels No set up.

Occupational Exposure Limits Japan Society for Occupational | No set up. ACGIH

No set up.

Provide the safety shower facility, and hand and eye-wash **Engineering controls**

facility.

Use a local exhaust system

Personal protective equipment Respiratory protection Dust mask

> Hand protection Protection gloves

Eye/face protection Chemical safety goggles

Skin and body protection Lab Coat, long sleeve work clothes

No data available

Special note

Protective equipment should be inspected periodically according

to the protective inspection chart.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state

Other data

State Solid Colour White Odor Odorless 215℃

Melting point/freezing point Boiling point, initial boiling point and boiling range No data available Flammability No data available Upper/lower flammability or explosive limits No data available Flash point No data available Auto-ignition temperature No data available Decomposition temperature No data available На No data available Kinematic viscosity No data available Solubilities No data available n-Octanol/water partition coefficient:(log Pow) No data available Vapour pressure No data available Specific Gravity / Relative density No data available Vapour density No data available Particle characteristics No data available

10. STABILITY AND REACTIVITY

Reactivity No data available

Chemical stability Decompose by heat and light.

Hazardous reactions No data available

Conditions to avoid High temperature and direct sunlight.

Incompatible materials No data available Hazardous decomposition products No data available

1 1. TOXICOLOGICAL INFORMATION

(Oral)LD50: 144mg/kg (Mouse) Acute toxicity - Oral

Acute toxicity (Dermal) No data available Acute toxicity (Inhalation: gas) No data available No data available Acute toxicity (Inhalation : vapours) Acute toxicity - Inhalation (Dusts/Mists) No data available Skin irritation/corrosion No data available Serious eye damage/ irritation No data available Respiratory sensitization No data available Skin sensitization No data available No data available Reproductive cell mutagenicity No data available Carcinogenicity No data available Reproductive toxicity Reproductive toxicity, effects on or via lactation No data available No data available STOT-single exposure STOT-repeated exposure No data available Aspiration hazard No data available

12. ECOLOGICAL INFORMATION

No data available Hazardous to the aquatic Ecotoxicity

environment, acute hazard

Hazardous to the aquatic environment, long-term

No data available

Persistence and degradability

No data available No data available

Bioaccumulative potential

Mobility in soil No data available Hazard to the ozone layer No data available

13. DISPOSAL CONSIDERATIONS

Dispose of contents/container in accordance with local/regional/national/international Waste from residues

regulations.

Contaminated container and container of contents/container in accordance with local/regional/national/international

regulations.

14. TRANSPORT INFORMATION

International restriction

UN Number UN3462

Proper shipping name Toxins, extracted from living sources, solid,

n.o.s. (Cinobufagin)

UN classfication (Transport hazard class) Subsidiary hazard class π Packing group

Marine pollutant Not applicable

Domestic restriction

Marine Toxic Substances - Poison Aviation Toxic Substances - Poison

Rail and road Not applicable

15. REGULATORY INFORMATION

Industrial Safety and Health Act Not applicable Not applicable Pollutant Release and Transfer Register Law Poisonous and Deleterious Substances Control Law Not applicable Labor Standards Act Not applicable Act on the Regulation of Manufacture and Evaluation of Chemical Substances Not applicable Fire Service Act Not applicable Air Pollution Control Act Not applicable Water Pollution Prevention Act Not applicable Water Supply Service Act Not applicable Sewerage Act Not applicable Act on Prevention of Marine Pollution and Maritime Disaster Not applicable Act on Waste Management and Public Cleaning Not applicable

16. OTHER INFORMATION

Key literature references and sour NITE: National Institute of Technology and Evaluation (JAPAN): Nite Chemical Risk Information

Platform

Ministry of Health, Labour and Welfare: GHS model SDS information

Japanese Pharmacopoeia

Inagaki I(1972)[Phytochemistry] Shokubutukagaku (in Japanese) 4th edition. Ishiyaku

Publishers, Inc.

National Institutes of Health: PubChem

This SDS is according to JIS Z 7253: 2019.

This information in this Safety Data Sheet is designed only as a guidance for handling, and is not to be considered a waranty or quality specification of this product. The information provided is correct to the best of our knowledge, information and belief at the data of its publication and so on. However, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity.