

SAFETY DATA SHEET

CHEMICAL IDENTIFICATION

Catalogue Number: T-550

Product Name: Tetrodotoxin citrate

COMPOSITION/INFORMATION ON INGREDIENTS

CAS No.: 18660-81-6

Molecular Formula: $C_{11}H_{17}N_3O_8$

Molecular Weight: 319.27

HAZARDS IDENTIFICATION

Very toxic. Fatal by inhalation, ingestion, or absorption through skin.

Classification according to Regulation (EC) No 1272/2008:

Acute toxicity:

Inhalation (Category 2), H330, Fatal if inhaled.

Oral (Category 1), H300, Fatal if swallowed.

Skin (Category 1), H310, Fatal in contact with skin.

Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear protective gloves/eye protection/face protection

P284 - Wear respiratory protection

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P271 - Use only outdoors or in a well-ventilated area

P262 - Do not get in eyes, on skin, or on clothing

P270 - Do not eat, drink or smoke when using this product

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P330 - Rinse mouth

P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing

P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water

P361 - Remove/take off immediately all contaminated clothing

P264 - Wash face, hands and any exposed skin thoroughly after handling

P363 - Wash contaminated clothing before reuse

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

P501 - Dispose of contents/container to an approved waste disposal plant

P405 - Store locked up

FIRST AID MEASURES

In all cases of exposure, obtain medical advice immediately.

Inhalation: Remove to fresh air and monitor breathing. If breathing becomes difficult give oxygen. If breathing stops give artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Call a physician or poison control center immediately.

Skin Contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash before reuse. Consult a doctor.

Eye Contact: Flush with copious amounts of water. Consult a doctor.

Ingestion: Rinse mouth with plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards: Thermal decomposition can lead to release of toxic and corrosive gases/vapors.

Special Fire-fighting Procedures: Wear self-contained breathing apparatus for firefighting and protective clothing to prevent contact with skin and eyes.

ACCIDENTAL RELEASE MEASURES

Personal precautions: Do not take action without full personal protective equipment/clothing. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Avoid contact with skin and eyes. Avoid dust formation. Avoid breathing vapors, mist or gas.

Environmental Precautions: Do not let product enter drains.

Clean-up methods: Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically and collect in suitable container for disposal. Avoid dust formation. Clean contaminated surface thoroughly.

HANDLING AND STORAGE

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above -20°C (-4°F).

Handling: Keep away from heat. Keep away from source of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Avoid contact

with skin. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label.

EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters: National occupational exposure limits.

Engineering controls: Ensure adequate ventilation. Ensure laboratory is equipped with a safety shower and eye wash station. General industrial hygiene practice.

Personal protective equipment:

Eye/face: Well-fitting safety goggles.

Skin: Chemical resistant gloves. Wash and dry hands thoroughly after handling.

Body: Long-sleeved clothing. Remove and wash contaminated clothing before re-use.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Avoid prolonged or repeated exposure.

PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid.

Density: Not available.

Flash point: Not available.

Explosive properties: Not available.

Solubility: Deionized water.

STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Conditions to Avoid: Not available.

Incompatible materials: Strong oxidising/reducing agents.

Hazardous Combustion or Decomposition Products: May emit toxic gases such as carbon dioxide, carbon monoxide and nitrogen oxides upon thermal decomposition.

TOXICOLOGICAL INFORMATION

Acute toxicity: LD50 Oral Mouse: 0.334 mg/kg.

Chronic toxicity: Prolonged or repeated exposure increases the risk of irreversible effects.

May be harmful if inhaled, swallowed or absorbed through skin. May cause eye irritation. To the best of our knowledge, the chemical, physical and toxicological properties have not been investigated.

ECOLOGICAL INFORMATION

Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

The environmental impact of this product has not been fully investigated.

DISPOSAL CONDITIONS

Methods of disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

TRANSPORT INFORMATION

Contact Alomone Labs company for transportation information.

REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1272/2008.

OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and should be used as a guide only for experienced personnel. Always consult your safety advisor and follow local and national safety legislation. The absence of warning may not, under any circumstances, be taken to mean that no hazard exists. Alomone Labs disclaims all liability for any damage resulting from use of this material.

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