

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : (+)-Muscarine chloride

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No1272/2008
Acute toxicity, Inhalation (Category 1)
Acute toxicity, Dermal (Category 2)
Acute toxicity, Oral (Category 2)

According to European Directive 67/548/EEC as amended.
Very toxic by inhalation, in contact with skin and if swallowed.

Label elements

Pictogram



Signal word

Danger

Hazard statement(s)

H300 Fatal if swallowed.
H310 Fatal in contact with skin.
H330 Fatal if inhaled.

Precautionary statement(s)

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing.
P284 Wear respiratory protection.
P302 + P352 IF ON SKIN: Gently wash with plenty of soap and water.
P310 Immediately call a POISON CENTER or doctor/physician.

Hazard symbol(s)

T+ Very toxic

R-phrases(s)

R26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.

S-phrases(s)

S28 After contact with skin, wash immediately with plenty of soap and water.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S36/37 Wear suitable protective clothing and gloves.

Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : (+)-Tetrahydro- 4β -hydroxy- N,N,N,5α -tetramethyl- 2α -furanmethanaminium chloride
(+)-(2S,4R,5S)-Tetrahydro-4-hydroxy-N,N,N,5-tetramethyl-2-furanmethanaminium chloride

Formula : C9H20ClNO2

Molecular Weight : 209,71 g/mol

CAS-No.	EC-No.	Classification	Concentration
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[2s-(2?,4?,5?)]-[Tetrahydro-4-hydroxy-5-tetramethylfurfuryl]trimethylammonium chloride			
2303-35-7	218-963-2	-	-

Acute Tox. 1; Acute Tox. 2;
H300, H310, H330
T+, R26/27/28

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

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. Take victim immediately to hospital. 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.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe 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.

Conditions for safe storage

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Handle with gloves.

Eye protection

Face shield and safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form powder

Safety data

pH no data available

Melting point no data available

Boiling point no data available

Flash point no data available

Ignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Water solubility no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid

no data available

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Intravenous - mouse - 0,23 mg/kg

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be fatal if inhaled. May cause respiratory tract irritation.

Ingestion May be fatal if swallowed.

Skin May cause skin irritation. May be fatal if absorbed through skin.

Eyes May cause eye irritation.

Additional Information

RTECS: QG3500000

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR/RID

UN-Number: 2811 Class: 6.1 Packing group: II
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. ([2s-(2?,4?,5?)]-[Tetrahydro-4-hydroxy-5-tetramethylfurfuryl]trimethylammonium chloride)

IMDG

UN-Number: 2811 Class: 6.1 Packing group: II EMS-No: F-A, S-A
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. ([2s-(2?,4?,5?)]-[Tetrahydro-4-hydroxy-5-tetramethylfurfuryl]trimethylammonium chloride)

Marine pollutant: No

IATA

UN-Number: 2811 Class: 6.1 Packing group: II
Proper shipping name: Toxic solid, organic, n.o.s. ([2s-(2?,4?,5?)]-[Tetrahydro-4-hydroxy-5-tetramethylfurfuryl]trimethylammonium chloride)

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

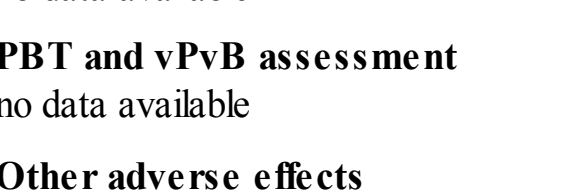
16. OTHER INFORMATION

Text of H-code(s) and R-phrase(s) mentioned in Section 3

Acute Tox. Acute toxicity
H300 Fatal if swallowed.
H310 Fatal in contact with skin.
H330 Fatal if inhaled.
T+ Very toxic
R26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.

Further information

For R&D use only. Not for drug, household or other uses.



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WARRANTY:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Lookchem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.