

MATERIAL SAFETY DATA SHEET

2-(Ethylmercuriomercapto)benzoic acid sodium salt

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

Product Name: Thimerosal Date: 29th April 2019 Version: Discofinechem6

Company : Discovery Fine Chemicals Ltd.,
Unit 4A, Old Forge Road, Ferndown Ind. Estate,
Wimborne, Dorset, BH21 7RR, United Kingdom.

Telephone : +44 (0)1202 874517

Fax : +44 (0)845 0944 385

E-mail address : info@discofinechem.com

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 2), H300

Acute toxicity, Inhalation (Category 2), H330

Acute toxicity, Dermal (Category 1), H310

Specific target organ toxicity - repeated exposure (Category 2), H373

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 1), H410

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

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Very toxic by inhalation, in contact with skin and if swallowed. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram



Signal word: Danger

Hazard statement(s)

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

H373 May cause damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

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

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing.

P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.

P302 + P352 + P310 IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER/doctor.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

P391 - Collect spillage.

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

Supplemental Hazard Statements - none

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)



R-phrases(s)

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

R33 Danger of cumulative effects.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases(s)

S13 Keep away from food, drink and animal feeding stuffs.

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

S36 Wear suitable protective clothing.

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

S60 This material and its container must be disposed of as hazardous waste.

S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

2.3 Other hazards - This substance/mixture contains no components considered to be either persistent, Bio-accumulative and toxic (PBT), or very persistent and very bio-accumulative (vPvB) at levels of 0.1% or higher.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms: 2-(Ethylmercuriomercurio)benzoic acid sodium salt; Ethylmercurithiosalicylic acid sodium salt

Mercury-([o-carboxyphenyl]thio)ethyl sodium salt; Sodium ethylmercurithiosalicylate

Cas No: 54-64-8 Molecular Weight: 404.81 g/mol

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component: **Thimerosal**

Cas No: 54-64-8 E.C.No: 200-210-4 Index No: 080-004-00-7

Classification Acute Tox. 2; Acute Tox. 1; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H300 +H310 + H330, H373, H410 Concentration: <= 100 %

Hazardous ingredients according to Directive 1999/45/EC

Component: **Thimerosal**

Cas No: 54-64-8 E.C.No: 200-210-4 Index-No: 080-004-00-7

Classification: T+, N, R26/27/28 - R33 - R50/53 Concentration: <= 100 %

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

4.1 Description of 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.

4.2 Most important symptoms and effects, both acute and delayed - The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed - no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Sulphur oxides, Sodium oxides, Mercury/mercury oxides.

5.3 Advice for firefighters - Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information - no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions - Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up - Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections - For disposal see section 13.

SECTION 7: Handling and storage

7.1 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.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

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

7.3 Specific end use(s) - no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

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

Personal protective equipment

Eye/face protection - Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection - Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril®

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril®

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de,

test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection - Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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).

Control of environmental exposure - Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance - Form: powder, Colour: Off white - Beige
- b) Odour - no data available
- c) Odour Threshold - no data available
- d) pH - 6.7 - 8.2 at 10 g/l at 20 °C
- e) Melting point/freezing point - 234 °C - Decomposes on heating.
- f) Initial boiling point and boiling range - no data available
- g) Flash point - 250 °C - closed cup
- h) Evaporation rate - no data available
- i) Flammability (solid, gas) - no data available
- j) Upper/lower flammability or explosive limits - no data available
- k) Vapour pressure - no data available
- l) Vapour density - no data available
- m) Relative density - 0.500 g/cm³
- n) Water solubility - no data available
- o) Partition coefficient: n-octanol/water - no data available
- p) Auto-ignition temperature - no data available
- q) Decomposition temperature - no data available
- r) Viscosity - no data available
- s) Explosive properties - no data available
- t) Oxidizing properties - no data available

9.2 Other safety information - Bulk density 500 kg/m³

10. STABILITY AND REACTIVITY

10.1 Reactivity - no data available

10.2 Chemical stability - Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions - no data available

10.4 Conditions to avoid - no data available

10.5 Incompatible materials - Strong oxidizing agents, Strong acids, Strong bases

10.6 Hazardous decomposition products - Other decomposition products - no data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - rat - 75 mg/kg

Behavioral: Ataxia. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Nutritional and Gross Metabolic: Changes in Metabolic acidosis.

LD50 Subcutaneous - rat - 98 mg/kg

Skin corrosion/irritation - no data available

Serious eye damage/eye irritation

Eyes - rabbit

Result: Mild eye irritation

Respiratory or skin sensitisation

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

Germ cell mutagenicity

Hamster

Lungs

Micronucleus test

Mouse

Micronucleus test

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

Additional Information - RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Liver - Irregularities - Based on Human Evidence

SECTION 12: Ecological information

12.1 Toxicity - Toxicity to fish LC50 - *Oncorhynchus mykiss* (rainbow trout) - 21.2 mg/l - 48.0 h

12.2 Persistence and degradability - no data available

12.3 Bio-accumulative potential - no data available

12.4 Mobility in soil - no data available

12.5 Results of PBT and vPvB assessment - PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects - Very toxic to aquatic life. no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product - Offer surplus and non-recyclable solutions to a licensed disposal company. 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.

SECTION 14: Transport information

14.1 UN number

ADR/RID: 2025 IMDG: 2025 IATA: 2025

14.2 UN proper shipping name

ADR/RID: MERCURY COMPOUND, SOLID, N.O.S. (Thimerosal)

IMDG: MERCURY COMPOUND, SOLID, N.O.S. (Thimerosal)

IATA: Mercury compound, solid, n.o.s. (Thimerosal)

14.3 Transport hazard class(es)

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

14.5 Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

14.6 Special precautions for user - no data available

SECTION 15: Regulatory information

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

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

Hazard statement(s)

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

H373 May cause damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

R-phrases(s)

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

R33 Danger of cumulative effects.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.

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