

According to Regulation (EC) No 1907/2006

# Thimerosal (2-(Ethylmercuriomer-capto)benzoic acid sodium salt) 15% w/v solution in water



Version number: 1.0  
Issued: 2023-09-13

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Trade name**

Thimerosal (2-(Ethylmercuriomer-capto)benzoic acid sodium salt) 15% w/v solution in water

**CAS number**

54-64-8

**EC number**

200-210-4

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Relevant identified uses**

Research and development.

**Not suitable for use in**

Not suitable for human consumption or veterinary purposes.

### 1.3. Details of the supplier of the safety data sheet

**Supplier**

Molekula Group

Street address

Molekula Ltd, Lingfield Way, Darlington,  
DL1 4XX Darlington  
United Kingdom

Telephone

+44 (0) 3302 000 333

Email

info@molekula.com

Web site

www.molekula.com

**Contact person**

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+44 (0) 7769276927

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## 1.4. Emergency telephone number

### Poison center/Additional emergency number

0344 892 0111 - National Poisons Information Service (Newcastle Centre)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

#### Classification

Hazardous to the aquatic environment — Acute hazard category 1  
Hazardous to the aquatic environment — Chronic hazard category 1  
Specific Target Organ Toxicity — Repeated exposure, hazard category 2  
Acute toxicity, oral, hazard category 2  
Acute toxicity, dermal, hazard category 1  
Acute toxicity, inhalation, hazard category 2

#### Hazard statements

H300, H310, H330, H373, H400, H410

### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

#### Hazard pictograms



#### Signal word

Danger

#### Hazard statements

H300 Fatal if swallowed.  
H310 Fatal in contact with skin.  
H330 Fatal if inhaled.  
H373 May cause damage to organs through prolonged or repeated exposure  
H410 Very toxic to aquatic life with long lasting effects.

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## Precautionary statements

P260 Do not breathe vapour.  
P262 Do not get in eyes, on skin, or on clothing.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P284 wear respiratory protection.  
P310 Immediately call a POISON CENTER/doctor.  
P314 Get medical advice/attention if you feel unwell.  
P330 Rinse mouth.  
P391 Collect spillage.  
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
P302 + P352 IF ON SKIN: Wash with plenty of water/.  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P405 Store locked up.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.

## 2.3. Other hazards

No data available

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Note
De-Ionised Distilled Water	7732-18-5 686-299-4 - -	85%	-	- - -	-
2-(Ethylmercuriomer-capto)benzoic acid sodium salt	54-64-8 200-210-4 - -	15%	Acute Tox. 2 - oral, Acute Tox. 1 - dermal, Acute Tox. 2 - inhalation, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1	H300 + H310 + H330, H373, H400, H410 M-acute=10 M-chro=10	-

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## **Substance additional information**

For the complete text of H- / EUH-statements mentioned in this section, see section 16.

## **SECTION 4: First aid measures**

### **4.1. Description of first aid measures**

IF exposed or concerned: Get medical advice/attention. First aiders/ medical personnel need to protect themselves. Show this Safety Data Sheet (SDS) to medical personnel.

#### **Inhalation**

Toxic if inhaled. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. If breathing stops, provide artificial respiration. For breathing difficulties oxygen may be necessary.

#### **Skin contact**

In case of skin contact: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Immediately call a POISON CENTER/doctor.

#### **Eye contact**

Remove contact lenses if present. Rinse eyes with water. Continue to rinse for at least 15 minutes and seek medical attention.

#### **Ingestion**

IF SWALLOWED: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only if the persons are fully conscious and awake). Administer activated charcoal (20 - 40g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

#### **Information for doctors**

No data available.

### **4.2. Most important symptoms and effects, both acute and delayed**

The severity of the symptoms described will vary dependant of the concentration and the length of exposure. See section 11 for more detailed information on health effects and symptoms.

#### **Inhalation**

Single exposure may cause the following adverse effects: Difficulty in breathing. Unconsciousness, possibly death.

#### **Skin contact**

Single exposure may cause the following adverse effects: Unconsciousness, possibly death.

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## **Eye contact**

Single exposure may cause the following adverse effects: Severe irritation. Unconsciousness, possibly death.

## **Ingestion**

Single exposure may cause the following adverse effects: Severe abdominal pain. May cause severe internal injury. Unconsciousness, possibly death.

## **4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically. No special treatment requirement.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.

#### **Unsuitable extinguishing media**

No specific fire fighting procedure given.

### **5.2. Special hazards arising from the substance or mixture**

Specific hazards: Toxic.

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Sulphurous gases (SO<sub>x</sub>). Mercury/mercury oxides. sodium oxides

### **5.3. Advice for firefighters**

#### **Special protective equipment for fire-fighters**

Evacuate area. Avoid breathing gas, fume, vapours or spray. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

Avoid inhalation of vapours and spray mist and contact with skin and eyes. For personal protection, see section 8.

### **6.2. Environmental precautions**

Avoid discharge into drains, water courses or onto the ground.

### **6.3. Methods and material for containment and cleaning up**

Collect spillage with shovel, broom or the like and reuse, if possible. Dispose of large amounts of spillage/waste according to agreement with local authorities.

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## 6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Preventive handling precautions

For precautions see section 2.2.

### 7.2. Conditions for safe storage, including any incompatibilities

Store at room temperature. Store in a dry place. Store in a closed container.

### 7.3. Specific end use(s)

No specific usage precautions noted.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No data available

### 8.2. Exposure controls

#### Personal Protective Equipment Symbols



#### Eye / face protection

Wear eye protection.

#### Hand protection

Wear protective gloves. Recommended gloves: Nitrile.

Glove Thickness: 0.11mm

Breakthrough time: 8 hours

Always inspect gloves before use. If signs of wear and tear are noticed then the gloves should be replaced.

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals. Wash contaminated skin thoroughly after handling.

#### Other skin protection

Wash skin thoroughly after handling.

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## **Respiratory protection**

Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided.

## **Environmental exposure controls**

Avoid discharge into drains.

## **SECTION 9: Physical and chemical properties**

### **9.1. Information on basic physical and chemical properties**

#### **Physical state**

Liquid

#### **Colour**

Colourless.

#### **Odour**

No data available

#### **Melting point / freezing point**

No data available

#### **Boiling point or initial boiling point and boiling range**

No data available

#### **Flammability**

No data available

#### **Lower and upper explosion limit**

No data available

#### **Flash point**

No data available

#### **Auto-ignition temperature**

No data available

#### **Decomposition temperature**

No data available

#### **pH**

No data available

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## Kinematic viscosity

No data available

## Solubility

No data available

## Partition coefficient n-octanol/water

No data available

## Vapour pressure

No data available

## Density and/or relative density

No data available

## Relative vapour density

No data available

## Particle characteristics

No data available

## 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

There are no known reactivity hazards associated with this product.

### 10.2. Chemical stability

Stable under normal temperature conditions. Stable under the prescribed storage conditions.

### 10.3. Possibility of hazardous reactions

Violent reactions possible with:

Strong acids.

Strong bases

Strong oxidising agents.

Strong reducing agents.

### 10.4. Conditions to avoid

There are no known conditions that are likely to result in a hazardous situation.

### 10.5. Incompatible materials

Strong acids. Strong bases Strong oxidising agents. Strong reducing agents.



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## 10.6. Hazardous decomposition products

See section 5.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Duration of exposure	Remarks
2-(Ethylmercuriomer-capto)benzoic acid sodium salt 54-64-8 / 200-210-4	Acute Toxicity (Oral):	5.1mg/kg	-	ATE = Acute Toxicity Estimate.
2-(Ethylmercuriomer-capto)benzoic acid sodium salt 54-64-8 / 200-210-4	Acute Toxicity (Dermal):	5.1mg/kg	-	ATE = Acute Toxicity Estimate.
2-(Ethylmercuriomer-capto)benzoic acid sodium salt 54-64-8 / 200-210-4	Acute Toxicity (Inhalation):	0.051 mg/l (dust/mist)	4 hours	ATE = Acute Toxicity Estimate.

#### Germ cell mutagenicity

Product / Substance name CAS / EC no.	Result	Exposure route	Species	Other
2-(Ethylmercuriomer-capto)benzoic acid sodium salt 54-64-8 / 200-210-4	Negative.	Ames test	Salmonella typhimurium	National Toxicology Program

#### STOT-repeated exposure

Product / Substance name CAS / EC no.	Target organs
2-(Ethylmercuriomer-capto)benzoic acid sodium salt	Central nervous system. Kidneys.

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Product / Substance name CAS / EC no.	Target organs
54-64-8 / 200-210-4	

## Aspiration hazard

Based on available data, the classification criteria are not met.

## 11.2. Information on other hazards

### Other information

Mercury compounds have a cytotoxic and protoplasmatoxic effect. Intoxication symptoms: acute: contact with eye causes severe lesions. Swallowing and inhalation of dusts damages mucous membranes of gastrointestinal and respiratory tract (metallic taste, nausea, vomiting, abdominal pain, bloody diarrhoea, intestinal burns, glottal oedema, aspiration pneumonia); drop in blood pressure, cardiac dysrhythmia, circulatory collapse, and renal failure; chronic: inflammation of the mouth with loss of teeth and mercurial line. The principal signs manifest themselves in the CNS (impaired speech, vision, hearing, and sensitivity, loss of memory, irritability, hallucinations, delirium inter alia).

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Acute fish toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
2-(Ethylmercuriomer-capto)benzoic acid sodium salt 54-64-8 / 200-210-4	LC50	7.5mg/l	24 hours	Ictalurus catus (catfish)

### 12.2. Persistence and degradability

No data available

### 12.3. Bioaccumulative potential

No data available

### 12.4. Mobility in soil

No data available

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## 12.5. Results of PBT and vPvB assessment

No data available

## 12.6. Endocrine disrupting properties

No data available

## 12.7. Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal considerations

Dispose of contents/container in accordance with local regulations.

## SECTION 14: Transport information

### 14.1. UN number

2024

### 14.2. UN proper shipping name

#### ADR / RID / ADN proper shipping name

MERCURY COMPOUND, LIQUID, N.O.S. (Thimerosal 15% w/v solution in water)

#### IMDG proper shipping name

MERCURY COMPOUND, LIQUID, N.O.S. (Thimerosal 15% w/v solution in water)

#### IATA proper shipping name

Mercury compound, liquid, n.o.s. (Thimerosal 15% w/v solution in water)

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## 14.3. Transport hazard class(es)

### Label

ADR/RID/ADN



6.1

IMDG



6.1

IATA



6.1

### ADR / RID Class

6.1

### ADR / RID Classification code

T4

### ADR / RID hazard identification number

60

### IMDG Class

6.1

### IATA Class

6.1

### ADN Class

6.1

### ADN Class Code

T4

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## 14.4. Packing group

ADR / RID / ADN: III  
IMDG: III  
IATA: III

## 14.5. Environmental hazards

### IMDG EmS

F-A, S-A

### IMDG Marine Pollutant

Yes

## 14.6. Special precautions for user

Tunnel restriction code: E  
Transport category: 2

## 14.7. Maritime transport in bulk according to IMO instruments

IBC Instruction: IBC03

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

This SDS is not mandated under REACH Regulation (EC) No 1907/2006 and is provided for information only.  
Subject to PIC

#### National regulations

No data available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

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## SECTION 16: Other information

### Phrase meaning

Aquatic Acute 1 - Hazardous to the aquatic environment — Acute hazard category 1  
Aquatic Chronic 1 - Hazardous to the aquatic environment — Chronic hazard category 1  
STOT RE 2 - Specific Target Organ Toxicity — Repeated exposure, hazard category 2  
Acute Tox. 2 - oral - Acute toxicity, oral, hazard category 2  
Acute Tox. 1 - dermal - Acute toxicity, dermal, hazard category 1  
Acute Tox. 2 - inhalation - Acute toxicity, inhalation, hazard category 2  
H300 Fatal if swallowed.  
H300 + H310 + H330 Fatal if swallowed, in contact with skin or if inhaled  
H310 Fatal in contact with skin.  
H330 Fatal if inhaled.  
H373 May cause damage to organs through prolonged or repeated exposure  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.