

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 18.03.2022

Version number 5 (replaces version 4)

Revision: 18.03.2022

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

#### 1.1 Product identifier

- **Trade name:** Ethylmercury thiosalicylic acid-Na-salt
- **Synonyma** Merthiolat; Thimerosal; Thiomersal



- **Article number:** 11340

- **CAS Number:**

54-64-8

- **EC number:**

200-210-4

- **Index number:**

080-004-00-7

- **Registration number**

A REACH Registration Number is not available for this product as the product or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

- **1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

- **Application of the substance / the mixture:** Laboratory chemicals

- **1.3 Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

SERVA Electrophoresis GmbH

Carl-Benz-Str. 7

D-69115 Heidelberg

Tel.: +49/6221/13840-0

FAX: +49/6221/13840-10

msds.info@serva.de

- **Information department:** Product Safety department Tel: +49 6221 13840-35

- **1.4 Emergency telephone number:**

Medical Emergency Information in case of poisoning:

Poison Information Center Mainz - Phone: +49 (0) 6131 19240

(advisory service in German or English language)

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**

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



GHS06

Acute Tox. 3

H301 Toxic if swallowed.

Acute Tox. 1

H310 Fatal in contact with skin.

Acute Tox. 2

H330 Fatal if inhaled.



GHS08

STOT RE 2

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



GHS09

Aquatic Acute 1

H400 Very toxic to aquatic life.

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*Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.***2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008:***The substance is classified and labelled according to the CLP regulation.***Hazard pictograms:** GHS06, GHS08, GHS09**Signal word:** Danger**Hazard statements:**

H301 Toxic if swallowed.

H310+H330 Fatal 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 statements**

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

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

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P314 Get medical advice/attention if you feel unwell.

**Labelling of packages where the contents do not exceed 125 ml****Hazard pictograms** GHS06, GHS08, GHS09**Signal word** Danger**Hazard statements**

H301 Toxic if swallowed.

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

**Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

**2.3 Other hazards****Results of PBT and vPvB assessment:****PBT:** PBT - assessment not available.**vPvB:** vPvB - assessment not available.**SECTION 3: Composition/information on ingredients****3.1 Substances****CAS No. Description:**

54-64-8 Thiomersal

**Identification number(s):****EC number:** 200-210-4**Index number:** 080-004-00-7**Description:****Empirical formula:**  $C_9H_9HgO_2SNa$ **MW:** 404,8**SECTION 4: First aid measures****4.1 Description of first aid measures****General information:***In case of irregular breathing or respiratory arrest provide artificial respiration.**Remove contaminated clothing.**Remove breathing apparatus only after contaminated clothing have been completely removed.***After inhalation:***Supply fresh air and to be sure call for a doctor.**Do not use mouth to mouth or mouth to nose resuscitation.**Use a respiration bag or breathing device.*

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- **After skin contact:**  
*Immediate wash with copious amounts of water and soap; rinse thoroughly; seek medical advice.*
- **After eye contact:**  
*Rinse opened eye for several minutes under running water. Remove present contact lenses, if easy to do, and continue rinsing. Consult ophthalmologist immediately.*
- **After swallowing:**  
*Wash out mouth. Call a doctor immediately.*  
*Induce vomiting, if person is conscious. Seek medical help.*
- **4.2 Most important symptoms and effects, both acute and delayed**  
*No further relevant information available.*
- **4.3 Indication of any immediate medical attention and special treatment needed**  
*No further relevant information available.*

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
*CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*
- **5.2 Special hazards arising from the substance or mixture:**  
*Formation of dangerous gases or vapours is possible in case of fire.*  
*In case of fire, the following can be formed, but not limited to:*  
*Sulphur oxides (SO<sub>x</sub>)*  
*Mercury vapours*  
*Carbon monoxide and carbon dioxide*
- **5.3 Advice for firefighters**
- **Protective equipment:** *Wear self-contained respiratory protective device.*
- **Additional information**  
*Collect contaminated fire fighting water separately. It must not enter the sewage system.*

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
*Wear protective clothing.*  
*Ensure adequate ventilation*  
*Avoid formation of dust.*  
*Avoid contact with the eyes and skin.*
- **6.2 Environmental precautions:**  
*Inform respective authorities in case of seepage into water course or sewage system.*  
*Do not allow to enter sewers/ surface or ground water.*
- **6.3 Methods and material for containment and cleaning up**  
*Dispose contaminated material as waste according to item 13.*  
*Pick up mechanically.*
- **6.4 Reference to other sections**  
*See Section 7 for information on safe handling*  
*See Section 8 for information on personal protection equipment.*  
*See Section 13 for disposal information.*

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling:**  
*Ensure good ventilation/exhaustion at the workplace.*  
*Open and handle receptacle with care.*
- **Information about protection against explosions and fires:** *Keep respiratory protective device available.*

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
  - Store only in the original receptacle.
  - Store at dry places in tightly closed receptacles.
- **Information about storage in one common storage facility:**
  - Store away from oxidising agents.
  - Do not store together with flammable solids.
- **Further information about storage conditions:**
  - Store under lock and key and with access restricted to technical experts or their assistants only.
  - Store receptacle in a well ventilated area.
  - Protect from exposure to the light.
  - Keep receptacle tightly sealed.
- **7.3 Specific end use(s):** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls:** No further data; see item 7.
- **Individual protection measures, such as personal protective equipment:**
- **General protective and hygienic measures:**
  - Use skin protection cream for skin protection.
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing
  - Store protective clothing separately.
  - Avoid contact with the eyes and skin.
  - Wash hands before breaks and at the end of work.
- **Breathing equipment:**
  - Short term filter device:
  - Hg-P3
- **Hand protection:**
  - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - Protective gloves.
  - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves:**
  - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material:**
  - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
  - Nitrile rubber, NBR
  - Chloroprene rubber, CR
- **Eye/face protection:** Safety glasses
- **Body protection:** Protective work clothing.

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### SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · General Information:

· Physical state:	Solid.
· Colour:	white or almost white
· Odour:	Recognisable
· Odour threshold:	Not determined.
· Melting point/freezing point:	232-233 °C
· Boiling point or initial boiling point and boiling range:	no information available
· Flammability:	Based on available data, the classification criteria of flammable solids are not met.
· Lower and upper explosion limit:	
· Lower:	no information available
· Upper:	no information available
· Flash point:	no information available
· Decomposition temperature:	no information available
· pH:	232 - 234 °C
· Viscosity:	6-8
· Kinematic viscosity:	no information available
· Dynamic viscosity:	no information available
· Solubility:	
· Water:	Soluble
· Partition coefficient n-octanol/water (log value):	no information available
· Vapour pressure:	no information available
· Density and/or relative density:	
· Density:	no information available
· Relative density:	no information available
· Particle characteristics	No information available

#### · 9.2 Other information

· Appearance:	There are no more data available.
· Form:	Crystalline powder
· Important information on protection of health and environment, and on safety:	
· Explosive properties:	Product does not present an explosion hazard.

### SECTION 10: Stability and reactivity

- 10.1 Reactivity: No further relevant information available.
- 10.2 Chemical stability:
- Thermal decomposition / conditions to be avoided:  
No decomposition if used and stored according to specifications.
- 10.3 Possibility of hazardous reactions: No further relevant informations available.
- 10.4 Conditions to avoid:  
high temperatures  
exposure to the light
- 10.5 Incompatible materials: strong oxidants, strong acids and bases, aluminium, reducing agents
- 10.6 Hazardous decomposition products: In case of fire: See Section 5

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### SECTION 11: Toxicological information

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

##### · Acute toxicity:

Toxic if swallowed.

Fatal in contact with skin or if inhaled.

#### · LD/LC50 values that are relevant for classification:

Oral	LD50	75 mg/kg (rat)
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- **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation:** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards:**
- **Endocrine disrupting properties:** Substance is not listed.

### SECTION 12: Ecological information

#### · 12.1 Toxicity:

· **Aquatic toxicity:** No further relevant information available.· **12.2 Persistence and degradability:** No further relevant information available.· **12.3 Bioaccumulative potential:** No further relevant information available.· **12.4 Mobility in soil:** No further relevant information available.· **12.5 Results of PBT and vPvB assessment:**· **PBT:** PBT - assessment not available.· **vPvB:** vPvB - assessment not available.· **12.6 Endocrine disrupting properties:** For information on endocrine disrupting properties see section 11.· **12.7 Other adverse effects:**· **Additional ecological information:**· **General notes:**

Very toxic for aquatic organisms

Water danger class 3 (German Regulation) (Assessment by list): extremely hazardous for water.

### SECTION 13: Disposal considerations

#### · 13.1 Waste treatment methods

##### · Recommendation

Disposal must be made according to official regulations.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

##### · Uncleaned packagings:

##### · Recommendation:

Disposal of uncleaned packagings must be made according to official regulations in the same manner as the product.

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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### SECTION 14: Transport information

· 14.1 UN number or ID number	UN2025
· ADR, IMDG, IATA	
· 14.2 UN proper shipping name	2025 MERCURY COMPOUND, SOLID, N.O.S.
· ADR	(Thiomersal), ENVIRONMENTALLY HAZARDOUS
· IMDG	MERCURY COMPOUND, SOLID, N.O.S. (Thiomersal),
· IATA	MARINE POLLUTANT
	MERCURY COMPOUND, SOLID, N.O.S. (Thiomersal)
· 14.3 Transport hazard class(es)	
· ADR, IMDG	
	
· Class:	6.1 Toxic substances.
· Label:	6.1
· IATA	
	
· Class	6.1 Toxic substances.
· Label	6.1
· 14.4 Packing group	
· ADR, IMDG, IATA	II
· 14.5 Environmental hazards	Environmentally hazardous substance, solid; Marine Pollutant
· Marine pollutant:	Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Toxic substances.
· Hazard identification number (Kemler code):	60
· EMS Number:	F-A,S-A
· Segregation groups	Heavy metals and their salts (including their organometallic compounds), mercury and mercury compounds
· Stowage Category	A
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	500 g
· Excepted quantities (EQ)	Code: E4
	Maximum net quantity per inner packaging: 1 g
	Maximum net quantity per outer packaging: 500 g
· Transport category	2
· Tunnel restriction code	D/E

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· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	500 g
· <b>Excepted quantities (EQ)</b>	Code: E4
	Maximum net quantity per inner packaging: 1 g
	Maximum net quantity per outer packaging: 500 g
· <b>UN "Model Regulation":</b>	UN 2253 MERCURY COMPOUND, SOLID, N.O.S. (THIOMERSAL), 6.1, II, ENVIRONMENTALLY HAZARDOUS

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category**  
H1 ACUTE TOXIC  
E1 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 20 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 18
- **Regulation (EU) No 649/2012**  
Annex I Part 1  
Annex I Part 3  
Annex V Part 2
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**  
Substance is not listed.
- **REGULATION (EU) 2019/1148**
- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS** (Upper limit value for the purpose of licensing under Article 5(3))  
Substance is not listed.
- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS** Substance is not listed.
- **Regulation (EC) No 273/2004 on drug precursors** Substance is not listed.
- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**  
Substance is not listed.
- **National regulations:**
- **Technical instructions (air):**

Class	Share in %
I	80-100
- **Water hazard class:** Water danger class 3 (Assessment by list): extremely hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Product safety department
- **Contact:** +49 6221 13840-35
- **Date of previous version:** 11.12.2017
- **Version number of previous version:** 4

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**· Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organisation*

*PBT: persistent, bioaccumulative, toxic substance (REACH)*

*vPvB: very persistent, very bioaccumulative substance (REACH)*

*REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals*

*CLP: Regulation on classification, labelling and packaging of substances and mixtures*

*bw: body weight*

*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*GHS: Globally Harmonised System of Classification and Labelling of Chemicals*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Acute Tox. 3: Acute toxicity – Category 3*

*Acute Tox. 1: Acute toxicity – Category 1*

*Acute Tox. 2: Acute toxicity – Category 2*

*STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2*

*Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1*

*Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1*

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