

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Thimerosal (sodium ethylmercuri thiosalicylate) pure

Revision date: 08.03.2024

Product code: 25291

Page 1 of 11

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

### 1.1. Product identifier

Thimerosal (sodium ethylmercuri thiosalicylate) pure

Substance name: Thiomersal  
CAS No: 54-64-8  
Index No: 080-004-00-7  
EC No: 200-210-4

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

#### Use of the substance/mixture

Laboratory chemical

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

#### Uses advised against

Do not use for private purposes (household).

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

Company name: AnalytiChem GmbH  
ACD  
Street: Stempelstraße 6  
Place: D-47167 Duisburg  
Telephone: 0203/5194-0  
Telefax: 0203/5194-290  
E-mail: info@analytichem.de  
Contact person: Abteilung Produktsicherheit  
Telephone: 0203/5194-107/117  
E-mail: produktsicherheit@analytichem.de  
Internet: www.analytichem.de  
Responsible Department: Abteilung Produktsicherheit

### 1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

### Further Information

A registration number is not available for this substance as the substance 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.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No 1272/2008

Acute Tox. 1; H310  
Acute Tox. 2; H330  
Acute Tox. 2; H300  
STOT RE 2; H373  
Aquatic Acute 1; H400  
Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

#### Regulation (EC) No 1272/2008

Signal word: Danger

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Thimerosal (sodium ethylmercuri thiosalicylate) pure

Revision date: 08.03.2024

Product code: 25291

Page 2 of 11

#### Pictograms:



#### Hazard statements

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 statements

P201 Obtain special instructions before use.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
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.  
P308 IF exposed or concerned:  
P310 Immediately call a POISON CENTER.

#### 2.3. Other hazards

No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Sum formula: C<sub>9</sub>H<sub>9</sub>HgNaO<sub>2</sub>S  
Molecular weight: 404,8 g/mol

#### Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
54-64-8	Thiomersal			100 %
	200-210-4	080-004-00-7		
	Acute Tox. 1, Acute Tox. 2, Acute Tox. 2, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1; H310 H330 H300 H373 H400 H410			

Full text of H and EUH statements: see section 16.

#### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
54-64-8	200-210-4	Thiomersal	100 %
		inhalation: ATE = 0,5 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); dermal: ATE = 5 mg/kg; oral: ATE = 5 mg/kg	

#### Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Self-protection of the first aider

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Thimerosal (sodium ethylmercuri thiosalicylate) pure

Revision date: 08.03.2024

Product code: 25291

Page 3 of 11

#### After inhalation

Provide fresh air.  
If breathing is irregular or stopped, administer artificial respiration.  
Call a physician immediately.

#### After contact with skin

After contact with skin, wash immediately with plenty of water and soap.  
Take off immediately all contaminated clothing and wash it before reuse.  
Call a physician immediately.

#### After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

#### After ingestion

Rinse mouth immediately and drink plenty of water.  
Call a physician immediately.

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

Irritant, Vomiting, Cardiac arrhythmias  
Gastrointestinal complaints, Abdominal pain  
Blood pressure drop, Circulatory collapse,

#### **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**

Co-ordinate fire-fighting measures to the fire surroundings.

##### **Unsuitable extinguishing media**

no restriction

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

Combustible solids  
Hazardous combustion products  
In case of fire may be liberated:  
Sulphur oxides  
mercury and its compounds  
In case of warming: Vapours are heavier than air, spread along floors and form explosive mixtures with air.  
Danger of dust explosion.

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

In case of fire: Wear self-contained breathing apparatus.  
Avoid contact with skin, eyes and clothes.

#### **Additional information**

Suppress gases/vapours/mists with water spray jet.  
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

### SECTION 6: Accidental release measures

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

##### **For non-emergency personnel**

Provide adequate ventilation.  
Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Remove persons to safety.  
Emergency procedures

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Thimerosal (sodium ethylmercuri thiosalicylate) pure

Revision date: 08.03.2024

Product code: 25291

Page 4 of 11

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

#### For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

##### For containment

- Cover drains.
- Prevent spread over a wide area (e.g. by containment or oil barriers).
- Collect in closed and suitable containers for disposal.
- Take up carefully when dry. Take up dust-free and set down dust-free.

##### For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

##### Other information

- Provide adequate ventilation.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.

#### 6.4. Reference to other sections

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

- Avoid exposure - obtain special instructions before use.
- Avoid dust formation.
- Do not breathe dust.
- Read label before use.
- Use extractor hood (laboratory).

#### Advice on protection against fire and explosion

Danger of dust explosion.

#### Advice on general occupational hygiene

- Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.
- Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

#### Further information on handling

- Wash hands and face before breaks and after work and take a shower if necessary.
- Take off immediately all contaminated clothing and wash it before reuse.
- Draw up and observe skin protection programme.

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

#### Requirements for storage rooms and vessels

- Store in a place accessible by authorized persons only.
- Store in a well-ventilated place. Keep container tightly closed.
- Store in a dry place.

#### Further information on storage conditions

- Protect against: Light
- storage temperature: +15°C - +25°C

### 7.3. Specific end use(s)

Laboratory chemicals

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Thimerosal (sodium ethylmercuri thiosalicylate) pure

Revision date: 08.03.2024

Product code: 25291

Page 5 of 11

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

### 8.2. Exposure controls

#### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Suitable eye protection:

goggles

Face protection umbrella

##### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

By long-term hand contact

Trade name/designation: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet (>, <) supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

##### Skin protection

Wear suitable protective clothing.

Wear full chemical protective clothing.

##### Respiratory protection

Respiratory protection necessary at: dust formation

Filtering device with filter or ventilator filtering device of type: Hg-P3

##### Environmental exposure controls

Do not allow to enter into surface water or drains.

## SECTION 9: Physical and chemical properties

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

Physical state:

solid

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Thimerosal (sodium ethylmercuri thiosalicylate) pure

Revision date: 08.03.2024

Product code: 25291

Page 6 of 11

Colour:	beige
Odour:	odourless
Melting point/freezing point:	232-233 °C
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	No data available
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Flash point:	250 °C
Auto-ignition temperature:	No data available
Decomposition temperature:	>233 °C
pH-Value (at 20 °C):	6,7 (10 g/l)
Viscosity / kinematic:	No data available
Water solubility: (at 20 °C)	1000 g/L
Solubility in other solvents	No data available
Partition coefficient n-octanol/water:	log Pow: -1,88
Vapour pressure:	No data available
Vapour pressure:	No data available
Density:	No data available
Bulk density:	~450 kg/m <sup>3</sup>
Relative vapour density:	No data available

#### 9.2. Other information

##### Information with regard to physical hazard classes

Explosive properties

Danger of dust explosion.

Sustaining combustion:

No data available

Self-ignition temperature

Solid:

No data available

Gas:

No data available

Oxidizing properties

Not oxidising.

##### Other safety characteristics

Evaporation rate:

No data available

Solvent separation test:

No data available

Solvent content:

No data available

Solid content:

No data available

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

No data available:

Viscosity / dynamic:

No data available

Flow time:

No data available

##### Further Information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

In case of warming: Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Danger of dust explosion.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Thimerosal (sodium ethylmercuri thiosalicylate) pure**

Revision date: 08.03.2024

Product code: 25291

Page 7 of 11

**10.2. Chemical stability**

Protect against: Light

**10.3. Possibility of hazardous reactions**

Violent reaction with:  
Oxidising agent, strong  
Acids  
Base  
Aluminium  
Reducing agent

**10.4. Conditions to avoid**

Light  
Heat

**10.5. Incompatible materials**

No data available

**10.6. Hazardous decomposition products**

In case of fire may be liberated:  
Sulphur oxides  
mercury and its compounds

**Further information**

No data available

**SECTION 11: Toxicological information**

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

**Toxicokinetics, metabolism and distribution**

Avoid exposure - obtain special instructions before use.

**Acute toxicity**

Fatal in contact with skin.  
Fatal if swallowed.  
Fatal if inhaled.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
54-64-8	Thiomersal				
	oral	ATE 5 mg/kg			
	dermal	ATE 5 mg/kg			
	inhalation vapour	ATE 0,5 mg/l			
	inhalation dust/mist	ATE 0,05 mg/l			

**Irritation and corrosivity**

Based on available data, the classification criteria are not met.  
slightly irritant but not relevant for classification.

**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

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. (Thiomersal)

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Thimerosal (sodium ethylmercuri thiosalicylate) pure

Revision date: 08.03.2024

Product code: 25291

Page 8 of 11

#### Aspiration hazard

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

#### Specific effects in experiment on an animal

No data available

#### Additional information on tests

No data available

#### Practical experience

No data available

#### 11.2. Information on other hazards

##### Other information

Irritant, Vomiting, Cardiac arrhythmias  
Gastrointestinal complaints, Abdominal pain  
Blood pressure drop, Circulatory collapse,

##### Further information

No data available

### SECTION 12: Ecological information

#### 12.1. Toxicity

Very toxic to aquatic life.  
Very toxic to aquatic life with long lasting effects.

#### 12.2. Persistence and degradability

No data available

#### 12.3. Bioaccumulative potential

log Pow: -1,88  
No indication of bioaccumulation potential.

#### 12.4. Mobility in soil

No data available

#### 12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

#### 12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

#### 12.7. Other adverse effects

Discharge into the environment must be avoided.

##### Further information

Do not allow to enter into surface water or drains.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.  
Send to a physico-chemical treatment facility under observation of official regulations.  
Do not mix with other wastes.  
Do not empty into drains.

##### Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.  
Handle contaminated packages in the same way as the substance itself.



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Thimerosal (sodium ethylmercuri thiosalicylate) pure**

Revision date: 08.03.2024

Product code: 25291

Page 9 of 11

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

**14.1. UN number or ID number:** UN 2025  
**14.2. UN proper shipping name:** MERCURY COMPOUND, SOLID, N.O.S. (Thiomersal)  
**14.3. Transport hazard class(es):** 6.1  
**14.4. Packing group:** II  
 Hazard label: 6.1  
 Classification code: T5  
 Special Provisions: 43 66 274 529  
 Limited quantity: 500 g  
 Excepted quantity: E4  
 Transport category: 2  
 Hazard No: 60  
 Tunnel restriction code: D/E

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** UN 2025  
**14.2. UN proper shipping name:** MERCURY COMPOUND, SOLID, N.O.S. (Thiomersal)  
**14.3. Transport hazard class(es):** 6.1  
**14.4. Packing group:** II  
 Hazard label: 6.1  
 Classification code: T5  
 Special Provisions: 43 66 274 529 802  
 Limited quantity: 500 g  
 Excepted quantity: E4

**Marine transport (IMDG)**

**14.1. UN number or ID number:** UN 2025  
**14.2. UN proper shipping name:** MERCURY COMPOUND, SOLID, N.O.S. (Thiomersal)  
**14.3. Transport hazard class(es):** 6.1  
**14.4. Packing group:** II  
 Hazard label: 6.1  
 Marine pollutant: P  
 Special Provisions: 43, 66, 274  
 Limited quantity: 500 g  
 Excepted quantity: E4  
 EmS: F-A, S-A

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** UN 2025  
**14.2. UN proper shipping name:** MERCURY COMPOUND, SOLID, N.O.S. (Thiomersal)  
**14.3. Transport hazard class(es):** 6.1  
**14.4. Packing group:** II  
 Hazard label: 6.1  
 Special Provisions: A3 A5 A6 A18  
 Limited quantity Passenger: 1 kg  
 Passenger LQ: Y644  
 Excepted quantity: E4  
 IATA-packing instructions - Passenger: 669  
 IATA-max. quantity - Passenger: 25 kg  
 IATA-packing instructions - Cargo: 676  
 IATA-max. quantity - Cargo: 100 kg

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: Yes

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Thimerosal (sodium ethylmercuri thiosalicylate) pure

Revision date: 08.03.2024

Product code: 25291

Page 10 of 11

Danger releasing substance: Thiomersal

#### 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

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

not applicable

### SECTION 15: Regulatory information

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

##### EU regulatory information

Information according to Directive 2012/18/EU (SEVESO III): H1 ACUTE TOXIC

Additional information: E1

##### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 3 - highly hazardous to water

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 1,12.

#### Abbreviations and acronyms

Acute Tox: Acute toxicity

STOT RE: Specific target organ toxicity - repeated exposure

Aquatic Acute: Acute aquatic hazard

Aquatic Chronic: Chronic aquatic hazard

ADR: Accord européen sur le transport 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 Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

#### Relevant H and EUH statements (number and full text)

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.

#### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Thimerosal (sodium ethylmercuri thiosalicylate) pure

Revision date: 08.03.2024

Product code: 25291

Page 11 of 11

The receiver of our product is singularly responsible for adhering to existing laws and regulations.