

**SAFETY DATA SHEET**

Create Date: 2020-11-04

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**SECTION 1: COMPANY AND PRODUCT INFORMATION**

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**1.1 Product identifiers**

Product name : Thimerosal  
Cat. Number : ZXB-03-101  
CAS number : 54-64-8  
Synonyms : 2-(Ethylmercuriomer-capto)benzoic acid sodium salt;  
Ethylmercurithiosalicylic acid sodium salt;  
Mercury-([o-carboxyphenyl]thio)ethyl sodium salt; Sodium ethylmercurithiosalicylate

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

Identified uses : For research and laboratory use only.

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

Address : Hinter den Gärten 56  
89173 Lonsee  
Deutschland

Email : info@zellx.de

Phone : +49(0)731 55211521

Fax : +49(0)731 55211719

**1.4 Emergency telephone number**

Emergency phone : +49(0)731 55211521

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**SECTION 2: HAZARDS IDENTIFICATION**

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**2.1 Classification of substance or mixture**

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  
Acute aquatic toxicity (Category 1), H400  
Chronic aquatic toxicity (Category 1), H410

**2.2 GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

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  
Acute aquatic toxicity (Category 1), H400  
Chronic aquatic toxicity (Category 1), H410

## 2.3 Label elements and precautionary statements

Pictogram	:	
Signal word	:	Danger
Hazard statement(s)	:	H300+310+330 - 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/vapors/spray. P262 - Do not get in eyes, on skin, or on clothing. P264 - Wash skin thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing. P284 - Wear respiratory protection. P301+310+330 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. P302+350+310 - IF ON SKIN: Gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/physician. P304+340+310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. P314 - Get medical advice/attention if you feel unwell. P362 - Take off contaminated clothing and wash before reuse. P391 - Collect spillage. P403+233 - Store in a well-ventilated place. Keep container tightly closed. P405 - Store locked up. P501 - Dispose of contents/container to an approved waste disposal plant.

## 2.4 Hazards not otherwise classified (HNOC) or not covered by GHS

No unclassified hazards known.

## 2.5 NFPA Rating

Health hazard	:	4
Fire hazard	:	1
Reactivity hazard	:	0

## 2.6 HMIS Rating

Health hazard	:	4
Chronic health hazard	:	*
Reactivity hazard	:	0
Flammability	:	1
Physical hazard	:	0

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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### 3.1 Substances

Substance	CAS#	EC#	Concentration
Thimerosal M.F: C <sub>9</sub> H <sub>9</sub> HgNaO <sub>2</sub> S M.W: 404.81 g/mol	54-64-8	200-210-4	<= 100 %

### 3.2 Hazardous components & classification

Acute Tox. 2; Acute Tox. 1; STOT RE 2 ; Aquatic Acute 1 ; Aquatic Chronic 1 ; H300+310+330, H373, H400, H410

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General advice

Consult a physician if symptoms are severe or persistent. Provide this data sheet to medical personnel. If product is spilled or leaked, evacuate area.

#### In case of inhalation

If inhaled, move person to fresh air and monitor breathing. If not breathing, give artificial ventilation. Consult a physician if symptoms are severe or persistent.

#### In case of skin contact

Immediately wash with excess soap and water. If spilled on clothing, remove all affected clothing. Consult a physician if symptoms are severe or persistent.

#### In case of eye contact

Flush eyes with water or eye wash solution as a precaution for 15 minutes. Consult a physician if symptoms are severe or persistent.

#### In case of ingestion

Only induce vomiting if recommended by medical personnel. If subject is unconscious, do not give anything by mouth. If conscious, rinse mouth with water. Consult a physician if symptoms are severe or persistent.

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

All known important symptoms are described in Section 2 and/or Section 11. No other important symptoms to report.

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

No special treatment indicated. Provide treatment in accordance with exhibited systems.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Suitable extinguishing media

Water spray, alcohol-resistant foam, dry chemical, and carbon dioxide extinguishers are suitable.

### 5.2 Unsuitable extinguishing media

No known unsuitable extinguishing media.

### 5.3 Special hazards arising from the substance

No special hazards are known to exist regarding combustion of this product.

### 5.4 Advice for firefighters

Wear protective gear, such as self-contained breathing apparatus, if necessary.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Provide suitable ventilation. Use any necessary personal protective equipment. Avoid contact with skin and eyes, and avoid creation and inhalation of vapor or dust. Keep all unnecessary personnel away.

**For personal protection see section 8**

### 6.2 Environmental precautions

Prevent product from entering public sewers and waterways.

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

Sweep up any spilled product. Keep in suitable, closed containers for disposal.

**For proper disposal see section 13**

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## SECTION 7: HANDLING AND STORAGE

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### 7.1 Precautions for safe handling

Provide suitable ventilation. Wear any necessary personal protective equipment.

**For precautions see section 2**

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

Storage conditions : Store upright, closed container in arid, ventilated environment.  
Storage class (TRGS 510): 6.1B: Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

Incompatible materials : Strong oxidizing agents, strong acids, and strong bases are incompatible with this product.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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### 8.1 Control parameters

Thimerosal; CAS No.: 54-64-8

TWA: 0.1 mg/m<sup>3</sup>. Basis: USA. ACGIH Threshold Limit Values (TLV). Remarks: Central Nervous System impairment, kidney damage, danger of cutaneous absorption, varies.

TWA: 0.01 mg/m<sup>3</sup>. Basis: USA. ACGIH Threshold Limit Values (TLV). Remarks: Central nervous System impairment, kidney damage, peripheral nervous System impairment, danger of cutaneous absorption, varies.

STEL: 0.03 mg/m<sup>3</sup>. Basis: USA. ACGIH Threshold Limit Values (TLV). Remarks: Central nervous System impairment, kidney damage, peripheral nervous System impairment, danger of cutaneous absorption, varies.

TWA: 0.05 mg/m<sup>3</sup>. Basis: USA. NIOSH Recommended Exposure Limits. Remarks: Potential for dermal absorption.

C: 0.1 mg/m<sup>3</sup>. Basis: USA. NIOSH Recommended Exposure Limits. Remarks: Potential for dermal absorption.

C: 0.01 mg/m<sup>3</sup>. Basis: California permissible exposure limits for chemical contaminants (Title 8, Article 107). Remarks: Skin.

PEL: 0.01 mg/m<sup>3</sup>. Basis: California permissible exposure limits for chemical contaminants (Title 8, Article 107). Remarks: Skin.

STEL: 0.03 mg/m<sup>3</sup>. Basis: California permissible exposure limits for chemical contaminants (Title 8, Article 107). Remarks: Skin.

C: 0.04 mg/m<sup>3</sup>. Basis: California permissible exposure limits for chemical contaminants (Title 8, Article 107). Remarks: Skin.

## 8.2 Engineering controls

Follow good industrial hygiene and safety practices when handling product.

## 8.3 Personal protective equipment

Eye/face protection : Use only government-approved safety glasses with side-shields.

Skin protection : Use gloves when handling product. Inspect gloves before use to ensure suitability for use. Remove without exposing skin to the gloves outer surface. Discard used gloves according to all pertinent laws and/or current good practices (cGXP). Wash hands with soap and water.

Body protection : Wear appropriate clothing. Ensure clothing is in good condition, with no holes or tears. When selecting clothing, consider the concentration and amount of substance to be handled.

Respiratory protection : Use only approved respirators and components which comply with CDC and NIOSH (US) or CEN (EU) regulations. Required only when vapors or aerosols are created.

Control of environmental exposure : Prevent product from entering the environment, especially through public sewers or waterways.

General hygiene considerations : Comply with general industrial hygiene practice guidelines.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 Information on basic physical and chemical properties

a)	Appearance	: Beige
b)	Physical states	: Solid
c)	Odor	: Not available
d)	Odor threshold	: Not available
e)	Melting point	: 234°C - Decomposes on heating
f)	Boiling point range	: Not available
g)	pH	: 6.7-8.2 @ 10 g/l at 20°C
h)	Density	: Not available
i)	Flash point	: 250°C - closed cup
j)	Evaporation rate	: Not available
k)	Flammability	: Not available
l)	Upper/lower flammability or explosive limits:	: Not available
m)	Vapor pressure	: Not available
n)	Vapor density	: Not available
o)	Relative density	: 0.500 g/cm <sup>3</sup>
p)	Water solubility	: Not available
q)	Partition coefficient:n-octanol/water	: Not available
r)	Autoignition temperature	: Not available
s)	Decomposition temperature	: Not available
t)	Kinematic viscosity	: Not available
u)	Explosive properties	: Not available
v)	Oxidizing properties	: Not available
w)	Solubility in other solvents	: Not available
x)	Surface tension	: Not available

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## SECTION 10: STABILITY AND REACTIVITY

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### 10.1 Reactivity

No special reactivity is known.

### 10.2 Chemical stability

Product is stable when stored and used as recommended.

### 10.3 Stability note(s)

No special or unusual instability known.

### 10.4 Polymerization

No known polymerization.

### 10.5 Possibility of hazardous reactions

No hazardous reactions are known.

### 10.6 Incompatible materials

Strong oxidizing agents, strong acids, and strong bases are incompatible with this product.

### 10.7 Hazardous decomposition products

Carbon oxides, sulfur oxides, sodium oxides, and mercury oxides can form if fire occurs.

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## SECTION 11: TOXICOLOGICAL INFORMATION

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### 11.1 Acute toxicity

LD50 Oral : Rat - 75 mg/kg

LD50 Dermal : No toxicity data available.

LC50 Inhalation : No toxicity data available.

### 11.2 Skin corrosion/irritation

No skin/corrosion irritation data available.

### 11.3 Serious eye damage/eye irritation

Mild eye irritation (Rabbit)

### 11.4 Respiratory or skin sensitization

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

### 11.5 Germ cell mutagenicity

No mutagenicity data available.

### 11.6 Carcinogenicity

IARC : Product and components are not regulated by the IARC.

ACGIH : Product and components are not regulated by the ACGIH.

NTP : Product and components are not regulated by the NTP.

OSHA : Product and components are not regulated by OSHA.

### 11.7 Reproductive toxicity

No reproductive toxicity data available.

### 11.8 Specific target organ toxicity – single exposure

No specific organ toxicity data available.

### 11.9 Specific target organ toxicity – repeated exposure

No specific organ toxicity data available.

### 11.10 Aspiration hazard

No aspiration hazard data available.

### 11.11 Additional Information

RTECS: No RTECS data available.

Liver - Irregularities - Based on Human Evidence.

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## SECTION 12: ECOLOGICAL INFORMATION

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### 12.1 Toxicity

No ecological toxicity data available.

### 12.2 Aquatic toxicity

Species: Rainbow Trout (*Oncorhynchus mykiss*). Duration: 48 hours. Results: LC50 21.2 mg/l

### 12.3 Persistence and degradability

No persistence/degradability data available.

#### **12.4 Bioaccumulative potential**

No bioaccumulation data available.

#### **12.5 Mobility in soil**

No soil mobility data available.

#### **12.6 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment is not required/was not conducted.

#### **12.7 Other adverse effect**

Very toxic to aquatic life.

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### **SECTION 13: DISPOSAL CONSIDERATIONS**

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#### **13.1 Product**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult and adhere to local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

#### **13.2 Packaging**

Packaging should be disposed of in the same manner as unused product.

#### **13.3 Recommendation**

Disposal must be made according to official regulations.

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### **SECTION 14: TRANSPORTATION INFORMATION**

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#### **14.1 DOT (US)**

UN#2025

Class: 6.1

Packing group: III

Proper shipping name: Mercury compounds, solid, n.o.s. (Thimerosal)

Marine Pollutant: Yes

Poison Inhalation Hazard: No

#### **14.2 IMDG**

UN#2025

Class: 6.1

Packing group: III

EMS-No: F-A, S-A

Proper shipping name: Mercury compounds, solid, n.o.s. (Thimerosal)

Marine Pollutant: Yes

#### **14.3 IATA**

UN#2025

Class: 6.1

Packing group: III

Proper shipping name: Mercury compounds, solid, n.o.s. (Thimerosal)

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### **SECTION 15: REGULATORY INFORMATION**

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#### **15.1 SARA**



SARA 302: This product and components are not subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: This product does not contain any components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.

SARA 311/312: Acute Health Hazard, Chronic Health Hazard

### 15.2 Clean water act (CWA)

No chemicals are present in this product that are subject to regulation under the Clean Water Act.

### 15.3 Right to know components

Massachusetts : No chemicals are present which require disclosure under the Massachusetts Right to Know Act.

Pennsylvania : Thimerosal CAS No.:54-64-8

New Jersey : Thimerosal CAS No.:54-64-8

California : WARNING! This product contains a chemical known to the State of  
proposition 65 California to cause cancer, birth defects, or other reproductive harm:  
components Thimerosal CAS No.:54-64-8

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## SECTION 16: OTHER INFORMATION

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### 16.1 Disclaimer

This product is offered by zellx-biochem.com for research, laboratory or further manufacturing use. Not for human use or consumption. The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchant-ability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall zellx-biochem.com be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if zellx-biochem.com has been advised of the possibility of such damages.

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### 16.2 Preparation Information

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