

Thimerosal

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 19/10/2010 Revision date 10/04/2018
Supersedes 02/08/2011

T0151

Version: 2.0

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

1.1. Product identifier

Product form : Substance
Trade name : Thimerosal
EC Index-No. : 080-004-00-7
EC-No. : 200-210-4
CAS-No. : 54-64-8
Product code : T0151
Formula : C9H9HgNaO2S
Synonyms : Thiomersal
Product group : Raw material

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

1.2.1. Relevant identified uses

Main use category : Professional use
Industrial/Professional use spec : For professional use only. Duchefa Biochemie B.V. products are intended only for "in vitro laboratory" research purposes.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Duchefa Biochemie B.V.
A. Hofmanweg 71
2031 BH Haarlem - The Netherlands
T +31(0)23-5319093 - F +31(0)23-5318027
info@duchefa.nl

1.4. Emergency telephone number

Emergency number : Supplier contact information:
+31(0)23-5319093 (M-F 09:00-17:00)
+31(0)6-30109355 (outside office hours)

Organisation/Company	Address	Comment
World Health Organization world directory of poison centres	http://apps.who.int/poisoncentres/	Consult website for a local poison centre

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 2 H300
Acute toxicity (dermal), Category 2 H310
Acute toxicity (inhalation:vapour) Category 2 H330
Specific target organ toxicity — Repeated exposure, Category 2 H373
Hazardous to the aquatic environment — Acute Hazard, Category 1 H400
Hazardous to the aquatic environment — Chronic Hazard, Category 1 H410

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS06

GHS08

GHS09

Signal word (CLP) : Danger

Hazard statements (CLP) : 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 (CLP) : P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective clothing, eye protection, face protection, protective gloves.
P260 - Do not breathe vapours, gas, mist, fume, spray, dust.
P273 - Avoid release to the environment.
P307+P311 - IF exposed: Call a POISON CENTER or doctor/physician.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%
Thimerosal	(CAS-No.) 54-64-8 (EC-No.) 200-210-4 (EC Index-No.) 080-004-00-7	> 97

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Assure fresh air breathing
If not breathing, give artificial respiration
Seek medical advice.
First-aid measures after skin contact : Wash skin with plenty of water and soap
Remove contaminated clothing and shoes.
First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

First-aid measures after ingestion : Drink plenty of water
Induce vomiting
Seek medical attention immediately.

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

No additional information available

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂)
Water spray.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Thermal decomposition generates :
- CO_x
- SO_x
Mercury (Hg).

5.3. Advice for firefighters

Precautionary measures fire : Exercise caution when fighting any chemical fire.
Firefighting instructions : Prevent fire fighting water from entering the environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ensure adequate air ventilation. Avoid raising dust.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing and eye/face protection.

6.2. Environmental precautions

Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Sweep up dry powder and dispose properly.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Protect from light
Store in dry, well-ventilated area
Store at ambient temperature.

7.3. Specific end use(s)

For professional use only. Duchefa Biochemie B.V. products are intended only for "in vitro laboratory" research purposes.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Thimerosal (54-64-8)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	0,01 mg/m ³

8.2. Exposure controls

Hand protection:

Type	Material	Permeation	Thickness (mm)	Standard
Gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,11	EN 374

Eye protection:

Safety glasses (to European standard EN 166 or equivalent)

Skin and body protection:

Protective clothing (with elasticated cuffs and closed neck). Chemical resistant apron

Respiratory protection:

Wear respiratory protection. Filter type P3 (EN 143)

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline powder.
Molecular mass	: 404,81 g/mol
Colour	: White.
Odour	: Characteristic.
Odour threshold	: No data available
pH	: 6,7 - 8,2 (10 g/l H ₂ O, 20 °C)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 232 - 233 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available

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Relative density	: No data available
Solubility	: Water: 1000 g/l (20 °C)
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

Bulk density : 500 kg/m³

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of storage, handling and use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Light (daylight).

10.5. Incompatible materials

Aluminium

Reducing agents.

10.6. Hazardous decomposition products

When heated to decomposition, emits dangerous fumes:

- CO_x
- SO_x.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Fatal if swallowed. Dermal: Fatal in contact with skin.
Inhalation:vapour: Fatal if inhaled.

Thimerosal (54-64-8)	
LD50 oral rat	75 mg/kg

Skin corrosion/irritation	: Not classified pH: 6,7 - 8,2 (10 g/l H ₂ O, 20 °C)
Serious eye damage/irritation	: Not classified pH: 6,7 - 8,2 (10 g/l H ₂ O, 20 °C)
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified

STOT-single exposure : Not classified
 STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.
 Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Avoid release to the environment.. Prevent entry to sewers and public waters. Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Avoid release to the environment.
 Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / IATA / IMDG

ADR	IMDG	IATA
14.1. UN number		
2025	2025	2025
14.2. UN proper shipping name		
MERCURY COMPOUND, SOLID, N.O.S.	MERCURY COMPOUND, SOLID, N.O.S.	Mercury compound, solid, n.o.s.
Transport document description		
UN 2025 MERCURY COMPOUND, SOLID, N.O.S., 6.1, II, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 2025 MERCURY COMPOUND, SOLID, N.O.S., 6.1, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 2025 Mercury compound, solid, n.o.s., 6.1, II, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)		
6.1	6.1	6.1

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ADR	IMDG	IATA
		
14.4. Packing group		
II	II	II
14.5. Environmental hazards		
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes
No supplementary information available		

14.6. Special precautions for user

. Overland transport

Classification code (ADR) : T5
 Special provisions (ADR) : 43, 66, 274, 529
 Limited quantities (ADR) : 500g
 Excepted quantities (ADR) : E4
 Transport category (ADR) : 2
 Special provisions for carriage - Operation (ADR) : S9, S19
 Hazard identification number (Kemler No.) : 60
 Orange plates :



Tunnel restriction code (ADR) : D/E
 EAC code : 2X

- Transport by sea

Special provisions (IMDG) : 43, 66, 274
 EmS-No. (Fire) : F-A
 EmS-No. (Spillage) : S-A
 Stowage category (IMDG) : A
 Properties and observations (IMDG) : Toxic if swallowed, by skin contact or by dust inhalation.

- Air transport

PCA Excepted quantities (IATA) : E4
 PCA Limited quantities (IATA) : Y644
 PCA limited quantity max net quantity (IATA) : 1kg
 PCA packing instructions (IATA) : 669
 PCA max net quantity (IATA) : 25kg
 CAO packing instructions (IATA) : 676
 CAO max net quantity (IATA) : 100kg
 Special provisions (IATA) : A3, A4, A6, A18
 ERG code (IATA) : 6L

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Thimerosal is not on the REACH Candidate List

Thimerosal is not on the REACH Annex XIV List

15.1.2. National regulations

Ensure all national/local regulations are observed.

Germany

Reference to AwSV

: Water hazard class (WGK) 3, severe hazard to waters (Classification according to VwVwS, Annex 1 or 2; ID No. 872)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV

: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen

: The substance is not listed

SZW-lijst van mutagene stoffen

: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding

: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid

: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling

: The substance is not listed

Denmark

Recommendations Danish Regulation

: Young people below the age of 18 years are not allowed to use the product

Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Indication of changes:

1.4	Emergency telephone	Modified	Added additional information
2	Classification (DSD/DPD)	Removed	Obsolete
8.2	Hand protection	Modified	Specified material, thickness, et cetera of gloves

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

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DPD	Dangerous Preparations Directive 1999/45/EC
DSD	Dangerous Substances Directive 67/548/EEC
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety Data Sheet

Data sources : Manufacturer. ECHA (European Chemicals Agency).

Full text of H- and EUH-statements:

Acute Tox. 2 (Dermal)	Acute toxicity (dermal), Category 2
Acute Tox. 2 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 2
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
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, Category 2
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.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

SDS Biochemicals version 2018

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product