

Thiomersal Solution 15% W/V Aqueous Solution

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Date of issue: 4/23/2020 Version: 1.0

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

1.1. Product identifier

Product form	: Mixture
Product name	: Thiomersal Solution 15% W/V Aqueous Solution
EC-No.	: 200-210-4
CAS-No.	: 54-64-8
Product code	: 90027547
Formula	: C ₉ H ₉ HgNaO ₂ S
Synonyms	: ETHYLMERCURITHIOSALICYLIC ACID, SODIUM SALT, SOLUTION, SP00455
Product group	: Blend

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

1.2.1. Relevant identified uses

Industrial/Professional use spec	: Industrial For professional use only
----------------------------------	---

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Scaffell Organics
Lingfield Way
Yarm Road Business Park
DL1 4XX Darlington - UK
T +44 (0) 1949 823777
info@scaffellorganics.com - www.scaffellorganics.com

1.4. Emergency telephone number

Emergency number	: +44 7590 545705
------------------	-------------------

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 3	H301
Acute toxicity (dermal), Category 2	H310
Acute toxicity (inhal.), Category 2	H330
Specific target organ toxicity — Repeated exposure, Category 2	H373
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) :
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 (CLP) :
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P308+P311 - IF exposed or concerned: Call a POISON CENTER or doctor.
P410 - Protect from sunlight.

2.3. Other hazards

No additional information available

Thiomersal Solution 15% W/V Aqueous Solution

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Water	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	80 - 90	Not classified
Thiomersal	(CAS-No.) 54-64-8 (EC-No.) 200-210-4	10 - 20	Acute Tox. 3 (Oral), H301 Acute Tox. 2 (Dermal), H310 Acute Tox. 2 (Inhalation:dust,mist), H330 STOT RE 2, H373 Aquatic Chronic 1, H410

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If possible show this sheet, if not available show packaging or label. Do not leave affected person unattended. Never give anything by mouth to an unconscious person.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. Get immediate medical advice/attention.
First-aid measures after skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Do not remove clothing if it sticks to the skin. Get immediate medical advice/attention.
First-aid measures after eye contact	: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Rinse mouth out with water. Get immediate medical advice/attention. Do not induce vomiting. Do not give an unconscious person anything to drink.

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

Symptoms/effects	: Toxic if swallowed. Fatal if inhaled. Fatal in contact with skin.
Symptoms/effects after inhalation	: Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Loss of consciousness. May be fatal if inhaled.
Symptoms/effects after skin contact	: Redness, pain. Loss of consciousness. Death.
Symptoms/effects after eye contact	: redness, itching, tears. More severe symptoms are also possible.
Symptoms/effects after ingestion	: Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Swallowing a small quantity of this material will result in serious health hazard. Abdominal pain, nausea. Vomiting. Damage to kidneys and liver.

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

Get immediate medical advice/attention.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Carbon oxides (CO, CO ₂). Nitrogen oxides. Sulphur oxides. Sodium Oxides. Mercury oxide.
--	--

5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: seal off low-lying areas. Keep container tightly closed and away from heat, sparks and flame.
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment. Use extinguishing agent suitable for surrounding fire.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Warn all persons of toxic hazard.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Isolate from fire, if possible, without unnecessary risk. No flames, no sparks. Eliminate all sources of ignition.
------------------	--

Thiomersal Solution 15% W/V Aqueous Solution

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Evacuate unnecessary personnel. Mark out the contaminated area with signs and prevent access to unauthorized personnel. Avoid contact with skin, eyes and clothing. Do not breathe vapours. Do not touch or walk on the spilled product.
Measures in case of dust release	: Keep upwind. Ventilate the area thoroughly, especially low lying areas (basements, workpits etc).

6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection. Use self-contained breathing apparatus and chemically protective clothing.
Emergency procedures	: Ventilate area. Stop leak if safe to do so.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
-------------------------	--

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure that there is a suitable ventilation system. Do not handle in a confined space. Fumes extraction at source. Avoid formation of vapours. Do not breathe vapours.
Hygiene measures	: Take off immediately all contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. Always wash hands after handling the product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Ensure adequate ventilation, especially in confined areas.
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Heat sources.
Incompatible products	: Strong oxidisers. Strong acids. Strong bases.
Incompatible materials	: Light sensitive. Direct sunlight. Heat sources.
Storage area	: Store at ambient temperature. Store in a dry place. Store in a closed container. Store in a dark area.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety procedures. Floors should be impervious, resistant to liquids and easy to clean. Ensure exposure is below occupational exposure limits (where available).

Personal protective equipment:

Avoid contact with skin and eyes. Avoid inhalation of vapours. Wear recommended personal protective equipment.

Materials for protective clothing:

Use chemically protective clothing

Hand protection:

Always wash hands after handling the product. The protective gloves to be used must comply with the specifications of the regulation 2016/425 and the resultant standard EN 374. Wear protective gloves.

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
	Butyl rubber	6 (> 480 minutes)	0.4		EN 374

Eye protection:

Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Use eye protection according to EN 166, designed to protect against liquid splashes.

Thiomersal Solution 15% W/V Aqueous Solution

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Type	Use	Characteristics	Standard
Face shield, Safety goggles	vapours, Droplet	tightly fitting safety goggles, With side shields	EN 166

Skin and body protection:

Keep suitable chemically resistant protective clothing readily available for emergency use. Emergency safety showers should be available in the immediate vicinity of any potential exposure

Type	Standard
Total impervious protective suits, gloves, and boots must be worn to prevent any contact with the product	EN 14605

Respiratory protection:

Keep self contained breathing apparatus readily available for emergency use. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

Device	Filter type	Condition	Standard
Respiratory protective device with a particle filter	ABEK	Vapour protection, Protection for Liquid particles	EN 14387

Environmental exposure controls:

Avoid formation of vapours. Prevent entry to sewers and public waters.

Other information:

Do not eat, drink or smoke when using this product. Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Colorless liquid.
Colour	: Colourless.
Odour	: Characteristic odour.
Odour threshold	: No data available
pH	: 6 - 8
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 232 - 233
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)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: ≥ 1.1
Solubility	: soluble in water.
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

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

Thiomersal Solution 15% W/V Aqueous Solution

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

10.4. Conditions to avoid

Light sensitive. Protect from sunlight. Heat sources.

10.5. Incompatible materials

Strong oxidizers. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : Carbon oxides (CO, CO₂). Nitrogen oxides. Sulphur oxides. Sodium Oxides. Mercury oxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Oral: Toxic if swallowed.
Acute toxicity (dermal) : Dermal: Fatal in contact with skin.
Acute toxicity (inhalation) : Inhalation: Fatal if inhaled.

Thiomersal Solution 15% W/V Aqueous Solution (54-64-8)	
LD50 oral rat	73 mg/kg
ATE CLP (dermal)	50 mg/kg bodyweight
ATE CLP (gases)	100 ppmv/4h
ATE CLP (vapours)	0.5 mg/l/4h
ATE CLP (dust,mist)	0.05 mg/l/4h

Thiomersal (54-64-8)	
LD50 oral rat	75 mg/kg
Skin corrosion/irritation	: Not classified pH: 6 - 8
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified pH: 6 - 8
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: 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	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Toxic if swallowed. Fatal in contact with skin.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

Thiomersal (54-64-8)	
LC50 fish 1	21.2 mg/l 48h - Oncorhynchus mykiss (rainbow trout)
12.2. Persistence and degradability	
Thiomersal Solution 15% W/V Aqueous Solution (54-64-8)	
Persistence and degradability	Not readily biodegradable.

Thiomersal Solution 15% W/V Aqueous Solution

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Thiomersal (54-64-8)	
Persistence and degradability	No data available.

Water (7732-18-5)	
Persistence and degradability	No data available.

12.3. Bioaccumulative potential

Thiomersal Solution 15% W/V Aqueous Solution (54-64-8)	
Bioaccumulative potential	Potentially bioaccumulable.

Thiomersal (54-64-8)	
Bioaccumulative potential	No data available.

Water (7732-18-5)	
Bioaccumulative potential	No bioaccumulation data 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.

SECTION 13: Disposal considerations





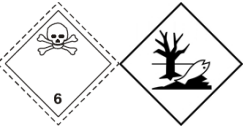
13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
2024	2024	2024	2024	2024
14.2. UN proper shipping name				
MERCURY COMPOUND, LIQUID, N.O.S.	MERCURY COMPOUND, LIQUID, N.O.S.	Mercury compound, liquid, n.o.s.	MERCURY COMPOUND, LIQUID, N.O.S.	MERCURY COMPOUND, LIQUID, N.O.S.
Transport document description				
UN 2024 MERCURY COMPOUND, LIQUID, N.O.S. (Thimerosal (2-(Ethylmercuriomer-capto)benzoic acid sodium salt) 15% w/v solution in water), 6.1, III, (E), ENVIRONMENTALLY HAZARDOUS	UN 2024 MERCURY COMPOUND, LIQUID, N.O.S. (Thimerosal (2-(Ethylmercuriomer-capto)benzoic acid sodium salt) 15% w/v solution in water), 6.1, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 2024 Mercury compound, liquid, n.o.s. (Thimerosal (2-(Ethylmercuriomer-capto)benzoic acid sodium salt) 15% w/v solution in water), 6.1, III, ENVIRONMENTALLY HAZARDOUS	UN 2024 MERCURY COMPOUND, LIQUID, N.O.S. (Thimerosal (2-(Ethylmercuriomer-capto)benzoic acid sodium salt) 15% w/v solution in water), 6.1, III, ENVIRONMENTALLY HAZARDOUS	UN 2024 MERCURY COMPOUND, LIQUID, N.O.S. (Thimerosal (2-(Ethylmercuriomer-capto)benzoic acid sodium salt) 15% w/v solution in water), 6.1, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
6.1	6.1	6.1	6.1	6.1
				
14.4. Packing group				
III	III	III	III	III

Thiomersal Solution 15% W/V Aqueous Solution

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830


14.5. Environmental hazards

Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
-------------------------------------	---	-------------------------------------	-------------------------------------	-------------------------------------

No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: T4
Special provisions (ADR)	: 43, 274
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	: MP19
Tank code (ADR)	: L4BH
Tank special provisions (ADR)	: TU15, TE19
Vehicle for tank carriage	: AT
Transport category (ADR)	: 2
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13, CV28
Special provisions for carriage - Operation (ADR)	: S9
Hazard identification number (Kemler No.)	: 60
Orange plates	: 

Tunnel restriction code (ADR)	: E
EAC code	: 2X
APP code	: B

Transport by sea

Special provisions (IMDG)	: 43, 66, 223, 274
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-A
Stowage category (IMDG)	: B
Stowage and handling (IMDG)	: SW2
Properties and observations (IMDG)	: Toxic if swallowed, by skin contact or by inhalation.

Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y642
PCA limited quantity max net quantity (IATA)	: 2L
PCA packing instructions (IATA)	: 655
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 663
CAO max net quantity (IATA)	: 220L
Special provisions (IATA)	: A3, A4, A6, A18
ERG code (IATA)	: 6L

Inland waterway transport

Classification code (ADN)	: T4
Special provisions (ADN)	: 43, 274, 802
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Equipment required (ADN)	: PP, EP, TOX, A
Ventilation (ADN)	: VE02
Number of blue cones/lights (ADN)	: 0

Thiomersal Solution 15% W/V Aqueous Solution

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Rail transport

Classification code (RID)	: T4
Special provisions (RID)	: 43, 274
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Mixed packing provisions (RID)	: MP19
Tank codes for RID tanks (RID)	: L4BH
Special provisions for RID tanks (RID)	: TU15
Transport category (RID)	: 2
Special provisions for carriage – Packages (RID)	: W12
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW28, CW31
Colis express (express parcels) (RID)	: CE8
Hazard identification number (RID)	: 60

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

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances
Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

SECTION 16: Other information

Data sources	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	: None.

Full text of H- and EUH-statements:	
Acute Tox. 2 (Dermal)	Acute toxicity (dermal), Category 2
Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H301	Toxic 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.

SDS EU (REACH Annex II)

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.