



# SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Issue Date 18-May-2005

Revision Date 14-Feb-2023

Version 3.4

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Code(s)** 230166  
**Product Name** FerroZine<sup>TS</sup> Iron Reagent Solution Pillows  
**Unique Formula Identifier (UFI)** MMC1-2ATQ-P003-Y9WV  
**Molecular weight** Not applicable

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

**Recommended Use** Water Analysis. Indicator for iron.  
**Uses advised against** Consumer use

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

#### Supplier

HACH UK  
Laser House  
Ground Floor, Suite B  
Waterfront Quay, Salford Quays  
GB - Manchester, M50 3XW  
Tel. +44 (0) 161 872 1487  
info-uk@hach.com

HACH Ireland  
Unit 34 GB Business Park  
Little Island  
IRL-Co. Cork  
T45 H681  
Tel. +353 (0)146 02 522  
info-ie@hach.com

### 1.4. Emergency telephone number

UK: Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service  
IE: National Poisons Information Centre (NPIC) 01 809 2566 (24/7)

## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute toxicity - Oral	Category 3 - (H301)
Acute toxicity - Inhalation (Vapours)	Category 4 - (H332)
Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)

Skin corrosion/irritation	Category 1 Sub-category B - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)
Respiratory sensitisation	Category 1B - (H334)
Skin sensitisation	Category 1 - (H317)
Chronic aquatic toxicity	Category 3 - (H412)

## 2.2. Label elements

Contains Thioglycolic acid 30%, Acetic acid, mercapto-, monoammonium salt



### Signal word

Danger

### Hazard statements

H301 - Toxic if swallowed

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H332 - Harmful if inhaled

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H412 - Harmful to aquatic life with long lasting effects

### Precautionary Statements - EU (§28, 1272/2008)

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician

P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

## 2.3. Other hazards

May be harmful in contact with skin.

### PBT & vPvB

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT)

This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Not applicable

### 3.2 Mixtures

Chemical name	CAS No. EC No. Index No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Thioglycolic acid	68-11-1 200-677-4 607-090-00-6	20 - 30%	Acute Tox. 3 - H301 Acute Tox. 3 - H311 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Acute Tox. 3 - H331	-	-	-

**Full text of H- and EUH-phrases: see section 16**

Acute Toxicity Estimate No information available

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Thioglycolic acid 68-11-1	73 mg/kg	848 mg/kg	None reported	None reported	None reported

## Section 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

<b>General advice</b>	Take off contaminated clothing and shoes immediately. Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. If breathing is difficult, (trained personnel should) give oxygen. Get medical attention immediately if symptoms occur.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction. Get immediate medical attention.
<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention.
<b>Self-protection of the first aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid breathing vapours or mists. Use personal protective equipment as required. See section 8 for more information.

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

**Symptoms** Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.

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

**Note to doctors** May cause sensitisation in susceptible persons. Treat symptomatically.

## Section 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable extinguishing media</b>	No information available.

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

<b>Specific hazards arising from the chemical</b>	The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapours. Product is or contains a sensitiser. May cause sensitisation by skin contact.
<b>Hazardous combustion products</b>	carbon monoxide, carbon dioxide, nitrogen oxides, Sulphur oxides, Ammonia.

### 5.3. Advice for firefighters

<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
<b>Additional information</b>	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## Section 6: ACCIDENTAL RELEASE MEASURES

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

<b>Personal precautions</b>	Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid breathing vapours or mists.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

### 6.2. Environmental precautions

<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.
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### 6.3. Methods and material for containment and cleaning up

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.

### 6.4. Reference to other sections

<b>Reference to other sections</b>	See section 8 for more information. See section 13 for more information.
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## Section 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Avoid breathing vapours or mists.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and after work. Barrier creams may help to protect the exposed areas of skin.

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

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Protect from moisture. Store away from other materials. Store locked up. Accessible only for authorized persons.

## **7.3. Specific end use(s)**

**Specific use(s)** Analytical reagent.  
**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

# **Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

## **8.1. Control parameters**

### **Exposure Limits**

Chemical name	European Union	United Kingdom	Ireland
Thioglycolic acid 68-11-1	-	TWA: 1 ppm TWA: 3.8 mg/m <sup>3</sup> STEL: 3 ppm STEL: 11.4 mg/m <sup>3</sup>	TWA: 1 ppm TWA: 5 mg/m <sup>3</sup> STEL: 3 ppm STEL: 15 mg/m <sup>3</sup>

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

**Additional information** No information available.

## **8.2. Exposure controls**

**Engineering controls** Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Personal protective equipment**  
**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Hand protection** Wear suitable gloves. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374-1:2016 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III acco.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
Long term (repeated)	Wear protective Viton™ gloves	0,70 mm	>480 minutes
Short term	Wear protective nitrile rubber gloves	0,20 mm	>30 minutes

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing.

**Respiratory protection** Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**Recommended filter type:** ABEK-P3.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and after work. Barrier creams may help to protect the exposed areas of skin.

**Environmental exposure controls** Do not allow into any sewer, on the ground or into any body of water.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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

**Physical state** Liquid

**Colour** yellow

**Odour** Strong, skunk-like

**Odour threshold** No data available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>Molecular weight</b>	Not applicable	
<b>pH</b>	3.5	@ 20 °C
<b>Melting point / freezing point</b>	~ -9 °C / 15.8 °F	
<b>Initial boiling point and boiling range</b>	~ 102 °C / 215.6 °F	
<b>Evaporation rate</b>	0.21 (water = 1)	
<b>Vapour pressure</b>	2.325 mm Hg / 0.31 kPa at 20 °C / 68 °F	
<b>Relative vapor density</b>	0.62	
<b>Specific Gravity</b>	1.310	
<b>Partition coefficient</b>	No data available	
<b>Soil Organic Carbon-Water Partition Coefficient</b>	No data available	
<b>Autoignition temperature</b>	No data available	
<b>Decomposition temperature</b>	No data available	
<b>Dynamic viscosity</b>	No data available	

Kinematic viscosity  
Relative density

No data available  
1.310 g/mL

@ 20 °C

### Solubility(ies)

#### Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

#### Solubility in other solvents

Chemical Name	Solubility classification	Solubility	Solubility Temperature
Acid	Soluble	> 1000 mg/L	25 °C / 77 °F

#### Metal Corrosivity

Steel Corrosion Rate

0.56 mm/yr / 0.02 in/yr

Aluminum Corrosion Rate

0.1 mm/yr / 0 in/yr

#### Explosive properties

Upper explosion limit

No data available

Lower explosion limit

No data available

#### Flammable properties

Flash point

No data available

#### Flammability

Upper flammability limit:

No data available

Lower flammability limit

No data available

#### Oxidising properties

No data available.

#### Bulk density

Not applicable

### 9.2. Other information

No information available.

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Reactivity

No information available.

### 10.2. Chemical stability

Stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions

Reacts with many compounds.

Hazardous polymerisation

Hazardous polymerisation does not occur.

### 10.4. Conditions to avoid

**Conditions to avoid** Extremes of temperature and direct sunlight. Exposure to air or moisture over prolonged periods.

#### 10.5. Incompatible materials

**Incompatible materials** Acids. Bases. Oxidising agent.

#### 10.6. Hazardous decomposition products

**Hazardous Decomposition Products** Thermal decomposition can lead to release of irritating and toxic gases and vapours.

### Section 11: TOXICOLOGICAL INFORMATION

#### 11.1. Information on toxicological effects

##### Acute toxicity

Toxic if swallowed

Harmful if inhaled

Mixture Test data reported below.

##### **Oral Exposure Route:**

<u>Endpoint type</u>	<u>Reported dose</u>	<u>Exposure time</u>	<u>Toxicological effects</u>
Rat	190 mg/kg	Single generation	Abnormalities of the lungs Abnormalities of the liver Abnormalities of the kidneys Abnormalities of the spleen Abnormalities of the gastrointestinal tract

Substance Test data reported below.

##### **Oral Exposure Route:**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Acetic acid, mercapto-, monoammonium salt	Rat LD <sub>50</sub>	3500 mg/kg	None reported	None reported	RTECS
Thioglycolic acid	Rat LD <sub>50</sub>	73 mg/kg	None reported	None reported	RTECS

##### **Dermal Exposure Route:**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Thioglycolic acid	Rat LD <sub>50</sub>	848 mg/kg	None reported	None reported	RTECS

##### **Inhalation (Dust/Mist) Exposure Route:**

##### **Inhalation (Vapor) Exposure Route:**

##### **Acute Toxicity Estimate (ATE)**

The following values are calculated based on chapter 3.1 of the GHS document



<b>ATEmix (dermal)</b>	2,868.70 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	1.70 mg/l
<b>ATEmix (inhalation-vapour)</b>	10.10 mg/l

**Unknown acute toxicity**

0 % of the mixture consists of ingredient(s) of unknown toxicity.

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

**Skin corrosion/irritation**

Causes severe burns.

Mixture No data available.

Substance Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Acetic acid, mercapto-, monoammonium salt	Existing human experience	Human	None reported	None reported	Skin irritant	HSDB
Thioglycolic acid	EpiDerm Skin Model (Directive 2000/33/EC, B.27)	synthetic bio-barrier membrane	990 mg	3 minutes	Corrosive to skin	ECHA
Benzenesulfonic acid, 4,4-[3-(2-pyridinyl)-1,2,4-triazine-5,6-diyl]bis-, monosodium salt	QSAR (Quantitative Structure Activity Relationship Models)	None reported	None reported	None reported	Not corrosive or irritating to skin	Toxtree (Ideaconult, Ltd)

**Serious eye damage/eye irritation**

Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

Mixture No data available.

Substance Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Benzenesulfonic acid, 4,4-[3-(2-pyridinyl)-1,2,4-triazine-5,6-diyl]bis-, monosodium salt	QSAR (Quantitative Structure Activity Relationship Models)	None reported	None reported	None reported	Not corrosive or irritating to eyes	Toxtree (Ideaconult, Ltd)

**Respiratory or skin sensitisation**

May cause sensitisation by skin contact.

Mixture No data available.

Substance Test data reported below.

**Respiratory Sensitization Exposure Route:**

Chemical name	Test method	Species	Results	Key literature references and sources for data
Acetic acid, mercapto-,	Based on human experience	None reported	Confirmed to be a respiratory sensitizer	HSDB

monoammonium salt				
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**STOT - single exposure**

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

Mixture No data available.

Substance No data available.

**STOT - repeated exposure**

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

Mixture No data available.

Substance No data available.

**Germ cell mutagenicity**

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

Mixture invitro **Data** No data available.Substance invitro **Data** Test data reported below.

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Thioglycolic acid	Mutation in microorganisms	<i>Salmonella typhimurium</i>	None reported	None reported	Negative	IUCLID

Mixture invivo **Data** No data available.Substance invivo **Data** No data available.**Carcinogenicity**

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

Mixture No data available.

Substance No data available.

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Benzenesulfonic acid, 4,4-[3-(2-pyridinyl)-1,2,4-triazine-5,6-diyl]bis-, monosodium salt	QSAR (Quantitative Structure Activity Relationship Models)	None reported	None reported	Not Carcinogenic	Toxtree (Ideaconconsult, Ltd)

**Reproductive toxicity**

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

Mixture No data available.

Substance No data available.

**Aspiration hazard**

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

**11.2 Information on other hazards**

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

#### 11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

#### 11.2.2. Other information

**Other adverse effects** No information available.

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecotoxicity** Harmful to aquatic life with long lasting effects.

**Unknown aquatic toxicity** Contains 0 % of components with unknown hazards to the aquatic environment.

### Mixture

**Acute aquatic toxicity:** No data available.

**Aquatic Chronic Toxicity:** No data available.

### Substance

**Acute aquatic toxicity:** Test data reported below.

Fish:

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Acetic acid, mercapto-, monoammonium salt	96 hours	None reported	LC <sub>50</sub>	8596 mg/L	ECOSARS
Thioglycolic acid	96 hours	<i>Pimephales promelas</i>	LC <sub>50</sub>	30 mg/L	IUCLID
Benzenesulfonic acid, 4,4-[3-(2-pyridinyl)-1,2,4-triazine-5,6-diyl] bis-, monosodium salt	96 hours	None reported	LC <sub>50</sub>	22900 mg/L	ECOSARS

Crustacea:

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Acetic acid, mercapto-, monoammonium salt	48 Hours	None reported	EC <sub>50</sub>	41 mg/L	ECOSARS
Benzenesulfonic acid, 4,4-[3-(2-pyridinyl)-1,2,4-triazine-5,6-diyl] bis-, monosodium salt	48 Hours	None reported	EC <sub>50</sub>	97900 mg/L	ECOSARS

Algae:

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Acetic acid,	96 hours	None reported	EC <sub>50</sub>	19 mg/L	ECOSARS

mercapto-, monoammonium salt					
Benzenesulfonic acid, 4,4-[3-(2-pyridinyl)-1 ,2,4-triazine-5,6-diyl] bis-, monosodium salt	96 hours	None reported	EC <sub>50</sub>	22400 mg/L	ECOSARS

**Aquatic Chronic Toxicity:** No data available.

## **12.2. Persistence and degradability**

**Mixture** No data available.

## **12.3. Bioaccumulative potential**

**Mixture:** No data available.

Partition coefficient No data available

## **12.4. Mobility in soil**

Soil Organic Carbon-Water Partition Coefficient No data available

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

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

Chemical name	PBT and vPvB assessment
Thioglycolic acid	The substance is not PBT / vPvB

## **12.6. Endocrine disrupting properties**

Endocrine Disruptor Information:

## **12.7. Other adverse effects**

No information available.

Ozone: Not applicable

Ozone depletion potential (ODP): No information available

# **Section 13: DISPOSAL CONSIDERATIONS**

## **13.1. Waste treatment methods**

### **Advice on Disposal**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

### **Waste disposal number of waste from residues/unused products**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste.

**Waste disposal number of used product**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste.

**Contaminated packaging** Dispose of contents/containers in accordance with local regulations.

**Other Information** Waste codes should be assigned by the user based on the application for which the product was used.

**Section 14: TRANSPORT INFORMATION****IMDG**

**14.1 UN number or ID number** UN2922  
**14.2 Proper shipping name** Not regulated  
**14.3 Transport hazard class(es)** 8  
    **Subsidiary hazard class** 6.1  
**14.4 Packing Group** II  
**14.5 Marine pollutant** Not applicable  
**14.6 Special precautions for user** 274  
    **EmS-No** F-A, S-B  
**14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code** Not applicable

**ADR**

**14.1 UN number or ID number** UN2922  
**14.2 Proper shipping name** Corrosive Liquid, Toxic, N.O.S.  
**14.3 Transport hazard class(es)** 8  
    **Labels** 8 + 6.1  
**14.4 Packing Group** II  
    **Description** UN2922, Corrosive liquid, toxic, n.o.s. (Thioglycolic acid), 8 (6.1), II, (E)  
**14.5 Environmental hazards** Not applicable  
**14.6 Special precautions for user** 274  
    **Classification code** CT1  
    **Tunnel restriction code** (E)

**IATA**

**14.1 UN number or ID number** UN2922  
**14.2 Proper shipping name** Not regulated  
**14.3 Transport hazard class(es)** 8  
    **Subsidiary hazard class** 6.1  
**14.4 Packing group** II  
**14.5 Environmental hazards** Not applicable  
**14.6 Special precautions for user** A3, A803  
    **ERG Code** 8P

**Additional information**

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies.

If the item is part of a reagent set or kit the classification would change to the following:

UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

If the item is not regulated, the Chemical Kit classification does not apply.

**Section 15: REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

**Authorisations and/or restrictions on use:**

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Thioglycolic acid - 68-11-1	75.	

**Persistent Organic Pollutants** Not applicable

**Dangerous substance category per Seveso Directive (2012/18/EU)**

• Non-controlled

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not applicable

**Germany**

**Water hazard class (WGK)** obviously hazardous to water (WGK 2)

**International Inventories**

<b>EINECS/ELINCS</b>	Complies
<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>ENCS</b>	Does not comply
<b>IECSC</b>	Complies
<b>KECL - Existing substances</b>	Does not comply
<b>PICCS</b>	Does not comply
<b>AICS</b>	Does not comply

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**15.2. Chemical safety assessment**

**Chemical Safety Report**

Chemical safety assessments for substances in this mixture were not carried out.

**Section 16: OTHER INFORMATION****Issue Date** 18-May-2005**Revision Date** 14-Feb-2023**Revision Note** New SDS, SDS sections updated, 3, 9, 11, 12.**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend**

**	Hazard Designation
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieure
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service Number
Ceiling	Maximum limit value
CLP	Classification, Labelling and Packaging of substances and mixtures [Regulation (EC) No. 1272/2008]
DNEL	Derived No Effect Level (DNEL)
EC	European Community
ECHA	ECHA (The European Chemicals Agency)
EC50	Effective Concentration to 50% of a test population
EEC	European Economic Community
EN	European Standard
IMDG	International Maritime Dangerous Goods (IMDG)
IATA	International Air Transport Association (IATA)
IATA-DGR	International Air Transport Association - Dangerous Goods Regulations
ICAO	International Civil Aviation Organization
ICAO-TI	International Civil Aviation Organization - Technical Instructions
IUCLID	IUCLID (The International Uniform Chemical Information Database)
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
LOAEL	Lowest observed adverse effect level
LOAEC	Lowest observed adverse effect concentration
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LOLI	LOLI (List of Lists - An International Chemical Regulatory Database)
MAK	Maximale Arbeitsplatz-Konzentration, a German expression corresponding to threshold limit value, which relates to safe daily exposure levels to chemical substances
NOAEL	NOAEL (No observed adverse effect level)
NOAEC	No observed adverse effect concentration
OSHA	OSHA (Occupational Safety and Health Administration of the US Department of Labour)
PEC	Predicted Effect Concentration
PNEC	Predicted No Effect Concentration (PNEC)
PBT	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals [Regulation (EC) No. 1907/2006]
RID	Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
RTECS	RTECS (Registry of Toxic Effects of Chemical Substances)
TWA	TWA (time-weighted average)
SKN*	Skin designation
SKN+	Skin sensitisation
STEL	STEL (Short Term Exposure Limit)
STOT	Specific Target Organ Toxicity
STOT RE	Specific target organ toxicity — repeated exposure

STOT SE	Specific target organ toxicity — single exposure
SVHC	Substances of Very High Concern
TLV	Threshold Limit Value
TRGS	Technical rules for hazardous substances, Germany
TSCA	Toxic Substances Control Act
UN	United Nations
vPvB	very persistent and very bioaccumulative
VOC	Volatile organic compounds
AwSV	Administrative regulation of water polluting substances, Germany

**Key literature references and sources for data**

See Section 11: TOXICOLOGICAL INFORMATION

See Section 12: ECOLOGICAL INFORMATION

**Classification procedure**

<b>Classification according to Regulation (EC) No. 1272/2008 [CLP]</b>	<b>Method Used</b>
Acute oral toxicity	On basis of test data
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration toxicity	Calculation method
Ozone	Calculation method

**Training Advice**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

**Restrictions on use**

For Laboratory Use Only.

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006****End of Safety Data Sheet**