SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 25-Mar-2024 **Revision Number** 4

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Description: **Hydrogen sulphide**
Cat No. : **R18700**
Index No 016-001-00-4
CAS No 7783-06-4
EC No 231-977-3

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

Recommended Use Laboratory chemicals.
Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

Company

Thermo Fisher (Kandel) GmbH
Erlenbachweg 2, 76870 Kandel, Germany
Tel: +49 (0) 721 84007 280
Fax: +49 (0) 721 84007 300

Swiss distributor - Fisher Scientific AG
Neuhofstrasse 11, CH 4153 Reinach
Tel: +41 (0) 56 618 41 11
https://www.fishersci.ch/ch/en/customer-help-support/forms/email-us.html

E-mail address begel.sdsdesk@thermofisher.com

1.4. Emergency telephone number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11
Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99
CHEMTREC Tel. No.**US:**001-800-424-9300 / **Europe:**001-703-527-3887

customers in Switzerland:
Tox Info Suisse Emergency Number: **145 (24hr)**
Tox Info Suisse: +41-44 251 51 51 (Emergency number from abroad)
Chemtrec (24h) Toll-Free: 0800 564 402
Chemtrec Local: +41-43 508 20 11 (Zurich)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards	
Flammable gases	Category 1 (H220)
Gases under pressure	Liquefied gas (H280)
Health hazards	
Acute Inhalation Toxicity - Gas	Category 2 (H330)
Environmental hazards	
Acute aquatic toxicity	Category 1 (H400)

Full text of Hazard Statements: see section 16

2.2. Label elements

Signal Word **Danger**

Hazard Statements

H220 - Extremely flammable gas
H280 - Contains gas under pressure; may explode if heated
H330 - Fatal if inhaled
H400 - Very toxic to aquatic life

Precautionary Statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P310 - Immediately call a POISON CENTER or doctor/physician
P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely
P381 - In case of leakage, eliminate all ignition sources
P410 + P403 - Protect from sunlight. Store in a well-ventilated place

2.3. Other hazards

In accordance with Annex XIII of the REACH Regulation, inorganic substances do not require assessment

This product does not contain any known or suspected endocrine disruptors

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Component	CAS No	EC No	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Hydrogen sulfide	7783-06-4	EEC No. 231-977-3	<=100	Flam. Gas 1 (H220)

				Press. Gas (H280) Acute Tox. 2 (H330) Aquatic Acute 1 (H400)

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Hydrogen sulfide	-	10	-

Full text of Hazard Statements: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Inhalation Remove to fresh air. If breathing is difficult, give oxygen. Immediate medical attention is required.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

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

No information available.

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

Notes to Physician Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.

Extinguishing media which must not be used for safety reasons
No information available.

5.2. Special hazards arising from the substance or mixture

Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products
None under normal use conditions.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional Ecological Information. Avoid release to the environment. Collect spillage.

6.3. Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Handle product only in closed system or provide appropriate exhaust ventilation. Use only in an area containing flame proof equipment.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK) (Germany)	Storage Class/LGK 2A
Switzerland - Storage of hazardous substances	Storage class - SC 2 https://www.kvu.ch/de/themen/stoffe-und-produkte https://www.kvu.ch/fr/themes/substances-et-produits https://www.kvu.ch/it/temi/sostanze-e-prodotti

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

List source(s): **EU** - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC **UK** - EH40/2005 Work Exposure Limits, Forth edition. Published 2020. **IRE -** 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority. **CH** - The Government of Switzerland has set a directive on limit values for working materials (Grenzwerte am Arbeitsplatz) which is based on the Swiss Federal Regulation "Verordnung über die Verhütung von Unfällen und Berufskrankheiten". This directive is administered, periodically revised and enforced by SUVA (Swiss National Accident Insurance Fund).

Component	European Union	The United Kingdom	France	Belgium	Spain
Hydrogen sulfide	TWA: 5 ppm (8h) TWA: 7 mg/m³ (8h) STEL: 10 ppm (15min) STEL: 14 mg/m³ (15min)	STEL: 10 ppm 15 min STEL: 14 mg/m³ 15 min TWA: 5 ppm 8 hr TWA: 7 mg/m³ 8 hr	TWA / VME: 5 ppm (8 heures). restrictive limit TWA / VME: 7 mg/m³ (8 heures). restrictive limit STEL / VLCT: 10 ppm. restrictive limit STEL / VLCT: 14 mg/m³. restrictive limit	TWA: 1.64 ppm 8 uren TWA: 2.3 mg/m³ 8 uren STEL: 4 ppm 15 minuten STEL: 5.61 mg/m³ 15 minuten	STEL / VLA-EC: 10 ppm (15 minutos). STEL / VLA-EC: 14 mg/m³ (15 minutos). TWA / VLA-ED: 5 ppm (8 horas) TWA / VLA-ED: 7 mg/m³ (8 horas)

Component	Italy	Germany	Portugal	The Netherlands	Finland
Hydrogen sulfide	TWA: 5 ppm 8 ore. Time Weighted Average TWA: 7 mg/m³ 8 ore. Time Weighted Average STEL: 10 ppm 15 minuti. Short-term STEL: 14 mg/m³ 15 minuti. Short-term	TWA: 5 ppm (8 Stunden). AGW - exposure factor 2 TWA: 7.1 mg/m³ (8 Stunden). AGW - exposure factor 2 TWA: 5 ppm (8 Stunden). MAK TWA: 7.1 mg/m³ (8 Stunden). MAK Höhepunkt: 10 ppm Höhepunkt: 14.2 mg/m³	STEL: 10 ppm 15 minutos STEL: 14 mg/m³ 15 minutos TWA: 5 ppm 8 horas TWA: 7 mg/m³ 8 horas	TWA: 2.3 mg/m³ 8 uren	TWA: 5 ppm 8 tunteina TWA: 7 mg/m³ 8 tunteina STEL: 10 ppm 15 minuutteina STEL: 14 mg/m³ 15 minuutteina

Component	Austria	Denmark	Switzerland	Poland	Norway
Hydrogen sulfide	MAK-KZGW: 5 ppm 15 Minuten MAK-KZGW: 7 mg/m³ 15 Minuten MAK-TMW: 5 ppm 8 Stunden MAK-TMW: 7 mg/m³ 8 Stunden Ceiling: 5 ppm Ceiling: 7 mg/m³	TWA: 5 ppm 8 timer TWA: 7 mg/m³ 8 timer STEL: 14 mg/m³ 15 minutter STEL: 10 ppm 15 minutter	STEL: 10 ppm 15 Minuten STEL: 14.2 mg/m³ 15 Minuten TWA: 5 ppm 8 Stunden TWA: 7.1 mg/m³ 8 Stunden	STEL: 14 mg/m³ 15 minutach TWA: 7 mg/m³ 8 godzinach	TWA: 5 ppm 8 timer TWA: 7 mg/m³ 8 timer Ceiling: 10 ppm Ceiling: 14 mg/m³

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Hydrogen sulfide	TWA: 5 ppm TWA: 7 mg/m³ STEL : 10 ppm STEL : 14 mg/m³	TWA-GVI: 5 ppm 8 satima. TWA-GVI: 7 mg/m³ 8 satima. STEL-KGVI: 10 ppm 15 minutama. STEL-KGVI: 14 mg/m³ 15 minutama.	TWA: 5 ppm 8 hr. TWA: 7 mg/m³ 8 hr. STEL: 14 mg/m³ 15 min STEL: 10 ppm 15 min	STEL: 14 mg/m³ STEL: 10 ppm TWA: 7 mg/m³ TWA: 5 ppm	TWA: 7 mg/m³ 8 hodinách. Ceiling: 14 mg/m³

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Hydrogen sulfide	TWA: 5 ppm 8 tundides. TWA: 7 mg/m³ 8 tundides. STEL: 10 ppm 15 minutites. STEL: 14 mg/m³ 15 minutites.	TWA: 7 mg/m³ 8 hr TWA: 5 ppm 8 hr STEL: 14 mg/m³ 15 min STEL: 10 ppm 15 min	STEL: 10 ppm STEL: 14 mg/m³ TWA: 5 ppm TWA: 7 mg/m³	STEL: 14 mg/m³ 15 percekben. CK TWA: 7 mg/m³ 8 órában. AK	STEL: 15 ppm STEL: 20 mg/m³ TWA: 5 ppm 8 klukkustundum. TWA: 7 mg/m³ 8 klukkustundum.

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Hydrogen sulfide	STEL: 10 ppm STEL: 14 mg/m³ TWA: 5 ppm	Ceiling: 15 ppm Ceiling: 20 mg/m³ TWA: 5 ppm IPRD	TWA: 7 mg/m³ 8 Stunden TWA: 5 ppm 8 Stunden	TWA: 7 mg/m³ TWA: 5 ppm STEL: 14 mg/m³ 15	TWA: 5 ppm 8 ore TWA: 7 mg/m³ 8 ore STEL: 10 ppm 15

	TWA: 7 mg/m³	TWA: 7 mg/m³ IPRD STEL: 10 ppm STEL: 14 mg/m³	STEL: 14 mg/m³ 15 Minuten STEL: 10 ppm 15 Minuten	minuti STEL: 10 ppm 15 minuti	minute STEL: 14 mg/m³ 15 minute

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Hydrogen sulfide	MAC: 10 mg/m³	Ceiling: 14 mg/m³ TWA: 5 ppm TWA: 7 mg/m³	TWA: 5 ppm 8 urah TWA: 7 mg/m³ 8 urah STEL: 10 ppm 15 minutah STEL: 14 mg/m³ 15 minutah	Binding STEL: 10 ppm 15 minuter Binding STEL: 14 mg/m³ 15 minuter TLV: 5 ppm 8 timmar. NGV TLV: 7 mg/m³ 8 timmar. NGV	TWA: 5 ppm 8 saat TWA: 7 mg/m³ 8 saat STEL: 10 ppm 15 dakika STEL: 14 mg/m³ 15 dakika

Biological limit values
This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Monitoring methods
BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
MDHS70 General methods for sampling airborne gases and vapours
MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography
MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)
See table for values

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Hydrogen sulfide 7783-06-4 (<=100)	DNEL = 14mg/m³	DNEL = 14mg/m³	DNEL = 7mg/m³	DNEL = 7mg/m³

Predicted No Effect Concentration (PNEC)
See values below.

Component	Fresh water	Fresh water sediment	Water Intermittent	Microorganisms in sewage treatment	Soil (Agriculture)
Hydrogen sulfide 7783-06-4 (<=100)	PNEC = 0.05µg/L		PNEC = 0.5µg/L	PNEC = 1.33mg/L	

Component	Marine water	Marine water sediment	Marine water Intermittent	Food chain	Air
Hydrogen sulfide 7783-06-4 (<=100)	PNEC = 14.9µg/L				

8.2. Exposure controls

Engineering Measures
Ensure adequate ventilation, especially in confined areas.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Eye Protection Wear safety glasses with side shields (or goggles) (European standard - EN 166)

Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Natural rubber Nitrile rubber Neoprene PVC	See manufacturers recommendations	-	EN 374	(minimum requirement)

Skin and body protection Long sleeved clothing.

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

Respiratory Protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

Large scale/emergency use Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
Recommended Filter type: Particulates filter conforming to EN 143 Inorganic gases and vapours filter Type B Grey

Small scale/Laboratory use Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Recommended half mask:- Particle filtering: EN149:2001
When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State	Gas	
Appearance	Colorless	
Odor	Unpleasant	
Odor Threshold	No data available	
Melting Point/Range	-86 °C / -122.8 °F	
Softening Point	No data available	
Boiling Point/Range	-60 °C / -76 °F	
Flammability (liquid)	No data available	
Flammability (solid,gas)	No information available	
Explosion Limits	**Lower** 4.3 Vol % (60 g/m³) **Upper** 45.5 Vol % (650 g/m³)	
Flash Point	100 °C / 212 °F	**Method -** No information available
Autoignition Temperature	270 °C / 518 °F	
Decomposition Temperature	No data available	
pH	No information available	
Viscosity	No data available	

Water Solubility	Insoluble in water	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	**log Pow**	
Hydrogen sulfide	0.45	
Vapor Pressure	17.7 hPa @ 20 °C	
Density / Specific Gravity	0.00099 g/cm3	@ 20 °C
Bulk Density	No data available	
Vapor Density	No data available	(Air = 1.0)
Particle characteristics	No data available	

9.2. Other information

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

None known, based on information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous Polymerization No information available.
Hazardous Reactions No information available.

10.4. Conditions to avoid

Incompatible products. Excess heat.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

None under normal use conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

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

Product Information

(a) acute toxicity;

Oral No data available
Dermal No data available
Inhalation Category 2

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrogen sulfide	-	-	712 ppm/1 hr (Rat)

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;

Respiratory	No data available
Skin	No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; No data available

Symptoms / effects,both acute and delayed No information available.

11.2. Information on other hazards

Endocrine Disrupting Properties Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects Very toxic to aquatic organisms. The product contains following substances which are hazardous for the environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Hydrogen sulfide	LC50: = 0.016 mg/L, 96h flow-through (Pimephales promelas) LC50: = 0.0448 mg/L, 96h flow-through (Lepomis macrochirus)		

Component	Microtox	M-Factor
Hydrogen sulfide		10

12.2. Persistence and degradability

Persistence	Persistence is unlikely, based on information available.
Degradability	Not relevant for inorganic substances.
Degradation in sewage treatment plant	Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

12.3. Bioaccumulative potential Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Hydrogen sulfide	0.45	No data available

12.4. Mobility in soil

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces Will likely be mobile in the environment due to its volatility. Disperses rapidly in air

12.5. Results of PBT and vPvB assessment

In accordance with Annex XIII of the REACH Regulation, inorganic substances do not require assessment.

12.6. Endocrine disrupting properties

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects

Persistent Organic Pollutant This product does not contain any known or suspected substance

Ozone Depletion Potential This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from Residues/Unused Products Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

European Waste Catalogue (EWC) According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

Other Information Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be landfilled or incinerated, when in compliance with local regulations. Do not let this chemical enter the environment. Do not empty into drains.

Switzerland - Waste Ordinance Disposal should be in accordance with applicable regional, national and local laws and regulations. Ordinance on the Avoidance and the Disposal of Waste (Waste Ordinance, ADWO) SR 814.600
https://www.fedlex.admin.ch/eli/cc/2015/891/en

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

14.1. UN number UN1053
14.2. UN proper shipping name HYDROGEN SULPHIDE
14.3. Transport hazard class(es) 2.3
Subsidiary Hazard Class 2.1
14.4. Packing group

ADR

14.1. UN number UN1053

14.2. UN proper shipping name	HYDROGEN SULPHIDE
14.3. Transport hazard class(es)	2.3
Subsidiary Hazard Class	2.1
14.4. Packing group	

IATA FORBIDDEN FOR IATA TRANSPORT

14.1. UN number	UN1053
14.2. UN proper shipping name	HYDROGEN SULPHIDE FORBIDDEN FOR IATA TRANSPORT
14.3. Transport hazard class(es)	2.3
Subsidiary Hazard Class	2.1
14.4. Packing group	

14.5. Environmental hazards Dangerous for the environment
Product is a marine pollutant according to the criteria set by IMDG/IMO

14.6. Special precautions for user No special precautions required.

14.7. Maritime transport in bulk according to IMO instruments Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories
Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Hydrogen sulfide	7783-06-4	231-977-3	-	-	X	X	KE-20209	X	X

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Hydrogen sulfide	7783-06-4	X	ACTIVE	X	-	X	X	X

Legend: X - Listed '-' - Not Listed **KECL** - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

Authorisation/Restrictions according to EU REACH Not applicable

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Hydrogen sulfide	7783-06-4	-	-	-

Seveso III Directive (2012/18/EC)

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Hydrogen sulfide	7783-06-4	5 tonne	20 tonne

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals
Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?
Not applicable

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 2000/39/EC establishing a first list of indicative occupational exposure limit values

National Regulations

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

WGK Classification See table for values

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class
Hydrogen sulfide	WGK2	

Swiss Regulations
Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2).
Take note on Article 13 Maternity Ordinance (SR 822.111.52) with regards expectant and nursing mothers.

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3
H220 - Extremely flammable gas
H280 - Contains gas under pressure; may explode if heated
H330 - Fatal if inhaled
H400 - Very toxic to aquatic life

Legend

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
IECSC - Chinese Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
ENCS - Japanese Existing and New Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit
ACGIH - American Conference of Governmental Industrial Hygienists
DNEL - Derived No Effect Level
RPE - Respiratory Protective Equipment
LC50 - Lethal Concentration 50%
NOEC - No Observed Effect Concentration
PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average
IARC - International Agency for Research on Cancer
Predicted No Effect Concentration (PNEC)
LD50 - Lethal Dose 50%
EC50 - Effective Concentration 50%
POW - Partition coefficient Octanol:Water
vPvB - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road
IMO/IMDG - International Maritime Organization/International Maritime

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

Dangerous Goods Code

MARPOL - International Convention for the Prevention of Pollution from Ships

OECD - Organisation for Economic Co-operation and Development

ATE - Acute Toxicity Estimate

BCF - Bioconcentration factor

VOC - (volatile organic compound)

Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

First aid for chemical exposure, including the use of eye wash and safety showers.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts.

Chemical incident response training.

Prepared By	Health, Safety and Environmental Department
Revision Date	25-Mar-2024
Revision Summary	New emergency telephone response service provider.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 .

For Switzerland - Compiled in accordance with the technical provisions referred to in Annex 2, Number 3, ChemO (SR 813.11 - Ordinance on Protection against Dangerous Substances and Preparations).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet