SAFETY DATA SHEET
(SDS)

This safety data sheet complies with the requirements of:
, Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Revision Date 29-Jul-2024 **WAI2 - EGHS - EUROPEAN** **Revision Number** 4

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

1.1. Product Identifier

Product Name Silica Reagent 1

Product No 8030REX-1
Unique Formula Identifier (UFI) Not applicable

Kit Reference(s) 8030cX Silica Analyzer Reagent Kit

REACH registration number Not applicable

Pure substance/mixture Mixture

Contains Sulfuric Acid

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

Recommended Use Use as laboratory reagent

Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

Manufacturer, Importer, Supplier
Thermo Fisher Scientific©
Water and Lab Products
22 Alpha Road
Chelmsford, MA 01824, USA
1-978-232-6000

E-mail address wlp.techsupport@thermofisher.com

Made in USA

1.4. Emergency telephone number

24 Hour Emergency Phone Number
CHEMTREC®
Within USA and Canada: 1-800-424-9300
Outside USA and Canada: 1-703-527-3887
(collect calls accepted)

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification - Mixture

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

Skin Corrosion/Irritation	Category 1 Sub-category A - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)

2.2. Label elements

Contains Sulfuric Acid

Signal Word
Danger

Hazard Statements
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage

Precautionary Statements
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P264 - Wash face, hands and any exposed skin thoroughly after handling
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
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
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P363 - Wash contaminated clothing before reuse
P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other hazards

General Hazards This product does not contain any known or suspected endocrine disruptors

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC No	CAS No	Weight %	GHS Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567	REACH Reg. No
Water	EEC No. 231-791-2	7732-18-5	50 - 60%	Not classified	No information available
Sodium Bisulfate Monohydrate	-	10034-88-5	20 - 30%		No information available
Sulfuric Acid	EEC No. 231-639-5	7664-93-9	10 - 20%	Skin Corr. 1A (H314)	No information available
Molybdic Acid	EEC No. 231-970-5	7782-91-4	0 - 10%	Not classified	No information available

Component	CAS No	Specific concentration limits (SCL's)	M-Factor	Component notes
Water	7732-18-5	-	-	-
Sodium Bisulfate Monohydrate	10034-88-5	-	-	-
Sulfuric Acid	7664-93-9	Eye Irrit. 2 (H319) :: 5%<=C<15% Skin Corr. 1A (H314) :: C>=15% Skin Irrit. 2 (H315) :: 5%<=C<15%	-	-
Molybdic Acid	7782-91-4	-	-	-

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.

Inhalation If not breathing, give artificial respiration. Remove from exposure, lie down. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately.

Ingestion Do NOT induce vomiting. Clean mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately.

Self-Protection of the First Aider Use personal protective equipment as required. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

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

Most important symptoms and effects Causes burns by all exposure routes

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
CO_2, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media
No information available

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.

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

Personal Precautions Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2. Environmental precautions

Environmental Precautions Should not be released into the environment. See Section 12 for additional Ecological Information. Vapors may accumulate to form explosive concentrations.

6.3. Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Reference to Other Sections
Refer to protective measures listed in Sections 7 and 8
See Section 8 for information on appropriate personal protective equipment
See Section 12 for additional Ecological Information
See Section 13 for additional waste treatment information

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling
Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions
Corrosives area. Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific Use(s)
Use as laboratory 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
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, Fourth edition. Published 2020. **IRE -** 2021 Code of Practice for the Chemical Agents Regulations, Schedule 1. Published by the Health and Safety Authority

Component	European Union	The United Kingdom	France	Belgium	Spain
Sulfuric Acid	TWA: 0.05 mg/m³ (8h)	STEL: 0.15 mg/m³ 15 min TWA: 0.05 mg/m³ 8 hr	TWA / VME: 0.05 mg/m³ (8 heures). indicative limit STEL / VLCT: 3 mg/m³. indicative limit: this value is not set by regulation and comes from a circular published	TWA: 0.2 mg/m³ 8 uren	TWA / VLA-ED: 0.05 mg/m³ (8 horas)

			by the Ministry of Labor.		
Molybdic Acid		STEL: 10 mg/m³ 15 min TWA: 5 mg/m³ 8 hr	TWA / VME: 5 mg/m³ (8 heures). STEL / VLCT: 10 mg/m³.		TWA / VLA-ED: 0.5 mg/m³ (8 horas)

Component	Italy	Germany	Portugal	The Netherlands	Finland
Sulfuric Acid	TWA: 0.05 mg/m³ 8 ore. Time Weighted Average when choosing a suitable method for monitoring exposure should take into account potential constraints and interactions that may occur in the presence of other sulfur compounds, respirable fraction	TWA: 0.1 mg/m³ (8 Stunden). AGW - exposure factor 1 TWA: 0.1 mg/m³ (8 Stunden). MAK Höhepunkt: 0.1 mg/m³	TWA: 0.2 mg/m³ 8 horas	TWA: 0.05 mg/m³ 8 uren	TWA: 0.05 mg/m³ 8 tunteina STEL: 0.1 mg/m³ 15 minuutteina
Molybdic Acid			TWA: 0.5 mg/m³ 8 horas		

Component	Austria	Denmark	Switzerland	Poland	Norway
Sulfuric Acid	MAK-KZGW: 0.2 mg/m³ 15 Minuten MAK-TMW: 0.1 mg/m³ 8 Stunden	TWA: 0.05 mg/m³ 8 timer STEL: 0.1 mg/m³ 15 minutter	STEL: 0.2 mg/m³ 15 Minuten TWA: 0.1 mg/m³ 8 Stunden	TWA: 0.05 mg/m³ 8 godzinach	TWA: 0.1 mg/m³ 8 timer STEL: 0.3 mg/m³ 15 minutter. value calculated thoracic fraction, aerosol
Molybdic Acid	MAK-KZGW: 10 mg/m³ 15 Minuten MAK-TMW: 5 mg/m³ 8 Stunden		TWA: 5 mg/m³ 8 Stunden		TWA: 5 mg/m³ 8 timer

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Sulfuric Acid	TWA: 0.05 mg/m³	TWA-GVI: 0.05 mg/m³ 8 satima. when selecting the appropriate exposure monitoring method the potential limitations and disturbances that may occur in the presence of other sulfur compounds should be taken into account fog, thoracic fraction	TWA: 0.05 ppm 8 hr. STEL: 0.15 ppm 15 min	TWA: 0.05 mg/m³	TWA: 1 mg/m³ 8 hodinách. SO3 TWA: 0.05 mg/m³ 8 hodinách. concentrated H2SO4 mist Ceiling: 2 mg/m³ SO3

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Sulfuric Acid	TWA: 0.05 mg/m³ 8 tundides. mist;when choosing an exposure monitoring method, possible limitations and disturbances that may occur in the presence of sulfur compounds must be taken into account particles that reach the upper respiratory tract	TWA: 0.05 mg/m³ 8 hr when selecting an appropriate exposure monitoring method, account should be taken of potential limitations and interferences that may arise in the presence of other sulphur compounds thoracic fraction	TWA: 0.05 mg/m³	TWA: 0.05 mg/m³ 8 órában. AK	TWA: 1 mg/m³ 8 klukkustundum. Ceiling: 2 mg/m³

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Sulfuric Acid	TWA: 0.05 mg/m³	TWA: 0.05 mg/m³ vapor IPRD STEL: 3 mg/m³	TWA: 0.05 mg/m³ 8 Stunden	TWA: 0.05 mg/m³	TWA: 0.05 mg/m³ 8 ore

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Sulfuric Acid	Skin notation MAC: 1 mg/m³	TWA: 0.05 mg/m³	TWA: 0.05 mg/m³ 8 urah inhalable fraction, fog STEL: 0.05 mg/m³ 15	Indicative STEL: 0.2 mg/m³ 15 minuter TLV: 0.1 mg/m³ 8 timmar. NGV	TWA: 0.05 mg/m³ 8 saat

			minutah inhalable fraction, fog		

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.

Derived No Effect Level (DNEL)
No information available

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Sulfuric Acid 7664-93-9 (10 - 20%)	DNEL = 0.1mg/m³		DNEL = 0.05mg/m³	
Molybdic Acid 7782-91-4 (0 - 10%)				DNEL = 11.17mg/m³

Predicted No Effect Concentration (PNEC)
No information available.

Component	Fresh water	Fresh water sediment	Water Intermittent	Microorganisms in sewage treatment	Soil (Agriculture)
Sulfuric Acid 7664-93-9 (10 - 20%)	PNEC = 0.0025mg/L	PNEC = 0.002mg/kg sediment dw		PNEC = 8.8mg/L	
Molybdic Acid 7782-91-4 (0 - 10%)	PNEC = 12.7mg/L	PNEC = 22600mg/kg sediment dw	PNEC = 12.7mg/L	PNEC = 21.7mg/L	PNEC = 39mg/kg soil dw

Component	Marine water	Marine water sediment	Marine water intermittent	Food chain	Air
Sulfuric Acid 7664-93-9 (10 - 20%)	PNEC = 0.00025mg/L	PNEC = 0.002mg/kg sediment dw			
Molybdic Acid 7782-91-4 (0 - 10%)	PNEC = 1.91mg/L	PNEC = 1984mg/kg sediment dw			

8.2. Exposure controls

Engineering Measures Ensure that eyewash stations and safety showers are close to the workstation location

Personal protective equipment

Eye/face Protection Wear chemical splash goggles and face shield. If splashes are likely to occur:. Goggles.

Skin and body protection Wear protective gloves/protective clothing.

Respiratory Protection No protective equipment is needed under normal use conditions. In case of inadequate

ventilation wear respiratory protection.

Environmental exposure controls No information available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Clear
Odor	None
Odor Threshold	No information available
pH	-0.28
PH Range	-0.78 - 0.22

Property	**Values**	**Remarks • Method**
Melting point/freezing point	No information available	
Boiling Point/Range	100 °C / 212 °F	
Flash Point (High in °C)	No information available	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor Density	No information available	
Specific Gravity	No information available	
Water Solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition Temperature	-	
Decomposition Temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive Properties	No information available	
Oxidizing Properties	No information available	

9.2. Other information

Softening Point	No information available
Molecular Weight	No information available
VOC Content(%)	No information available
Density	No Information available
Bulk Density	No information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
No information available

10.2. Chemical stability
Stable under normal conditions

Explosion Data

Sensitivity to Mechanical Impact	None
Sensitivity to Static Discharge	None

10.3. Possibility of hazardous reactions
None under normal processing

10.4. Conditions to avoid

Extremes of temperature and direct sunlight

10.5. Incompatible materials
No information available

10.6. Hazardous decomposition products
Thermal decomposition can lead to release of irritating gases and vapors

SECTION 11: TOXICOLOGICAL INFORMATION

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

Product Information

Acute Toxicity
Unknown Acute Toxicity 35.8 % of the mixture consists of ingredient(s) of unknown toxicity.
The following values are calculated based on chapter 3.1 of the GHS document
ATEmix (oral) 10,253.00 mg/kg
ATEmix (inhalation-dust/mist) 1.80 mg/L

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	LD50 > 90 mL/kg (Rat)		
Sulfuric Acid	LD50 = 2140 mg/kg (Rat)		LC50 = 0.375 mg/L (Rat) 4 h
Molybdic Acid			LC50 > 5.05 mg/L (Rat) 4 h

Skin Corrosion/Irritation Causes severe burns

Serious eye damage/eye irritation Risk of serious damage to eyes

Sensitization No information available

Mutagenic Effects No information available

Carcinogenic effects No information available

Reproductive Effects No information available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Symptoms Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

Aspiration hazard 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 .

35.8% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Component	Freshwater Algae	Freshwater Fish	Water Flea
Sulfuric Acid	-	LC50: > 500 mg/L, 96h static (Brachydanio rerio)	-

12.2. Persistence and degradability No information available

12.3. Bioaccumulative potential No information available

12.4. Mobility in soil
No information available

12.5. Results of PBT and vPvB assessment
No information available

12.6. Endocrine disrupting properties
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.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not flush to sewer. Large amounts will affect pH and harm aquatic organisms.

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

14.1 UN-No	UN2796
14.2 Proper Shipping Name	SULPHURIC ACID
14.3 Hazard Class	8
14.4 Packing Group	II
Description	UN2796, SULPHURIC ACID, 8, II
14.5 Marine Pollutant	Not Applicable
14.6 Special Provisions	None
EmS No.	F-A, S-B
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

ADR

14.1. UN number UN2796
14.2. UN proper shipping name SULPHURIC ACID
14.3. Transport hazard class(es) 8
14.4. Packing group II

ICAO

14.1 UN-No UN2796
14.2 Proper Shipping Name SULPHURIC ACID
14.3 Hazard Class 8
14.4 Packing Group II
Description UN2796, SULPHURIC ACID, 8, II
14.5 Environmental hazard Not Applicable
14.6 Special Provisions None

IATA

14.1 UN-No UN2796
14.2 Proper Shipping Name SULPHURIC ACID
14.3 Hazard Class 8
14.4 Packing Group II
Description UN2796, SULPHURIC ACID, 8, II
14.5 Environmental hazard Not Applicable
14.6 Special Provisions None
ERG Code 8L

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), U.S.A. (TSCA).

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Water	7732-18-5	231-791-2	-	-	X	X	KE-35400	X	-
Sodium Bisulfate Monohydrate	10034-88-5	-	-	-	X	X	-	-	-
Sulfuric Acid	7664-93-9	231-639-5	-	-	X	X	KE-32570	X	X
Molybdic Acid	7782-91-4	231-970-5	-	-	X	X	KE-25464	X	X

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Water	7732-18-5	X	ACTIVE	X	-	X	X	X
Sodium Bisulfate Monohydrate	10034-88-5	-	-	-	-	X	X	X
Sulfuric Acid	7664-93-9	X	ACTIVE	X	-	X	X	X
Molybdic Acid	7782-91-4	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)

European Union

Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous	REACH Regulation (EC 1907/2006) article 59 - Candidate List of

			Substances	Substances of Very High Concern (SVHC)
Water	7732-18-5	-	-	-
Sodium Bisulfate Monohydrate	10034-88-5	-	-	-
Sulfuric Acid	7664-93-9	-	Use restricted. See entry 75. (see link for restriction details)	-
Molybdic Acid	7782-91-4	-	-	-

https://echa.europa.eu/substances-restricted-under-reach

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

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

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

National Regulations

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

WGK Classification Water endangering class = 1 (self classification)

Component	Germany - Water Classification (AwSV)
Sulfuric Acid 7664-93-9 (10 - 20%)	WGK1

Component	Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81)	Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC)	Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure
Sulfuric Acid 7664-93-9 (10 - 20%)	Prohibited and Restricted Substances		

15.2. Chemical safety assessment

A Chemical safety assessment according to regulation (EC) No. 1907/2006 is not required

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage

Key or legend to abbreviations and acronyms used in the safety data sheet

CAS - Chemical Abstracts Service

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU 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

PICCS - Philippines Inventory of Chemicals and Chemical Substances
IECSC - Chinese Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
ENCS - Japanese Existing and New Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit
ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value
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 Dangerous Goods Code
OECD - Organisation for Economic Co-operation and Development
BCF - Bioconcentration factor
TWA TWA (time-weighted average)
Ceiling Maximum limit value
ICAO/IATA - International Civil Aviation Organization/International Air Transport Association
MARPOL - International Convention for the Prevention of Pollution from Ships
ATE - Acute Toxicity Estimate
VOC - (Volatile Organic Compound)
STEL STEL (Short Term Exposure Limit)

Key literature references and sources for data
https://echa.europa.eu/information-on-chemicals
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Full text of H-Statements referred to under section 3
H314 - Causes severe skin burns and eye damage
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation

Prepared By	Regulatory Affairs
Prepared For	Thermo Fisher Scientific Inc.
Issue Date	No information available
Revision Date	29-Jul-2024
Reason for revision	SDS sections updated.

This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended. .

Disclaimer
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End of Safety Data Sheet