SAFETY DATA SHEET

Revision Date 19-Oct-2026 **Version** 4

Section 1: Identification

Product identifier

Product Name Dissolved Oxygen 2 Reagent

Product Code(s) 98299

Safety data sheet number M00028

Other means of identification

Substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory reagent. Determination of dissolved oxygen

Uses advised against Consumer use

Manufacturer or supplier details

Supplier Address HACH WATER QUALITY (Singapore) Pte Ltd, 401 commonwealth drive, #04-04, Singapore 149598, +65 6265-9381 ext. 5021

US Supplier Address Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

For further information, please contact

Emergency telephone number

800 101 2201 (Toll Free) or +65 3158 1349

Section 2: Hazard identification

Classification of the substance or mixture

Classification

Corrosive to metals	**Category 1 - (H290)**
Acute toxicity - Oral	Category 3 - (H301)
Acute toxicity - Dermal	Category 3 - (H311)
Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)
Skin corrosion/irritation	Category 1 - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)
Reproductive toxicity	Category 2 - (H361)
Specific target organ toxicity (repeated exposure)	Category 1 - (H372)
Chronic aquatic toxicity	Category 3 - (H412)

Label elements



Signal word
Danger

Hazard statements
H290 - May be corrosive to metals.
H301 - Toxic if swallowed.
H311 - Toxic in contact with skin.
H314 - Causes severe skin burns and eye damage.
H332 - Harmful if inhaled.
H361 - Suspected of damaging fertility or the unborn child.
H372 - Causes damage to organs through prolonged or repeated exposure.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements
P270 - Do not eat, drink or smoke when using this product.
P501 - Dispose of contents/ container to an approved waste disposal plant.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap.
P405 - Store locked up.
P271 - Use only outdoors or in a well-ventilated area.
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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.
P363 - Wash contaminated clothing before reuse.
P201 - Obtain special instructions before use.
P308 + P313 - IF exposed or concerned: Get medical advice/attention.
P273 - Avoid release to the environment.
P234 - Keep only in original packaging.
P390 - Absorb spillage to prevent material damage.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

Other Hazards Known

Other hazards Harmful to aquatic life.

Section 3: Composition/information on ingredients

Substance

Not applicable

Mixture

The product contains no substances which at their given concentration, are considered to be hazardous to health

Chemical Family Mixture.

Chemical nature aqueous solution.

Chemical name	CAS No.	Weight-%
Lithium hydroxide monohydrate	1310-66-3	60 - 70%
Potassium iodide	7681-11-0	30 - 40%
Sodium azide	26628-22-8	1 - 5%

Section 4: First-aid measures

Description of necessary first aid measures

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

Inhalation If breathing has stopped, give artificial respiration. Get medical attention immediately. 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. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical attention.

Skin contact Get immediate medical attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get immediate medical attention.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing dust/fume/gas/mist/vapors/spray. 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.

Most important symptoms/effects, acute and delayed

Symptoms Burning sensation. Redness. May cause blindness. Coughing and/ or wheezing. May cause redness and tearing of the eyes. Difficulty in breathing.

Effects of Exposure May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility. Causes damage to organs through prolonged or repeated exposure.

Indication of immediate medical attention and special treatment needed, if necessary

Note to physicians Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

Section 5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical

Specific hazards arising from the chemical The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous combustion products This material will not burn.

Special protective equipment and precautions for fire-fighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protective equipment.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Attention! Corrosive material. Keep people away from and upwind of spill/leak. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid generation of dust.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions 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. Prevent entry into waterways, sewers, basements or confined areas.

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 Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash before reuse. 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. Remove contaminated clothing and shoes. Use personal protective equipment.

General hygiene considerations Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid

contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Avoid breathing dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

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

Section 8: Exposure controls/personal protection

Control Parameters

Occupational exposure limits

Chemical name	Singapore	ACGIH TLV
Potassium iodide 7681-11-0		TWA: 0.01 mg/m³ I inhalable particulate matter pSk
Sodium azide 26628-22-8	STEL: 0.29 mg/m³ STEL: 0.11 ppm	Ceiling: 0.29 mg/m³ Sodium azide Ceiling: 0.11 ppm Hydrazoic acid vapor

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

Appropriate engineering 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 protection

Eye/face protection Face protection shield. Tight sealing safety 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 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374-1:2016. Barrier creams may help to protect the exposed areas of skin.

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

Skin and body protection Wear suitable protective clothing. Chemical resistant apron.

Respiratory protection Wear breathing apparatus if exposed to vapors/dusts/aerosols. Ensure adequate ventilation. Use appropriate respiratory protection.

General hygiene considerations Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves,

including the inside, before re-use. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Avoid breathing dust/fume/gas/mist/vapors/spray.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Solid		
Appearance	Crystalline	**Color**	white
Odor	Slight	**Odor threshold**	No data available

Property	Values	Remarks • Method
Molecular weight	No data available	
pH	12.6	5% @ 20°C
Melting point / freezing point	110 °C / 230 °F	
Initial boiling point and boiling range	No data available	
Evaporation rate	Not applicable	
Vapor pressure	Not applicable	
Relative vapor density	No data available	
Relative density	1.94	
Partition coefficient	log K_{ow} ~ 0	
Soil Organic Carbon-Water Partition Coefficient	log K_{oc} ~ 0	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Dynamic viscosity	No data available	
Kinematic viscosity	Not applicable	

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

Other information

Corrosive to metals

Classified as corrosive to metal according to GHS criteria

Steel Corrosion Rate	Not applicable No data available
Aluminum Corrosion Rate	6.3 mm/yr / 0.25 in/yr

Volatile Organic Compounds (VOC) Content
Not applicable

Chemical name	CAS No.	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Lithium hydroxide monohydrate	1310-66-3	No data available	-
Potassium iodide	7681-11-0	Not applicable	-
Sodium azide	26628-22-8	No data available	-

Explosive properties

Upper explosion limit No data available
Lower explosion limit No data available

Flammable properties

Flash point Not applicable

Flammability Limit in Air
Upper flammability limit: No data available
Lower flammability limit: No data available

Oxidizing properties No data available.

Bulk density No data available

Section 10: Stability and reactivity

Reactivity

Reactivity Corrosive to metal.

Chemical stability

Stability Stable under normal conditions.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Hazardous polymerization None under normal processing.

Conditions to avoid Exposure to air or moisture over prolonged periods. Excessive heat.

Incompatible materials Oxidizing agent. Acids. Bases.

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

Section 11: Toxicological information

Toxicological information

Information on likely routes of exposure

Product Information

Inhalation	Corrosive by inhalation. Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. Harmful by inhalation.
Eye contact	Causes serious eye damage. Corrosive to the eyes and may cause severe damage including blindness.
Skin contact	Corrosive. Causes burns. Toxic in contact with skin. Causes severe burns. Avoid contact with skin and clothing.
Ingestion	Causes burns. Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Redness. Burning. May cause blindness. Coughing and/ or wheezing.

Acute toxicity
Toxic if swallowed
Toxic in contact with skin
Harmful if inhaled
Mixture
Test data reported below.
Oral Exposure Route

Endpoint type	Toxicological effects	Key literature references and sources for data
Rat LD_{50}	**Behavioral** Flaccid muscle tone Lethargy **Endocrine** Abnormalities of the spleen **Eye** Ptosis **Gastrointestinal Liver** Abnormalities of the liver **Lungs, Thorax, or Respiration** Abnormalities of the lungs Chromorhinorrhea Excess fluid in the peritoneal cavity Red or brown staining of the nose/mouth area **Nutritional and Gross Metabolic** Emaciation **Reproductive** Soiling and wetness of the anogenital area **Skin and Appendages** Piloerection	Outside testing

Ingredient Acute Toxicity Data

Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Lithium hydroxide monohydrate (60 - 70%) CAS#: 1310-66-3	Rat LD_{50}	120 mg/kg	None reported	None reported	LOLI
Potassium iodide (30 - 40%) CAS#: 7681-11-0	Rat LD_{50}	2484 mg/kg	None reported	None reported	ECHA
Sodium azide (1 - 5%) CAS#: 26628-22-8	Rat LD_{50}	27 mg/kg	None reported	None reported	LOLI

Dermal Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sodium azide (1 - 5%) CAS#: 26628-22-8	Rabbit LD_{50}	20 mg/kg	None reported	None reported	RTECS

Inhalation (Dust/Mist) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Lithium hydroxide monohydrate (60 - 70%) CAS#: 1310-66-3	Rat LC_{50}	0.96 mg/L	4 hours	None reported	LOLI
Sodium azide (1 - 5%) CAS#: 26628-22-8	Rat LC_{50}	0.037 mg/L	None reported	**Eye** Other effects **Behavioral** Convulsions or effect on seizure threshold **Lungs, Thorax, or Respiration** Structural or functional change in trachea or bronchi	LOLI

Inhalation (Vapor) Exposure Route

Toxic if swallowed. Toxic in contact with skin. Harmful by inhalation.

Numerical measures of toxicity
No information available
The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (dermal)	865.80	mg/kg
ATEmix (inhalation-vapor)	21.688	mg/L
ATEmix (inhalation-dust/mist)	2.1688	mg/kg

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation
Causes severe burns.
Mixture
No data available.
Ingredient Skin Corrosion/Irritation Data
Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Lithium hydroxide monohydrate (60 - 70%) CAS#: 1310-66-3	Existing human experience	Human	None reported	None reported	Corrosive to skin	ERMA
Sodium azide (1 - 5%) CAS#: 26628-22-8	OECD Test 439: In Vitro Skin Irritation: Reconstructed Human Epidermis (Rhe) Test Method	Human	15 mg	15 minutes	Not corrosive or irritating to skin	ECHA

Serious eye damage/eye irritation
Classification based on data available for ingredients. Causes serious eye damage. Causes burns.
Mixture
No data available.
Ingredient Eye Damage/Eye Irritation Data
Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sodium azide (1 - 5%) CAS#: 26628-22-8	OECD Test 437: In Vitro Bovine Corneal Opacity and Permeability Test Method for Identifying Ocular	Cattle	0.75 mL	4 hours	Not corrosive or irritating to eyes	ECHA

	Corrosives and Severe Irritants					

Respiratory or skin sensitization
Based on available data, the classification criteria are not met.
Mixture
No data available.
Ingredient Sensitization Data
Test data reported below.
Skin Sensitization Exposure Route

Chemical name	Test method	Species	Results	Key literature references and sources for data
Potassium iodide (30 - 40%) CAS#: 7681-11-0	Patch test	Human	Not confirmed to be a skin sensitizer	ERMA

STOT - single exposure
Based on available data, the classification criteria are not met.

Mixture
No data available.
Ingredient Specific Target Organ Toxicity Single Exposure Data
Test data reported below.
Oral Exposure Route

STOT - repeated exposure
Causes damage to organs through prolonged or repeated exposure.

H372 - Causes damage to the following organs through prolonged or repeated exposure: thyroid gland.
Mixture
No data available.
Ingredient Specific Target Organ Toxicity Repeat Exposure Data
Test data reported below.
Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium iodide (30 - 40%) CAS#: 7681-11-0	Rat NOAEL	0.5 mg/kg	90 days	None reported	ECHA

Carcinogenicity
Based on available data, the classification criteria are not met.
Mixture
No data available.
Ingredient Carcinogenicity Data
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
Potassium iodide (30 - 40%) CAS#: 7681-11-0	Cytogenetic analysis	Rat ascites tumor	500 mg/kg	None reported	Positive test result for mutagenicity	RTECS

Mixture *invivo* Data
No data available.
Substance *invivo* Data
No data available.
Reproductive toxicity
Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.
Mixture
No data available.
Ingredient Reproductive Toxicity Data
Test data reported below.
Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium iodide (30 - 40%) CAS#: 7681-11-0	Human TD_{Lo}	2700 mg/kg	39 weeks	**Specific Developmental Abnormalities** Endocrine System	RTECS

Aspiration hazard
Based on available data, the classification criteria are not met.
Other adverse effects No information available.

Section 12: Ecological information

Toxicity

Ecotoxicity Harmful to aquatic life with long lasting effects.

Mixture

Aquatic Acute Toxicity
No data available.
Aquatic Chronic Toxicity
No data available.
Substance

Aquatic Acute Toxicity
Test data reported below.
Fish

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Sodium azide (1 - 5%) CAS#: 26628-22-8	96 hours	*Lepomis macrochirus*	LC_{50}	0.68 mg/L	PEEN

Crustacea

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Sodium azide (1 - 5%) CAS#: 26628-22-8	48 Hours	*Daphnia pulex*	EC_{50}	4.2 mg/L	PEEN

Algae

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Sodium azide	96 hours	*Selenastrum capricornutum*	EC_{50}	0348 mg/L	PEEN

(1 - 5%) CAS#: 26628-22-8					

Aquatic Chronic Toxicity
No data available.
Persistence and degradability

Mixture
No data available.
Bioaccumulation
Material does not bioaccumulate
Mixture
No data available.
Partition coefficient log K_{ow} ~ 0
Mobility

Soil Organic Carbon-Water Partition Coefficient log K_{oc} ~ 0
Other adverse effects
No information available

Section 13: Disposal considerations

Waste treatment methods

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

Contaminated packaging Do not reuse empty containers.

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

Section 14: Transport information

Note: No special precautions necessary.

IATA
14.1 UN number or ID number UN2680
14.2
14.3 Transport hazard class(es) 8
14.4 Packing group II
14.5 Environmental hazards No
14.6 Special precautions for user
Special Provisions None

IMDG
14.1 UN number or ID number UN2680
14.2
14.3 Transport hazard class(es) 8
14.4 Packing Group II
14.5 Environmental hazards No
14.6 Special precautions for user
Special Provisions None F-A S-B
14.7 Maritime transport in bulk according to IMO instruments No information available

Rail transport
14.1 UN number or ID number UN2680
14.2 UN proper shipping name LITHIUM HYDROXIDE MIXTURE
14.3 Hazard Class 8

14.4 Packing Group	II
Description	UN2680, LITHIUM HYDROXIDE MIXTURE, 8, II
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None
Classification code	C6

Road transport

14.1 UN number or ID number	2680
14.2 UN proper shipping name	LITHIUM HYDROXIDE MIXTURE
14.3 Transport hazard class(es)	8
14.4 Packing Group	II
Description	2680, LITHIUM HYDROXIDE MIXTURE, 8, II
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None
Classification code	C6
Tunnel restriction code	(E)

Section 15: Regulatory information

Regulatory information

National regulations

Environmental Protection and Management (Hazardous Substances) Regulations
Verify that license requirements are met.

Chemical name	Hazardous Substances	transport
Sodium azide	Exclusions: Air bag devices in motor vehicles	0kg

Environmental Public Health Act
Dispose of waste product or used containers according to local regulations.
Hazardous Waste (Control of Export, Import and Transit) Act
It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Take note that wastes may be subject to export, import, or transit controls pursuant to the Basel convention and/or local regulations implementing the Basel convention.
Maritime and Port Authority of Singapore (Dangerous Goods, Petroleum and Explosives) Regulations
Regulated. See section 14 for more information.
Workplace Safety and Health Act
See section 8 for national exposure control parameters. Comply with the health and safety at work laws.

International Regulations

The Rotterdam Convention Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECI	Complies
PICCS	Complies
AICS	Complies

NZIoC	Complies
TCSI	Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
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
NZIoC - New Zealand Inventory of Chemicals
TCSI - Taiwan Chemical Substance Inventory

15.2. Chemical safety assessment

Chemical Safety Report No information available

Section 16: Other information

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

ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
ATSDR	ATSDR (Agency for Toxic Substances and Disease Registry)
CCRIS	CCRIS (Chemical Carcinogenesis Research Information System)
CDC	CDC (Center for Disease Control)
CEPA	CEPA (Canadian Environmental Protection Agency)
CICAD	CICAD (Concise International Chemical Assessment Documents)
ECHA	ECHA (The European Chemicals Agency)
EEA	EEA (European Environment Agency)
EPA	U.S. Environmental Protection Agency
ERMA	ERMA (New Zealands Environmental Risk Management Authority)
ECOSARS	Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™
FDA	Food & Drug Administration (FDA)
GESTIS	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)
HSDB	HSDB (Hazardous Substances Data Bank)
INERIS	INERIS (The National Industrial Environment and Risks Institute)
IPCS INCHEM	IPCS INCHEM (International Programme on Chemical Safety)
IUCLID	IUCLID (The International Uniform Chemical Information Database)
NITE	Japan National Institute of Technology and Evaluation (NITE)
NIH	NIH (National Institutes of Health)
NIOSH	NIOSH (National Institute for Occupational Safety and Health)
LOLI	LOLI (List of Lists - An International Chemical Regulatory Database)
NDF	no data
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH IDLH	Immediately Dangerous to Life or Health
OSHA	Occupational Safety and Health Administration of the US Department of Labor
PEEN	PEEN (Pan European Ecological Network)
RTECS	RTECS (Registry of Toxic Effects of Chemical Substances)
SIDS	SIDS (Screening Information Dataset) for High Volume Chemicals
SYKE	The Finnish Environment Institute (SYKE)
USDA	USDA (United States Department of Agriculture)
USDC	USDC (United States Department of Commerce)
WHO	WHO (World Health Organization)

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)

MAC	Maximum Allowable Concentration	Ceiling	Ceiling Limit Value
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

Prepared By	Hach Product Compliance Department
Issue Date	16-Oct-2024
Revision Date	19-Oct-2026
Revision Note	No information available

Restrictions on use For Laboratory Use Only.

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

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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End of Safety Data Sheet