

# SAFETY DATA SHEET



Revision date 15-Jul-2022

Revision Number 1

## 1. Identification

### Product identifier

Product Name B/OX 324

### Other means of identification

Product Code(s) EPI-0071

UN number or ID number UN3264

Synonyms None

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

#### Manufacturer Address

Electrochemical Products Inc.  
17000 West Lincoln Ave  
New Berlin, WI 53151  
Phone: 262-786-9330  
E-mail: us-sales@epi.com  
www.epi.com  
Fax: 262-786-9403

### Emergency telephone number

Emergency Telephone NCEC (#EPI-29003) +1 202 464 2554, +44 1865 407333

## 2. Hazard(s) identification

### Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1A
Specific target organ toxicity (repeated exposure)	Category 2

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

**Danger**

#### Hazard statements

Harmful if inhaled  
Causes severe skin burns and eye damage  
May cause cancer  
May cause damage to organs through prolonged or repeated exposure

**Appearance** Light blue solution**Physical state** Liquid**Odor** Characteristic**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Use only outdoors or in a well-ventilated area  
 Wash face, hands and any exposed skin thoroughly after handling  
 Do not breathe dust/fume/gas/mist/vapors/spray

**Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a POISON CENTER or doctor  
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 Immediately call a POISON CENTER or doctor  
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Unknown acute toxicity****Other information**

May be harmful if swallowed. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

### 3. Composition/information on ingredients

**Substance**

Not applicable.

**Mixture**

Chemical name	CAS No	Weight-%	Trade secret
Water	7732-18-5	70-85	*
Phosphoric acid	7664-38-2	5-9	*
Cupric sulfate	7758-98-7	2.5-3.5	*
Selenous acid	7783-00-8	1-2.5	*
Surfactants	Trade secret	0.3-0.6	*
Nitric acid	7697-37-2	0.25-0.65	*
Hydrogen chloride	7647-01-0	0.1-0.28	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. First-aid measures

**Description of first aid measures**

<b>General advice</b>	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.
<b>Inhalation</b>	Remove to fresh air. 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. 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. If eye irritation persists: Get medical advice/attention.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get medical attention immediately if symptoms occur.
<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 vapors or mists. Use personal protective equipment as required.

**Most important symptoms and effects, both acute and delayed**

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

**Indication of any immediate medical attention and special treatment needed**

**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.

**5. Fire-fighting measures**

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<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 vapors.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	None.
<b>Sensitivity to static discharge</b>	None.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** 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 vapors or mists.

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

### 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** Pick up and transfer to properly labeled containers.

## 7. Handling and storage

### 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 before reuse. Avoid breathing vapors or mists.

### 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.

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Phosphoric acid 7664-38-2	STEL: 3 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> (vacated) TWA: 1 mg/m <sup>3</sup> (vacated) STEL: 3 mg/m <sup>3</sup>	IDLH: 1000 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>
Cupric sulfate 7758-98-7	TWA: 1 mg/m <sup>3</sup> Cu dust and mist	-	IDLH: 100 mg/m <sup>3</sup> Cu dust and mist TWA: 1 mg/m <sup>3</sup> Cu dust and mist
Selenous acid 7783-00-8	TWA: 0.2 mg/m <sup>3</sup> Se	TWA: 0.2 mg/m <sup>3</sup> Se (vacated) TWA: 0.2 mg/m <sup>3</sup> Se	IDLH: 1 mg/m <sup>3</sup> Se TWA: 0.2 mg/m <sup>3</sup> except Selenium hexafluoride Se
Nitric acid 7697-37-2	STEL: 4 ppm TWA: 2 ppm	TWA: 2 ppm TWA: 5 mg/m <sup>3</sup> (vacated) TWA: 2 ppm (vacated) TWA: 5 mg/m <sup>3</sup> (vacated) STEL: 4 ppm (vacated) STEL: 10 mg/m <sup>3</sup>	IDLH: 25 ppm TWA: 2 ppm TWA: 5 mg/m <sup>3</sup> STEL: 4 ppm STEL: 10 mg/m <sup>3</sup>
Hydrogen chloride 7647-01-0	Ceiling: 2 ppm	Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>

### **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** Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Tight sealing safety goggles. Face protection shield.

**Hand protection** Wear suitable gloves. Impervious gloves.

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

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**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 immediately after handling the product.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

**Physical state** Liquid  
**Appearance** Light blue solution  
**Color** light blue  
**Odor** Characteristic

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	0 - 2	None known
<b>Melting point / freezing point</b>	0 °C / 32 °F	None known
<b>Boiling point / boiling range</b>	105 °C / 221 °F	None known
<b>Flash point</b>	No data available	None known
<b>Relative density</b>	1.125 - 1.159	None known
<b>Water solubility</b>	Completely	None known

### Other information

**VOC Content (%)** 0

## 10. Stability and reactivity

**Reactivity** No information available.

**Chemical stability** Stable under normal conditions.

**Possibility of hazardous reactions** None under normal processing.

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

**Incompatible materials** Acids. Bases. Oxidizing agent.

**Hazardous decomposition products** None known based on information supplied.

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). 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.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Causes burns. (based on components). 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

##### Numerical measures of toxicity

No information available

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

<b>ATEmix (oral)</b>	2,773.40 mg/kg
<b>ATEmix (dermal)</b>	17,947.90 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	2.4654 mg/l

#### Unknown acute toxicity

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg ( Rat )	-	-
Phosphoric acid 7664-38-2	= 1530 mg/kg ( Rat )	= 2740 mg/kg ( Rabbit )	> 850 mg/m <sup>3</sup> ( Rat ) 1 h
Cupric sulfate 7758-98-7	= 300 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-
Surfactants	= 4 g/kg ( Rat )	-	-
Nitric acid 7697-37-2	-	-	= 2500 ppm ( Rat ) 1 h
Hydrogen chloride 7647-01-0	238 - 277 mg/kg ( Rat )	> 5010 mg/kg ( Rabbit )	= 1.68 mg/L ( Rat ) 1 h

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

**Skin corrosion/irritation** Classification based on data available for ingredients. Causes burns.

**Serious eye damage/eye irritation** Classification based on data available for ingredients. Risk of serious damage to eyes. Causes burns.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Selenous acid 7783-00-8	-	Group 3	-	-
Nitric acid 7697-37-2	-	Group 2A Group 1	-	X
Hydrogen chloride 7647-01-0	-	Group 3	-	X

#### Legend

##### IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

##### OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Target organ effects** Liver, Kidney, Respiratory system, Eyes, Skin, Blood.

**Aspiration hazard** No information available.

**Other adverse effects** No information available.

**Interactive effects** No information available.

## 12. Ecological information

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

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Cupric sulfate 7758-98-7	-	LC50: =0.1mg/L (96h, Oncorhynchus mykiss)	-	EC50: 0.0058 - 0.0073mg/L (48h, Daphnia magna)

**Persistence and degradability** No information available.

**Bioaccumulation** There is no data for this product.

**Component Information**

Chemical name	Partition coefficient
Nitric acid 7697-37-2	-2.3

**Other adverse effects** No information available.

**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.

**US EPA Waste Number** U204

**14. Transport information****DOT**

**UN number or ID number** UN3264  
**Proper shipping name** Corrosive liquid, acidic, inorganic, n.o.s.  
**Transport hazard class(es)** 8  
**Packing group** II  
**Reportable Quantity (RQ)** (Cupric sulfate: RQ (kg)= 4.54, Zinc sulfate, monohydrate: RQ (kg)= 454.00, Selenous acid: RQ (kg)= 4.54) Cupric sulfate: RQ (lb)= 10, Zinc sulfate, monohydrate: RQ (lb)= 1000.00, Selenous acid: RQ (lb)= 10  
**DOT reportable quantity kg (calculated)** Cupric sulfate: RQ (kg)= 143.00, Zinc sulfate, monohydrate: RQ (kg)= 10890.00, Selenous acid: RQ (kg)= 271.00  
**DOT Reportable Quantity lbs. (calculated)** Cupric sulfate: RQ (lb)= 315.00, Zinc sulfate, monohydrate: RQ (lb)= 23987.00, Selenous acid: RQ (lb)= 596.00  
**Special Provisions** 386, B2, IB2, T11, TP2, TP27  
**DOT Marine Pollutant** I  
**Marine pollutant** Zinc sulfate, monohydrate, Cupric sulfate  
**Description** UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Nitric acid), 8, II, Marine pollutant (Zinc sulfate, monohydrate, Cupric sulfate)  
**Emergency Response Guide Number** 154

**TDG**

**UN number or ID number** UN3264  
**UN proper shipping name** Corrosive liquid, acidic, inorganic, n.o.s.  
**Transport hazard class(es)** 8  
**Packing group** II  
**Special Provisions** 16  
**Marine pollutant** Zinc sulfate, monohydrate, Cupric sulfate.  
**Description** UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Nitric acid), 8, II

**MEX**

**UN number or ID number** UN3264  
**UN proper shipping name** Corrosive liquid, acidic, inorganic, n.o.s.  
**Transport hazard class(es)** 8  
**Packing group** II  
**Technical Name** Phosphoric acid, Nitric acid  
**Description** UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Nitric acid), 8, II  
**Special Provisions** 274



**ICAO (air)**

UN number or ID number	UN3264
UN proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s.
Transport hazard class(es)	8
Packing group	II
Description	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Nitric acid), 8, II
Special Provisions	A3

**IATA**

UN number or ID number	UN3264
UN proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s.
Transport hazard class(es)	8
Packing group	II
Technical Name	Phosphoric acid, Nitric acid
Description	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Nitric acid), 8, II
Special Provisions	A3, A803
ERG Code	8L

**IMDG**

UN number or ID number	UN3264
UN proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s.
Transport hazard class(es)	8
Packing group	II
EmS-No	F-A, S-B
Special Provisions	274
Marine pollutant	P
Marine Pollutant	Zinc sulfate, monohydrate
Description	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Nitric acid, Zinc sulfate, monohydrate), 8, II, Marine pollutant

**RID**

UN number or ID number	UN3264
UN proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s.
Transport hazard class(es)	8
Packing group	II
Classification code	C1
Special Provisions	274
Description	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Nitric acid), 8, II, Environmentally Hazardous

**ADR**

UN number or ID number	UN3264
UN proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s.
Transport hazard class(es)	8
Packing group	II
Classification code	C1
Tunnel restriction code	(E)
Special Provisions	274
Description	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Nitric acid), 8, II, (E), Environmentally Hazardous

**ADN**

UN number or ID number	UN3264
UN proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s.
Transport hazard class(es)	8
Packing group	II
Classification code	C1
Special Provisions	274
Description	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, Nitric acid), 8, II, Environmentally Hazardous
Equipment Requirements	PP, EP

**15. Regulatory information**

**International Inventories**

TSCA Complies

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Water	7732-18-5	Present	Active
Phosphoric acid	7664-38-2	Present	Active
Trade secret	-	Present	Active
Cupric sulfate	7758-98-7	Present	Active
Trade secret	-	Present	Active
Selenous acid	7783-00-8	Present	Active
Surfactants	-	Present	Active
Nitric acid	7697-37-2	Present	Active
Hydrogen chloride	7647-01-0	Present	Active

**DSL/NDSL** Complies  
**EINECS/ELINCS** Does not comply  
**ENCS** Complies  
**IECSC** Complies  
**KECL** Does not comply  
**PICCS** Does not comply  
**AICS** Complies

**Legend:****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**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
Phosphoric acid 7664-38-2	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

Cupric sulfate 7758-98-7	10 lb	-	RQ 10 lb final RQ RQ 4.54 kg final RQ
Selenous acid 7783-00-8	10 lb	10 lb	RQ 10 lb final RQ RQ 4.54 kg final RQ
Nitric acid 7697-37-2	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ
Hydrogen chloride 7647-01-0	5000 lb	5000 lb	RQ 5000 lb final RQ RQ 2270 kg final RQ

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Phosphoric acid 7664-38-2	X	-	X
Trade secret	X	-	X
Cupric sulfate 7758-98-7	X	-	X
Selenous acid 7783-00-8	X	-	X
Nitric acid 7697-37-2	X	-	X
Hydrogen chloride 7647-01-0	X	-	X

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**16. Other information**

**NFPA** Health hazards 3 Flammability 0 Instability 0 Special hazards -  
**HMIS** Health hazards 3\* Flammability 0 Physical hazards 0 Personal protection X  
*Chronic Hazard Star Legend \* = Chronic Health Hazard*

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: Exposure controls/personal protection**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
 Ceiling Maximum limit value \* Skin designation

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGl(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision date** 15-Jul-2022  
**Revision Note** No information available.

**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**