# SAFETY DATA SHEET



Revision date 07-Jul-2022

**Revision Number** 1

# 1. Identification

Product identifier

Product Name B/OX 314

Other means of identification

Product Code(s) EPI-0061C

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

If eye irritation persists: Get medical advice/attention

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower

Wash contaminated clothing before reuse

If skin irritation or rash occurs: Get medical advice/attention

IF INHALED: Remove person to fresh air and keep comfortable for breathing

If experiencing respiratory symptoms: Call a POISON CENTER or doctor

Rinse mouth

Do NOT induce vomiting

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

# **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.

## <u>Mixture</u>

Chemical name	CAS No	Weight-%	Trade secret
Water	7732-18-5	80-90	*
Zinc chloride	7646-85-7	3-8	*
Sulfuric acid	7664-93-9	2-4	*
Selenious acid	7783-00-8	1-4	*
Trade secret	Trade secret	1-5	*
Sulfuric acid, copper(2+) salt (1:1)	7758-98-7	1.5-3	*

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

# 4. First-aid measures

### Description of first aid measures

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

attendance. IF exposed or concerned: Get medical advice/attention.

Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical Inhalation

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 immediate medical

advice/attention.

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep Eye contact

eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present

and easy to do. Continue rinsing. Get immediate medical advice/attention.

Wash off immediately with soap and plenty of water while removing all contaminated Skin contact

clothes and shoes. Get immediate medical advice/attention.

Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Ingestion

Never give anything by mouth to an unconscious person. Get immediate medical

advice/attention.

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. 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. See

section 8 for more information.

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

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Note to physicians

> 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

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

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

Specific hazards arising from the chemical

**Explosion data** Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Special protective equipment for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition

gear. Use personal protection equipment.

can lead to release of irritating gases and vapors.

## 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
Zinc chloride	STEL: 2 mg/m³ fume	TWA: 1 mg/m <sup>3</sup> fume	IDLH: 50 mg/m <sup>3</sup> fume
7646-85-7	TWA: 1 mg/m <sup>3</sup> fume	(vacated) TWA: 1 mg/m³ fume	TWA: 1 mg/m³ fume
		(vacated) STEL: 2 mg/m <sup>3</sup> fume	STEL: 2 mg/m³ fume
Sulfuric acid	TWA: 0.2 mg/m³ thoracic	TWA: 1 mg/m <sup>3</sup>	IDLH: 15 mg/m <sup>3</sup>
7664-93-9	particulate matter	(vacated) TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>
Selenious acid	TWA: 0.2 mg/m³ Se	TWA: 0.2 mg/m³ Se	IDLH: 1 mg/m³ Se
7783-00-8		(vacated) TWA: 0.2 mg/m³ Se	TWA: 0.2 mg/m <sup>3</sup> except
		-	Selenium hexafluoride Se
Trade secret	TWA: 0.5 mg/m <sup>3</sup> Mo respirable	TWA: 5 mg/m <sup>3</sup> Mo	IDLH: 1000 mg/m <sup>3</sup> Mo
	particulate matter	(vacated) TWA: 5 mg/m <sup>3</sup> Mo	-
Sulfuric acid, copper(2+) salt	TWA: 1 mg/m <sup>3</sup> Cu dust and mist	-	IDLH: 100 mg/m <sup>3</sup> Cu dust and
(1:1)			mist
7758-98-7			TWA: 1 mg/m³ Cu dust and
			mist

## 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.

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

AppearanceLight blue solutionColorLight blue solutionOdorCharacteristic

Property Values Remarks • Method

None known 1 - 3 Melting point / freezing point No data available None known Boiling point / boiling range 105 °C / 221 °F None known Flash point No data available None known Relative density 1.1 - 1.2 None known Water solubility Completely soluble 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**

**Inhalation** 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.

**Eye contact** 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.

**Skin contact** Specific test data for the substance or mixture is not available. Corrosive. (based on

components). Causes burns.

**Ingestion** 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

ATEmix (oral) 2,550.20 mg/kg
ATEmix (dermal) 22,580.40 mg/kg
ATEmix (inhalation-dust/mist) 1.60 mg/l

Unknown acute toxicity

**Component Information** 

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 90 mL/kg (Rat)	-	-
7732-18-5			
Zinc chloride	= 1100 mg/kg (Rat)	-	<= 1975 mg/m³ ( Rat ) 10 min
7646-85-7			
Sulfuric acid	= 2140 mg/kg (Rat)	-	= 0.375 mg/L (Rat) 4 h
7664-93-9			
Trade secret	= 4000 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 5.84 mg/L (Rat) 4 h
Sulfuric acid, copper(2+) salt	= 300 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
(1:1)			
7758-98-7			

## 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
Sulfuric acid	-	Group 1	Known	X
7664-93-9				
Selenious acid	-	Group 3	-	-
7783-00-8				

#### Legend

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

**NTP (National Toxicology Program)** 

Known - Known Carcinogen

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, Central Vascular System (CVS),

Teeth.

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
Sulfuric acid 7664-93-9	-	LC50: >500mg/L (96h, Brachydanio rerio)	-	-
Sulfuric acid, copper(2+) salt (1:1) 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.

No information available. Other adverse effects

# 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

UN3264 **UN** number or ID number

Proper shipping name Corrosive liquid, acidic, inorganic, n.o.s.

Transport hazard class(es)

Packing group Ш

Reportable Quantity (RQ) (Sulfuric acid: RQ (kg)= 454.00, Sulfuric acid, copper(2+) salt (1:1): RQ (kg)= 4.54, Zinc

chloride: RQ (kg)= 454.00, Selenious acid: RQ (kg)= 4.54) Sulfuric acid: RQ (lb)= 1000.00, Sulfuric acid, copper(2+) salt (1:1): RQ (lb)= 10, Zinc chloride: RQ (lb)=

1000.00, Selenious acid: RQ (lb)= 10

DOT reportable quantity kg

(calculated)

Sulfuric acid: RQ (kg)= 12861.00, Sulfuric acid, copper(2+) salt (1:1): RQ (kg)= 243.00,

**DOT Reportable Quantity lbs.** 

(calculated)

Zinc chloride: RQ (kg)= 12611.00, Selenious acid: RQ (kg)= 151.00 Sulfuric acid: RQ (lb)= 28329.00, Sulfuric acid, copper(2+) salt (1:1): RQ (lb)= 535.00, Zinc chloride: RQ (lb)= 27778.00, Selenious acid: RQ (lb)= 333.00

386, B2, IB2, T11, TP2, TP27 **Special Provisions** 

**DOT Marine Pollutant** 

Marine pollutant Zinc chloride, Selenious acid

Description

UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Zinc chloride, Sulfuric acid), 8, II,

Marine pollutant (Zinc chloride, Selenious acid)

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**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 Ш **Special Provisions** 16

Marine pollutant Zinc chloride, Selenious acid.

Description UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Zinc chloride, Sulfuric 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) Packing group

**Technical Name** Zinc chloride, Sulfuric acid

Description UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Zinc chloride, Sulfuric 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 | |

**Description** UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Zinc chloride, Sulfuric 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 | |

Technical Name Zinc chloride, Sulfuric acid

**Description** UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Zinc chloride, Sulfuric acid), 8, II

**Special Provisions** A3, A803

ERG Code 8L

<u>IMDG</u>

UN number or ID number UN3264

**UN proper shipping name** Corrosive liquid, acidic, inorganic, n.o.s.

Transport hazard class(es) 8
Packing group || EmS-No F-

EmS-No F-A, S-B Special Provisions 274 Marine pollutant P

Marine Pollutant Zinc chloride

**Description** UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Zinc chloride, Sulfuric acid, Zinc

chloride), 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. (Zinc chloride, Sulfuric acid), 8, II,

Environmentally Hazardous

<u>ADR</u>

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. (Zinc chloride, Sulfuric acid), 8, II, (E),

**Environmentally Hazardous** 

<u>ADN</u>

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. (Zinc chloride, Sulfuric acid), 8, II,

**Environmentally Hazardous** 

Equipment Requirements PP, EP

15. Regulatory information

**International Inventories** 

Revision date 07-Jul-2022

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TSCA Complies

Chemical name	CAS No	US TSCA Inventory listing	US TSCA inactive/active designation
Water	7732-18-5	Present	Active
Trade secret	-	Present	Active
Zinc chloride	7646-85-7	Present	Active
Sulfuric acid	7664-93-9	Present	Active
Selenious acid	7783-00-8	Present	Active
Trade secret	•	Present	Active
Sulfuric acid, copper(2+) salt (1:1)	7758-98-7	Present	Active

DSL/NDSL Does not comply
EINECS/ELINCS Does not comply
ENCS Complies
IECSC Complies
KECL Does not comply
PICCS Complies
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	, , , , , , , , , , , , , , , , , , , ,	Reportable Quantity (RQ)
		Substances RQs	
Zinc chloride	1000 lb	-	RQ 1000 lb final RQ
7646-85-7			RQ 454 kg final RQ
Sulfuric acid	1000 lb	1000 lb	RQ 1000 lb final RQ
7664-93-9			RQ 454 kg final RQ
Selenious acid	10 lb	10 lb	RQ 10 lb final RQ
7783-00-8			RQ 4.54 kg final RQ
Sulfuric acid, copper(2+) salt (1:1)	10 lb	-	RQ 10 lb final RQ

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7758-98-	7	RQ 4.54 kg final RQ

#### **US State Regulations**

## **California Proposition 65**

This product contains the following Proposition 65 chemicals:.

Chemical name	California Proposition 65	
Sulfuric acid - 7664-93-9	Carcinogen	

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

Chemical name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Zinc chloride 7646-85-7	Х	-	X
Sulfuric acid 7664-93-9	Х	-	X
Selenious acid 7783-00-8	Х	-	X
Sulfuric acid, copper(2+) salt (1:1) 7758-98-7	Х	-	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 07-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**