According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 02.09.2018

Cupric Chloride, Anhydrous

SECTION 1: Identification

Product identifier

Product name: Cupric Chloride, Anhydrous Product code: S25281

Recommended use of the product and restriction on use Relevant identified uses: Not determined or not applicable. Uses advised against: Not determined or not applicable. Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer: Supplier:

AquaPhoenix Scientific 860 Gitts Run Road	Fisher Science Education 6771 Silver Crest Road
Hanover	Nazareth
PA 17331	PA 18064
(717) 632-1291	800 955-1177

Emergency telephone number: United States

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazard identification

GHS classification:

Acute toxicity (oral), category 4 Acute toxicity (dermal), category 4 Serious eye damage, category 1 Skin irritation, category 2 Acute aquatic hazard, category 1 Chronic aquatic hazard, category 2

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H302 Harmful if swallowed H312 Harmful in contact with skin H318 Causes serious eye damage H315 Causes skin irritation H400 Very toxic to aquatic life H411 Toxic to aquatic life with long lasting effects Page 1 of 9

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Precautionary statements:

P264 Wash skin thoroughly after handling

P270 Do not eat, drink or smoke when using this product

P280 Wear protective gloves/protective clothing/eye protection/face protection

P273 Avoid release to the environment

P301+P330+P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

P302+P352+P312 If on skin: Wash with soap and water. Call a poison center or doctor/physician if you feel unwell

P305+P351+P338+P310 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/physician.

P321 Specific treatment (see supplemental first aid instructions on this label).

P362 Take off contaminated clothing and wash before reuse

P332+P313 If skin irritation occurs: Get medical advice/attention

P391 Collect spillage

P405 Store locked up

P501 Dispose of contents and container as instructed in Section 13

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 7447-39-4	Copper(II) chloride, anhydrous	100

Additional Information: None

SECTION 4: First-aid measures

Description of first-aid measures

General notes:

Not determined or not available.

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position Maintain an unobstructed airway

After skin contact:

Rinse affected area with soap and water If symptoms develop or persist, seek medical attention Wash affected area with soap and water Seek medical attention if symptoms develop or persist

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes If symptoms develop or persist, seek medical attention Remove contact lens(es) if able to do so during rinsing Immediately call a POISON CONTROL CENTER or seek medical attention

After ingestion:

Rinse mouth thoroughly Seek medical attention if irritation, discomfort, or vomiting persists

According to Canadian Hazardous Products Regulations and WHMIS 2015

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Call a POISON CONTROL CENTER or seek medical attention if you feel unwell Do not induce vomiting Rinse mouth and then drink plenty of water

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not available.

Delayed symptoms and effects:

Not determined or not available.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not available.

Notes for the doctor:

Not determined or not available.

SECTION 5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

Special protective equipment for firefighters:

Wear protective eye wear, gloves and clothing Refer to Section 8

Special precautions:

Avoid inhaling gases, fumes, dust, mist, vapor and aerosols Avoid contact with skin, eyes and clothing

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation Ensure air handling systems are operational Wear protective eye wear, gloves and clothing

Environmental precautions:

Should not be released into the environment Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing

Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 02.09.2018

Cupric Chloride, Anhydrous

Precautions for safe handling:

Do not eat, drink, smoke or use personal products when handling chemical substances. Avoid breathing mist or vapor.

Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
United States (OSHA)	Copper(II) chloride, anhydrous	7447-39-4	OSHA PEL 1 mg/m3, as Cu (dusts and mists)
	Copper(II) chloride, anhydrous	7447-39-4	OSHA PEL 0.1 mg/m3, as Cu (fume)
NIOSH	Copper(II) chloride, anhydrous	7447-39-4	NIOSH IDLH 100 mg/m3, as Cu (fume)
ACGIH	Copper(II) chloride, anhydrous	7447-39-4	ACGIH TLV 1 mg/m3, as Cu, (dusts and mists)
	Copper(II) chloride, anhydrous	7447-39-4	ACGIH TLV 0.1 mg/m3, as Cu,(fume)
Germany	Copper(II) chloride, anhydrous	7447-39-4	MAK: 0.01 mg/m3

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

General hygienic measures:

Wash hands before breaks and at the end of work. Avoid contact with skin, eyes and clothing.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

 Appearance (physical state, color):
 Yellow/brown solid .

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 02.09.2018

Cupric Chloride, Anhydrous

Odor:	Odorless.
Odor threshold:	Not determined or not available.
pH-value:	Not determined or not available.
Melting/Freezing point:	620°C (1,148°F)
Boiling point/range:	993°C (1,819°F) at 1,013.250 hPa (760.000 mmHg)
Flash point:	Not determined or not available.
Evaporation rate:	Not determined or not available.
Flammability (solid, gaseous):	Not determined or not available.
Explosion limit upper:	Not determined or not available.
Explosion limit lower:	Not determined or not available.
Vapor pressure:	Not determined or not available.
Vapor density:	Not determined or not available.
Density:	Not determined or not available.
Relative density:	3.386 g/mL at 25°C (77°F)
Solubilities:	Soluble in water.
Partition coefficient (n-octanol/water):	Not determined or not available.
Auto/Self-ignition temperature:	Not determined or not available.
Decomposition temperature:	Not determined or not available.
Dynamic viscosity:	Not determined or not available.
Kinematic viscosity:	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:

Does not react under normal conditions of use and storage.

Chemical stability:

Stable under normal conditions of use and storage.

Possibility of hazardous reactions:

None under normal conditions of use and storage.

Conditions to avoid:

Incompatible materials. Dust generation. Excess heat. Exposure to moist air or water.

Incompatible materials:

Moisture. Alkali metals. Potassium. Sodium. Nitromethane. Hydrazine. Sodium hypobromite.

Hazardous decomposition products:

Hydrogen chloride.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Harmful if swallowed Harmful in contact with skin Product data: No data available.

Substance data:

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 02.09.2018

Cupric Chloride, Anhydrous

Name	Route	Result
Copper(II) chloride, anhydrous	oral	LD50 Rat: 140 mg/kg

Skin corrosion/irritation

Assessment: Causes skin irritation Product data: No data available.

Substance data: No data available.

Serious eye damage/irritation

Assessment: Causes serious eye damage Product data: No data available. Substance data: No data available.

Respiratory or skin sensitization

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC): None of the ingredients are listed. **National Toxicology Program (NTP):** None of the ingredients are listed.

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met. **Product data:** No data available.

Substance data: No data available.

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.Product data: No data available.Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Information on likely routes of exposure: No data available.

Symptoms related to the physical, chemical and toxicological characteristics: No data available.

Other information: No data available.

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 02.09.2018

Cupric Chloride, Anhydrous

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Very toxic to aquatic life

Product data: No data available.

Substance data:

Name	Result	
Copper(II) chloride, anhydrous	LC50 Oncorhynchus kisutch: 286 ug/l/96 hr	
	EC10 Salmo gairdneri (rainbow trout; embryo, larvae): 16.5 ug/l/28 days	

Chronic (long-term) toxicity

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available. **Substance data:** No data available.

Bioaccumulative potential

Product data: No data available. Substance data: No data available.

Mobility in soil

Product data: No data available. **Substance data:** No data available.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

SECTION 14: Transport information

Canadian Transportation of Dangerous Goods (TDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	2802
UN proper shipping name	COPPER CHLORIDE
UN transport hazard class(es)	8

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 02.09.2018

Cupric Chloride, Anhydrous

Packing group	
Environmental hazards	None
Special precautions for user	None
· ·	30 g/30 ml
Limited quantity	5KG

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	2802
UN proper shipping name	COPPER CHLORIDE
UN transport hazard class(es)	8
Packing group	
Environmental hazards	None
Special precautions for user	None
ERG code	154
Excepted quantities	30 g/30 ml
Passenger and cargo	25KG
Cargo aircraft only	100KG
Limited quantity	5KG

SECTION 15: Regulatory information

Canada regulations

Do	Domestic substances list (DSL):					
	7447-39-4	Copper(II) chloride, anhydrous	Listed			
			-			

Non-domestic substances list (NDSL): Not determined.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

NFPA: 2-0-0

HMIS: 2-0-0

Initial preparation date: 02.09.2018

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End of Safety Data Sheet

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