

# **SAFETY DATA SHEET**

Creation Date 20-May-2014	Revision Date 20-May-2015	Revision Number 1
	1. Identification	
Product Name	Cupric Sulfate Anhydrous (Certified)	
Cat No. :	C3391	
Synonyms	Copper(II) sulfate anyhydrous	
Recommended Use	Laboratory chemicals.	
Uses advised against Details of the supplier of the safety	No Information available data sheet	
<b>Company</b> Post Apple Scientific, inc. 8893 Gulf Rd North East, PA 16428 Tel: 814-725-3330	Emergency Telephone Number CHEMTREC®, Inside the USA: 800-424-9300 CHEMTREC®, Outside the USA: 001-703-527-3887	

2. Hazard(s) identification

## Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity	Category 4	
Skin Corrosion/irritation	Category 2	
Serious Eye Damage/Eye Irritation	Category 2	

## Label Elements

Signal Word Warning

### **Hazard Statements**

Harmful if swallowed Causes skin irritation Causes serious eye irritation



## Precautionary Statements

## Prevention

Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product

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

### Skin

IF ON SKIN: Wash with plenty of soap and water

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

### Eyes

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

### Ingestion

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

Rinse mouth

## Disposal

Dispose of contents/container to an approved waste disposal plant

### Hazards not otherwise classified (HNOC)

Very toxic to aquatic life with long lasting effects

## 3. Composition / information on ingredients

Component	CAS-No	Weight %		
Cupric sulfate	7758-98-7	98		
	1 First sid massing			
	4. First-aid measure	S		
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.			
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention symptoms occur.			
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with respiratory medical device. Obtain medical attention.			
Ingestion	Do not induce vomiting. Call a physician o	or Poison Control Center immediately.		
Most important symptoms/effects Notes to Physician	No information available. Treat symptomatically			
	5. Fire-fighting measu	res		
Suitable Extinguishing Media	Substance is nonflammable; use agent mo	ost appropriate to extinguish surrounding fire.		
Unsuitable Extinguishing Media	No information available			
Flash Point Method -	No information available No information available			
Autoignition Temperature Explosion Limits	No information available			
Upper	No data available			

Lower No data available Sensitivity to Mechanical Impact No information available Sensitivity to Static Discharge No information available

### **Specific Hazards Arising from the Chemical**

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

**Hazardous Combustion Products** 

Highly toxic fumes Sulfur oxides

### **Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

<u>NFPA</u>	Health 2	<b>Flammability</b> 0	Instability 1	Physical hazards N/A
		6. Accidental rel	ease measures	
Persona	al Precautions	Use personal protective equencies Avoid contact with skin, eye	• •	ntilation. Avoid dust formation.
Environ	mental Precautions	Should not be released into Information.	the environment. See Section	n 12 for additional ecological
Methods	s for Containment and C	lean Sweep up or vacuum up sp	illage and collect in suitable c	ontainer for disposal. Avoid dust

Methods for Containment and Clean Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

	7. Handling and storage
Handling	Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Store under an inert atmosphere.

## 8. Exposure controls / personal protection

### Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Cupric sulfate	TWA: 1 mg/m <sup>3</sup>		IDLH: 100 mg/m <sup>3</sup>
	-		TWA: 1 mg/m <sup>3</sup>

### Legend

ACGIH - American Conference of Governmental Industrial Hygienists NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures	Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.
Personal Protective Equipment	
Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.
ç	9. Physical and chemical properties
Physical State	Powder Solid

## **Cupric Sulfate Anhydrous (Certified)**

Appearance Odor
Odor Threshold
рН
Melting Point/Range
Boiling Point/Range
Flash Point
Evaporation Rate
Flammability (solid,gas)
Flammability or explosive limits
Upper
Lower
Vapor Pressure
Vapor Density
Relative Density
Solubility
Partition coefficient; n-octanol/water
Autoignition Temperature
Decomposition temperature
Viscosity
Molecular Formula
Molecular Weight

Grey Odorless No information available 3.5-4.5 200 °C / 392 °F No information available No information available No information available No information available No data available No data available No information available No information available 3.6 No information available No data available No information available No information available No information available Cu O4 S 159.6

## 10. Stability and reactivity

Reactive Hazard	None known, based on information available		
Stability	Stable under normal conditions. Hygroscopic.		
Conditions to Avoid	Avoid dust formation. Incompatible products. Excess heat. Exposure to moisture.		
Incompatible Materials	Strong bases, Metals, Alkali metals, Powdered metals		
Hazardous Decomposition Produc	ts Highly toxic fumes, Sulfur oxides		
Hazardous Polymerization	Hazardous polymerization does not occur.		
Hazardous Reactions	None under normal processing.		

## 11. Toxicological information

## Acute Toxicity

Teratogenicity

#### **Component Information**

Component		LD50 Oral		LD50 Dermal		LC50 Inhalation	
Cupric sulfate		481 mg/kg (Rat)	> 100	> 1000 mg/kg (Rabbit)		Not listed	
Toxicologically Syn	ergistic	No information ava	No information available				
Products							
Delayed and immed	iate effects	as well as chronic effect	cts from short an	d long-term exposi	<u>ire</u>		
Irritation		Irritating to eyes an	nd skin				
Sensitization No information available							
Sensitization		No information ava	liable				
				ach agonov has listo			
Sensitization				ach agency has listed	d any ingredient	as a carcinoge	
	CAS-No	The table below inc		ach agency has lister	d any ingredient	as a carcinoge	
Carcinogenicity	CAS-No 7758-98-	The table below inc	dicates whether ea		, ,		
Carcinogenicity Component		The table below inc	dicates whether ea NTP Not listed	ACGIH	OSHA	Mexico	
Carcinogenicity Component Cupric sulfate		The table below inc <b>IARC</b> 7 Not listed	dicates whether ea NTP Not listed	ACGIH	OSHA	Mexico	
Carcinogenicity Component Cupric sulfate	7758-98-	The table below inc <b>IARC</b> 7 Not listed	dicates whether ea NTP Not listed ilable	ACGIH	OSHA	Mexico	
Carcinogenicity Component Cupric sulfate Mutagenic Effects Reproductive Effect	7758-98-	The table below inc IARC Not listed No information ava No information ava	dicates whether ea NTP Not listed ilable ilable.	ACGIH	OSHA	Mexico	
Carcinogenicity Component Cupric sulfate Mutagenic Effects	7758-98-	The table below inc IARC Not listed No information ava	dicates whether ea NTP Not listed ilable ilable.	ACGIH	OSHA	Mexico	

No information available.

STOT - single exposure STOT - repeated exposure	None known None known
Aspiration hazard	No information available
Symptoms / effects, both acute and delayed	No information available
Endocrine Disruptor Information	No information available
Other Adverse Effects	See actual entry in RTECS for complete information.

## 12. Ecological information

### Ecotoxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea		
Cupric sulfate	Not listed	0.1 mg/L LC50 96 h	Not listed	EC50 = 0.024 mg/L/48h		
Persistence and Degrada	ability No information	on available				
Bioaccumulation/ Accum Mobility	nulation No information					
	13. Disposal considerations					
Waste Disposal Methods         Chemical waste generators must determine whether a discarded chemical is classification hazardous waste. Chemical waste generators must also consult local, regional, an national hazardous waste regulations to ensure complete and accurate classification			local, regional, and			

	14. Transport information
DOT	
UN-No	UN3288
Proper Shipping Name	TOXIC SOLID, INORGANIC, N.O.S.
Proper technical name	(CUPRIC SULFATE)
Hazard Class	6.1
Packing Group	III
TDG	
UN-No	UN3288
Proper Shipping Name	TOXIC SOLID, INORGANIC, N.O.S.
Hazard Class	6.1
Packing Group	III
UN-No	UN3288
Proper Shipping Name	TOXIC SOLID, INORGANIC, N.O.S.
Hazard Class	6.1
Packing Group	III
IMDG/IMO	
UN-No	UN3288
Proper Shipping Name	TOXIC SOLID, INORGANIC, N.O.S.
Hazard Class	6.1
Packing Group	III
	15. Regulatory information

### **International Inventories**

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Cupric sulfate	Х	Х	-	231-847-6	-		Х	Х	Х	Х	Х

Legend: X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA. F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

### U.S. Federal Regulations

### TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Cupric sulfate	7758-98-7	98	1.0
SARA 311/312 Hazardous Categorization			
Acute Health Hazard	Yes		
Chronic Health Hazard	No		
Fire Hazard	No		
Sudden Release of Pressure Hazard	No		
Reactive Hazard	No		

### **Clean Water Act**

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Cupric sulfate	Х	10 lb	Х	-
Clean Air Act	Not applicable		·	

**OSHA** Occupational Safety and Health Administration Not applicable

#### 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)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Cupric sulfate	10 lb	-

California Proposition 65 This product does not contain any Proposition 65 chemicals

#### State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Cupric sulfate	Х	Х	Х	-	-

## **U.S. Department of Transportation**

Reportable Quantity (RQ):	Ν
DOT Marine Pollutant	Ν
DOT Severe Marine Pollutant	Ν

#### **U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

## Other International Regulations

Mexico - Grade

No information available

#### Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class	D1B Toxic materials D2B Toxic materials
	16. Other information
Prepared By	Regulatory Affairs
	Post Apple Scientific, inc. Email: gordon@postapplescientific.com
Creation Date Revision Date Print Date Revision Summary	20-May-2014 20-May-2019 20-May-2019 This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)
Disclaimer	

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

## **End of SDS**