

Issue Date 10-Apr-2015

Revision Date 04-Jun-2015

Version 2

1. IDENTIFICATION

Product identifier

Product Name Cupric Acetate Monohydrate, ACS

Other means of identification

Product Code 1300

UN/ID no. UN3077

Synonyms Copper (II) Acetate, Monohydrate, Acetic Acid, Copper (2+) Salt, Monohydrate, Cupric Acetate Monohydrate

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory chemicals.

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

Harrell Industries, Inc.
2495 Commerce Drive
Rock Hill, SC 29730

www.harrellindustries.com

Emergency telephone number

Company Phone Number 803-327-6335

Fax Number 803-327-7808

24 Hour Emergency Phone Number 800 633-8253 (PERS)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

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

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

Label elements

Emergency Overview

Danger

Hazard statements

Harmful if swallowed
Causes severe skin burns and eye damage
Causes serious eye damage
Very toxic to aquatic life with long lasting effects



DANGER! CAUSES SEVERE EYE BURNS, HARMFUL IF SWALLOWED. CAUSES IRRITATION TO SKIN AND RESPIRATORY TRACT.

Appearance Dark green crystalline solid

Physical state Solid

Odor Odorless

Precautionary Statements - Prevention

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash skin thoroughly after handling

Do not eat, drink or smoke when using this product

Avoid release to the environment

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

Causes severe irritation with symptoms of redness, pain, blurred vision, discoloration and possible eye damage.

Causes irritation, redness and pain.

Some individuals may develop copper allergies.

Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.

May result in ulceration and perforation of respiratory tract. When heated, it may give off a coppery fume, which can cause symptoms similar to the common cold (chills and stuffiness of the head).

May cause burning pain in mouth, esophagus, and stomach. Hemorrhagic gastritis, nausea, vomiting, abdominal pain, metallic taste, and diarrhea may occur. If vomiting does not occur immediately systematic copper poisoning may occur. Symptoms may include capillary damage, headache, cold sweat, weak pulse, kidney and liver damage, central nervous excitation followed by depression, jaundice, convulsions, blood effects, paralysis and coma. Death may occur from shock or renal failure.

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Synonyms

Copper (II) Acetate, Monohydrate, Acetic Acid, Copper (2+) Salt, Monohydrate, Cupric Acetate Monohydrate.

Formula

$\text{Cu}(\text{CH}_3\text{COO})_2 \cdot \text{H}_2\text{O}$

Chemical Name	CAS No.	Weight-%
Cupric Acetate Monohydrate	6046-93-1	100

4. FIRST AID MEASURES

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician if irritation occurs. Continue rinsing eyes during transport to hospital.

Skin contact

Take off contaminated clothing. Wash off immediately with soap and plenty of water. Call a

physician.

Inhalation Move victim to fresh air. If not breathing, give artificial respiration. Call a physician.

Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth. Call a physician.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

Carbon oxides, copper oxides.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For emergency responders Reactions with incompatibles may pose explosion hazard. Known or anticipated hazardous products of combustion: May produce oxides of carbon and the contaminated metal.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and material for containment and cleaning up

Methods for containment Keep in suitable, closed containers for disposal.

Methods for cleaning up Pick up and arrange disposal without creating dust. Sweep up and shovel. Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Avoid generation of dust. Further processing of solid material may result in the formation of combustible dusts. The potential for

combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Cupric Acetate Monohydrate 6046-93-1	TWA: 1 mg/m ³ Cu dust and mist	-	IDLH: 100 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ Cu dust and mist

Appropriate engineering controls

Engineering Controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the work day.

Individual protection measures, such as personal protective equipment

Eye/face protection Face shield and safety glasses.

Skin and body protection Wear protective gloves and clean body-covering clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid	Odor	Odorless
Appearance	Dark green crystalline solid	Odor threshold	No information available
Color	Greenish-blue		
Property	Values	Remarks • Method	
pH	5.2-5.5 at 20 g/l at 20C (68F)		
Melting point / freezing point	115 °C / 239 °F		
Boiling point / boiling range	240 °C		
Flash point	No information available		
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limit in Air			
Upper flammability limit:	No information available		
Lower flammability limit:	No information available		
Vapor pressure	No information available		
Vapor density	No information available		
Relative density	1.88g/cm ³ at 20C (68F)		
Water solubility	138g parts/ 100 parts water @ 0C		
Solubility in other solvents	No information available		
Partition coefficient	No information available		
Autoignition temperature	No information available		
Decomposition temperature	No information available		
Kinematic viscosity	No information available		

Dynamic viscosity No information available
Explosive properties No information available
Oxidizing properties No information available

Other Information

Softening point No information available
Molecular weight 199.65
VOC Content (%) No information available
Density No information available
Bulk density 1000 kg/m³

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

Oxidizing agents.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Skin contact Causes burns.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Cupric Acetate Monohydrate 6046-93-1	= 710 mg/kg (Rat)	-	-

Information on toxicological effects**Symptoms**

Symptoms of systematic Copper poisoning may include: capillary damage, headache, cold sweat, weak pulse, and kidney and liver damage, central nervous system excitation followed by depression, jaundice, convulsions, paralysis, and coma. Death may occur from shock or renal failure. Chronic copper poisoning is typified by hepatic cirrhosis, brain damage and demyelination, kidney defects, and copper deposition in the cornea as exemplified by humans with Wilson's disease. It has also been reported that copper poisoning has lead to hemolytic anemia and accelerates arteriosclerosis. Cough, shortness of breath, headache, nausea, vomiting, gastrointestinal disturbance, blood disorders, and liver injury may occur. Damage to the lungs.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Carcinogenicity****Numerical measures of toxicity - Product Information**

12. ECOLOGICAL INFORMATION

This material is expected to be very toxic to aquatic life.

Ecotoxicity

This material is expected to significantly bioaccumulate. This material has an experimentally-determined bioconcentration factor of greater than 100.

100% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulation

Other adverse effects

An environment hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long last effects.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container.

Chemical Name	California Hazardous Waste Status
Cupric Acetate Monohydrate 6046-93-1	Toxic

14. TRANSPORT INFORMATION

DOT

Regulated
 UN/ID no. UN3077
 Proper shipping name Environmentally Hazardous Substances, Solid, N.O.S. (Cupric Acetate, Hydrate, ACS)
 Hazard Class 9
 Packing Group III
 Reportable Quantity (RQ) 100 lbs (45.4 kg)
 Marine pollutant This material is expected to be very toxic to aquatic life.

TDG

Regulated
 UN/ID no. UN3077
 Proper shipping name Environmentally Hazardous Substances, Solid, N.O.S. (Cupric Acetate, Hydrate, ACS)
 Hazard Class 9
 Packing Group III
 Marine pollutant This product contains a chemical which is listed as a marine pollutant according to TDG.

MEX

Regulated
 UN/ID no. UN3077
 Proper shipping name Environmentally Hazardous Substances, Solid, N.O.S. (Cupric Acetate, Hydrate, ACS)
 Hazard Class 9
 Packing Group III

ICAO (air)

Regulated
 UN/ID no. UN3077
 Proper shipping name Environmentally Hazardous Substances, Solid, N.O.S. (Cupric Acetate, Hydrate, ACS)
 Hazard Class 9
 Packing Group III

IATA

Regulated
 UN/ID no. UN1377
 Proper shipping name Environmentally Hazardous Substances, Solid, N.O.S. (Cupric Acetate, Hydrate, ACS)
 Hazard Class 9

Packing Group	III
IMDG	Regulated
UN/ID no.	UN3077
Proper shipping name	Environmentally Hazardous Substances, Solid, N.O.S. (Cupric Acetate, Hydrate, ACS)
Hazard Class	9
Packing Group	III
Marine pollutant	This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO
RID	Regulated
UN/ID no.	UN3077
Proper shipping name	Environmentally Hazardous Substances, Solid, N.O.S. (Cupric Acetate, Hydrate, ACS)
Hazard Class	9
Packing Group	III
ADR	Regulated
UN/ID no.	UN3077
Proper shipping name	Environmentally Hazardous Substances, Solid, N.O.S. (Cupric Acetate, Hydrate, ACS)
Hazard Class	9
Packing Group	III
ADN	Regulated
UN Number	UN3077
Proper shipping name	Environmentally Hazardous Substances, Solid, N.O.S. (Cupric Acetate, Hydrate, ACS)
Hazard Class	9
Packing Group	III

15. REGULATORY INFORMATION

International Inventories

TSCA	Does not comply
DSL/NDL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Complies
KECL	Does not comply
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - 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

Chemical Name	SARA 313 - Threshold Values %
Cupric Acetate Monohydrate - 6046-93-1	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

Chemical Name	CWA - Reportable	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous

	Quantities			Substances
Cupric Acetate Monohydrate 6046-93-1	-	X	-	-

CERCLA**US State Regulations****California Proposition 65****U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Cupric Acetate Monohydrate 6046-93-1	X	-	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health hazards 2	Flammability 0	Instability 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 2	Flammability 0	Physical hazards 0	Personal protection X

Issue Date 10-Apr-2015

Revision Date 04-Jun-2015

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