

Issue Date 09-Apr-2015

Revision Date 04-Jun-2015

Version 2

1. IDENTIFICATION

Product identifier

Product Name Cupric Nitrate, Hemipentahydrate, ACS

Other means of identification

Product Code 1600

UN/ID no. UN1477

Synonyms Cupric nitrate hemipentahydrate, nitric acid, copper (2+) salt, hydrate (2:5), copper II nitrate hemihydrate.

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)

Label elements

Emergency Overview

Danger

Hazard statements

Harmful if swallowed

May cause cancer



DANGER! STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.

Appearance Blue crystals	Physical state Solid	Odor Odorless
---------------------------------	-----------------------------	----------------------

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Not applicable

Unknown acute toxicity 100% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Synonyms Cupric nitrate hemipentahydrate, nitric acid, copper (2+) salt, hydrate (2:5), copper II nitrate hemihydrate.

Formula $\text{Cu}(\text{NO}_3)_2 \cdot 2.5\text{H}_2\text{O}$

Chemical Name	CAS No.	Weight-%
Cupric Nitrate hemipentahydrate	19004-19-14	100

4. FIRST AID MEASURES

Description of first aid measures

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician if irritation occurs.

Skin contact Wipe off excess material from skin. Immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Call a physician.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. Administer oxygen if breathing is difficult. Call a physician.

Ingestion Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician immediately.

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

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water or water spray may be used in the early stages of fire. Foam or dry chemical may also be used.

Small Fire Water or water spray may be used in the EARLY STAGES of fire.

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

Specific hazards arising from the chemical

No information available.

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. Contact with oxidizable substances may cause extremely violent combustion.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Wear appropriate personal equipment.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

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. Use a clean up method that does not generate dust.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

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

Incompatible materials Paper, wood, organic materials, ether, potassium ferrocyanide, tin, acetylene, hydrazine, ammonia+ potassium amide, acetic anhydride, sodium hypobromite, nitromethanes, and any readily oxidizable substance.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure 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	Use chemical safety goggles and/or full face shield. Maintain eye wash fountain and quick-drench facilities in work area.
Skin and body protection	Wear protective gloves and protective 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	Blue crystals	Odor threshold	No information available
Color	blue		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point / freezing point	115 °C / 239 °F	
Boiling point / boiling range	170 °C / 338 °F	
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	No information available	
Water solubility	No information available	
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	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization	Will not occur.
---------------------------------	-----------------

Conditions to avoid

Extremes of temperature and direct sunlight. Incompatible materials.

Incompatible materials

Paper, wood, organic materials, ether, potassium ferrocyanide, tin, acetylene, hydrazine, ammonia+ potassium amide, acetic anhydride, sodium hypobromite, nitromethanes, and any readily oxidizable substance.

Hazardous Decomposition Products

Oxides of nitrogen and toxic metal fumes may form when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	No data available
Inhalation	No data available.
Eye contact	No data available.
Skin contact	No data available.
Ingestion	No data available.

Information on toxicological effects

Symptoms No information available.

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

Germ cell mutagenicity

Carcinogenicity

Reproductive toxicity

STOT - single exposure

STOT - repeated exposure

Aspiration hazard

Numerical measures of toxicity - Product Information

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

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**Bioaccumulation**

Expected to significantly bioaccumulate.

Other adverse effects No information available

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.

14. TRANSPORT INFORMATION

<u>DOT</u>	Regulated
UN/ID no.	UN1477
Proper shipping name	Nitrates, Inorganic, N.O.S. (Cupric Nitrate, Hydrate ACS)
Hazard Class	5.1
Packing Group	II
Reportable Quantity (RQ)	100 lbs (45.4 kg)
Marine pollutant	This material is expected to be very toxic to aquatic life.
<u>TDG</u>	Regulated
UN/ID no.	UN1477
Proper shipping name	Nitrates, Inorganic, N.O.S. (Cupric Nitrate, Hydrate ACS)
Hazard Class	5.1
Packing Group	II
Marine pollutant	This product contains a chemical which is listed as a marine pollutant according to TDG.
<u>MEX</u>	Regulated
UN/ID no.	UN1477
Proper shipping name	Nitrates, Inorganic, N.O.S. (Cupric Nitrate, Hydrate ACS)
Hazard Class	5.1
Packing Group	II
<u>ICAO (air)</u>	Regulated
UN/ID no.	UN1477
Proper shipping name	Nitrates, Inorganic, N.O.S. (Cupric Nitrate, Hydrate ACS)
Hazard Class	5.1
Packing Group	II
<u>IATA</u>	Regulated
UN/ID no.	UN1477
Proper shipping name	Nitrates, Inorganic, N.O.S. (Cupric Nitrate, Hydrate ACS)
Hazard Class	5.1
Packing Group	II
<u>IMDG</u>	Regulated
UN/ID no.	UN1477
Proper shipping name	Nitrates, Inorganic, N.O.S. (Cupric Nitrate, Hydrate ACS)
Hazard Class	5.1
Packing Group	II
Marine pollutant	This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO
<u>RID</u>	Regulated
UN/ID no.	UN1477
Proper shipping name	Nitrates, Inorganic, N.O.S. (Cupric Nitrate, Hydrate ACS)
Hazard Class	5.1
Packing Group	II
<u>ADR</u>	Regulated
UN/ID no.	UN1477
Proper shipping name	Nitrates, Inorganic, N.O.S. (Cupric Nitrate, Hydrate ACS)
Hazard Class	5.1
Packing Group	II
<u>ADN</u>	Regulated

UN Number	UN1477
Proper shipping name	Nitrates, Inorganic, N.O.S. (Cupric Nitrate, Hydrate ACS)
Hazard Class	5.1
Packing Group	II

15. REGULATORY INFORMATION

International Inventories

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

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

SARA 311/312 Hazard Categories

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

CWA (Clean Water Act)

CERCLA

US State Regulations

California Proposition 65

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

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

NFPA	Health hazards 2	Flammability 0	Instability 2	Physical and Chemical Properties -
HMIS	Health hazards 2	Flammability 0	Physical hazards 2	Personal protection X
Issue Date	09-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