

Safety Data Sheet

Cupric Nitrate, Reagent Grade

SECTION 1 : Identification of the substance/mixture

Product name : Cupric Nitrate, Reagent Grade

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25282

Recommended uses of the product and uses restrictions on use:

SECTION 2 : Hazards identification

Classification of the substance or mixture:



Oxidizing

Oxidizing solids, category 2



Corrosive

Serious eye damage, category 1



Irritant

Acute toxicity (oral, dermal, inhalation), category 4

Skin irritation, category 2



Environmentally Damaging

Acute hazards to the aquatic environment, category 1

Oxidizing solids (Category 2)

Acute toxicity , Oral (Category 4)

Skin irritation (Category 2)

Serious eye damage (Category 1)

Acute aquatic toxicity (Category 1)

Signal word :Danger

Hazard statements:

May intensify fire; oxidizer

Harmful if swallowed

Causes skin irritation

Causes serious eye damage

Very toxic to aquatic life

Precautionary statements:

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Wash skin thoroughly after handling

Keep away from heat/sparks/open flames/hot surfaces. No smoking

Keep/Store away from clothing/combustible materials

Take any precaution to avoid mixing with combustibles

Avoid release to the environment

Do not eat, drink or smoke when using this product

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

Keep only in original container

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

In case of fire: Use agents recommended in section 5 for extinction

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

Collect spillage

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

IF ON SKIN: Wash with soap and water

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.

Continue rinsing

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

Immediately call a POISON CENTER or doctor/physician

Rinse mouth

Dispose of contents and container as instructed in Section 13

Combustible Dust Hazard: :

May form combustible dust concentrations in air (during processing).

Other Non-GHS Classification:

WHMIS



NFPA/HMIS

Health	3
Flammability	0
Physical Hazard	2
Personal Protection	X



RATINGS (0-4)

NFPA SCALE (0-4) HMIS

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SECTION 3 : Composition/information on ingredients

Ingredients:		
CAS 10031-43-3	Cupric Nitrate	100 %
Percentages are by weight		

SECTION 4 : First aid measures

Description of first aid measures

After inhalation: Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical advice if discomfort or irritation persists. If breathing difficult, give oxygen. **After skin contact:** Wash affected area with soap and water. Rinse thoroughly. Seek medical attention if irritation, discomfort or vomiting persists.

After eye contact: Protect unexposed eye. Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lens(es) if able to do so during rinsing. Seek medical attention if irritation persists or if concerned.

After swallowing: Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Seek medical attention if irritation, discomfort or vomiting persists.

Most important symptoms and effects, both acute and delayed:

Irritation, Causes severe respiratory and digestive tract irritation. May cause severe eye and skin irritation with possible burns. May cause ulceration of the conjunctiva and cornea. May cause severe irritation and possible burns. May cause dermatitis and skin discoloration. May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. May cause hemorrhaging of the digestive tract. May cause severe irritation of the upper respiratory tract with pain, burns, and inflammation. May cause methemoglobinemia, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), convulsions, tachycardia, dyspnea (labored breathing), and death. May cause ulceration and perforation of the nasal septum if inhaled in excessive quantities. ;Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. May cause liver and kidney damage. Individuals with Wilson's disease are unable to metabolize copper. Thus, copper accumulates in various tissues and may result in liver, kidney, and brain damage.

Indication of any immediate medical attention and special treatment needed: If seeking medical attention, provide SDS document to physician. The use of d-Penicillamine as a chelating agent should be determined by qualified medical personnel.

SECTION 5 : Firefighting measures

Extinguishing media

Suitable extinguishing agents: If in laboratory setting, follow laboratory fire suppression procedures. Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition **For safety**

reasons unsuitable extinguishing agents:

Special hazards arising from the substance or mixture:

Combustion products may include carbon oxides or other toxic vapors. Thermal decomposition can lead to release of irritating gases and vapors. Avoid generating dust; fine dust dispersed in air in sufficient

concentrations, and in the presence of an ignition source is a potential dust explosion hazard. **Advice for firefighters:**

Protective equipment: Use NIOSH-approved respiratory protection/breathing apparatus. **Additional information (precautions):** Move product containers away from fire or keep cool with water spray as a protective measure, where feasible. Use spark-proof tools and explosion-proof equipment.

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SECTION 6 : Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Wear protective equipment. Transfer to a disposal or recovery container. Ensure adequate ventilation. Stop the spill, if possible. Contain spilled material by diking or using inert absorbent.

Environmental precautions:

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13

Methods and material for containment and cleaning up:

If in a laboratory setting, follow Chemical Hygiene Plan procedures. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation. Place under an inert atmosphere.

Reference to other sections:

SECTION 7 : Handling and storage

Precautions for safe handling:

Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Contents may develop pressure upon prolonged storage. Keep away from heat, sparks and flame. Avoid contact with clothing and other combustible materials. Do not get on skin or in eyes. Do not ingest or inhale. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Do not eat, drink, smoke, or use personal products when handling chemical substances.

Conditions for safe storage, including any incompatibilities:

Store away from foodstuffs. Keep away from heat, sparks, and flame. Do not store near combustible materials. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store locked up.

SECTION 8 : Exposure controls/personal protection



Control Parameters: 10031-43-3, Copper(II) nitrate trihydrate, 1.00 mg/m³ TWA, USA NIOSH

Appropriate Engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor

or dusts (total/respirable) below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Use under a fume hood. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

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Respiratory protection: Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed. For spills, respiratory protection may be advisable.

Protection of skin: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation being used/handled. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Eye protection: Safety glasses with side shields or goggles.

General hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases/fumes/dust/mist/vapor/aerosols. Avoid contact with the eyes and skin.

SECTION 9 : Physical and chemical properties

Appearance (physical state,color):	Blue solid	Explosion limit lower: Explosion limit upper:	Not Determined Not Determined
Odor:	Not Determined	Vapor pressure:	Not Determined
Odor threshold:	Not Determined	Vapor density:	8.33
pH-value:	4.0 for 0.2M soln.	Relative density:	2.05
Melting/Freezing point:	114.5°C (238.1°F)	Solubilities:	Soluble
Boiling point/Boiling range:	Not Determined	Partition coefficient (n octanol/water):	Not Determined
Flash point (closed cup):	Not Determined	Auto/Self-ignition temperature:	Not Determined
Evaporation rate:	Not Determined	Decomposition temperature:	Not Determined
Flammability (solid,gaseous):	Not Determined	Viscosity:	a. Kinematic:Not Determined b. Dynamic: Not Determined
Density: Not Determined Specific Gravity: :2.05 (Water = 1)			

SECTION 10 : Stability and reactivity

Reactivity:No data available

Chemical stability:No decomposition if used and stored according to specifications.

Possible hazardous reactions:

Conditions to avoid:Incompatible materials, combustible materials, reducing agents, organic matter **Incompatible materials:**Ignites paper spontaneously in the presence of moisture.Reducing agents, combustible materials, potassium ferrocyanide, ether, tin.Organic materials, Powdered metals

Hazardous decomposition products:Nitrogen oxides (NOx), Copper oxides. Irritating and toxic fumes and gases, copper fumes.

SECTION 11 : Toxicological information**Cupric Nitrate, Reagent Grade**

Acute Toxicity:		
Oral:	ECHA	LD50 Oral - Rat - 940 mg/kg
Chronic Toxicity: No additional information.		
Corrosion Irritation: No additional information.		
Sensitization:	No additional information.	
Single Target Organ (STOT):	No additional information.	
Numerical Measures:	No additional information.	
Carcinogenicity:	No additional information.	
Mutagenicity:	No additional information.	
Reproductive Toxicity:	No additional information.	

SECTION 12 : Ecological information

Ecotoxicity Persistence and degradability: Readily degradable in the environment.

Bioaccumulative potential:

Mobility in soil:

Other adverse effects:

SECTION 13 : Disposal considerations

Waste disposal recommendations:

Product/containers must not be disposed together with household garbage. Do not allow product to reach sewage system or open water.It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Consult federal state/ provincial and

local regulations regarding the proper disposal of waste material that may incorporate some amount of this product.

SECTION 14 : Transport information

UN-Number

1477

UN proper shipping name

NITRATES, INORGANIC, N.O.S. (Cupric Nitrate)

Transport hazard class(es)



Class:

5.1 Oxidizing substances

Packing group:II

Environmental hazard:

Transport in bulk:

Special precautions for user:

SECTION 15 : Regulatory information

United States (USA)

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SARA Section 311/312 (Specific toxic chemical listings):

Reactive, Acute, Chronic

SARA Section 313 (Specific toxic chemical listings):

10031-43-3 Cupric Nitrate

10031-43-3 Copper compounds (N100)

RCRA (hazardous waste code):

None of the ingredients is listed

TSCA (Toxic Substances Control Act):

10031-43-3 Not listed: Cupric Nitrate

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

10031-43-3 Copper compounds No RQ assigned

10031-43-3 Cupric nitrate (3251-23-8) 100 lbs

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed

Chemicals known to cause developmental toxicity:

None of the ingredients is listed

Canada

Canadian Domestic Substances List (DSL):

10031-43-3 Not listed: Cupric Nitrate

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

None of the ingredients is listed

Canadian NPRI Ingredient Disclosure list (limit 1%):

None of the ingredients is listed

SECTION 16 : Other information

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. Note: 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.

GHS Full Text Phrases:

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

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PNEC: Predicted No-Effect Concentration (REACH)

CFR: Code of Federal Regulations (USA)

SARA: Superfund Amendments and Reauthorization Act (USA)
RCRA: Resource Conservation and Recovery Act (USA)

TSCA: Toxic Substances Control Act (USA)

NPRI: National Pollutant Release Inventory (Canada)

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)