Printing date 07/31/2016

Reviewed on 07/31/2016

Page 1/7

1 Identification

- · Product name
- · Trade name: <u>Copper(II)</u> oxalate hemihydrate
- Item number: 93-2942
- CAS Number: 814-91-5
- \cdot Details of the supplier of the safety data sheet

 Manufacturer/Supplier: Strem Chemicals, Inc.
7 Mulliken Way NEWBURYPORT, MA 01950 USA info@strem.com

· Information department: Technical Department

• Emergency telephone number: EMERGENCY: CHEMTREC: + 1 (800) 424-9300 During normal opening times: +1 (978) 499-1600

2 Hazard(s) identification

· Classification of the substance or mixture

- The substance is not classified according to the Globally Harmonized System (GHS).
- · Label elements
- · GHS label elements not applicable
- · Hazard pictograms not applicable
- · Signal word not applicable
- · Hazard statements not applicable
- · Precautionary statements

P262Do not get in eyes, on skin, or on clothing.P280Wear protective gloves/protective clothing.

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

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

- *P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.*
- P403+P233Store in a well-ventilated place. Keep container tightly closed.P501Dispose of contents/container in accordance with local/regional/national/international
- r sol Dispose of contents/container in accordance with local/regional/national/international regulations.

• Classification system:

· NFPA ratings (scale 0 - 4)



· HMIS-ratings (scale 0 - 4)

HEALTH2Health = 2FIRE0Fire = 0REACTIVITY0Reactivity = 0

· Other hazards

- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.

(Contd. on page 2)

Printing date 07/31/2016

Reviewed on 07/31/2016

Trade name: Copper(II) oxalate hemihydrate

· **vPvB:** Not applicable.

(Contd. of page 1)

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description
- 814-91-5 Copper(II) oxalate hemihydrate

4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:
- CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions: No special measures required.
- Methods and material for containment and cleaning up:
- Dispose contaminated material as waste according to item 13.
- · Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7 Handling and storage

- · Handling:
- · Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.

(Contd. on page 3)



US

Printing date 07/31/2016

Reviewed on 07/31/2016

Trade name: Copper(II) oxalate hemihydrate

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.

- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:
- The usual precautionary measures for handling chemicals should be followed.
- · Breathing equipment: Not required.
- Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation • Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Safety glasses

Information on basic physical and General Information	chemical properties	
Appearance:		
Form:	Powder	
Color:	Blue	
Odor:	Odorless	
Odor threshold:	Not determined.	
pH-value:	Not applicable.	
Change in condition Melting point/Melting range:	no data °C	
Boiling point/Boiling range:	no data °C	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Product is not flammable	

Printing date 07/31/2016

Reviewed on 07/31/2016

Trade name: Copper(II) oxalate hemihydrate

	(Contd. of	page
Ignition temperature:		
Decomposition temperature:	Not determined.	
Auto igniting:	Not determined.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure:	no data hPa	
Density:	Not determined.	
Relative density	Not determined.	
Vapor density	Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with		
Water:	Insoluble.	
Partition coefficient (n-octanol/wa	ter): Not determined.	
Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
Solvent content:		
Organic solvents:	0.0 %	
VOC content:	0.0 g/l / 0.00 lb/gl	
Solids content:	100.0 %	
Other information	No further relevant information available.	

10 Stability and reactivity

· Reactivity No further relevant information available.

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- Acute toxicity:
- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- \cdot Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

(Contd. on page 5)



[·] Chemical stability

US

Printing date 07/31/2016

CHEMICALS, INC

Reviewed on 07/31/2016

(Contd. of page 4)

Trade name: Copper(II) oxalate hemihydrate

The substance is not subject to classification.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Not known to be hazardous to water.
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

· Waste treatment methods

· Recommendation: Disposal must be made according to official regulations.

· Uncleaned packagings:

· Recommendation: Disposal must be made according to official regulations.

· UN-Number		
· DOT, ADN, IMDG, IATA	not regulated	
· UN proper shipping name		
· DOT, ADN, IMDG, IATA	not regulated	
Transport hazard class(es)		
· DOT, ADN, IMDG, IATA		
· Class	not regulated	
Packing group		
· DOT, IMDG, IATA	not regulated	
Environmental hazards:		
• Marine pollutant:	No	

Printing date 07/31/2016

CHEMICALS.

Reviewed on 07/31/2016

Trade name:	Copper(II)	oxalate	hemihydrate
-------------	------------	---------	-------------

		(Contd. of page 5)
· Special precautions for user	Not applicable.	
• Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.	
· UN ''Model Regulation'':	not regulated	

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture · Sara
- · Section 355 (extremely hazardous substances):
- Substance is not listed.
- · Section 313 (Specific toxic chemical listings):
- Substance is not listed.
- · TSCA (Toxic Substances Control Act):
- Substance is listed.
- · Proposition 65
- Chemicals known to cause cancer:
- Substance is not listed.
- · Chemicals known to cause reproductive toxicity for females:
- Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males:
- Substance is not listed.
- · Chemicals known to cause developmental toxicity:
- Substance is not listed.
- · Carcinogenic categories
- · EPA (Environmental Protection Agency)
- Substance is not listed.
- · TLV (Threshold Limit Value established by ACGIH)
- Substance is not listed.
- · NIOSH-Ca (National Institute for Occupational Safety and Health)
- Substance is not listed.
- · GHS label elements not applicable
- · Hazard pictograms not applicable
- · Signal word not applicable
- Hazard statements not applicable
- · Precautionary statements
- P262 Do not get in eyes, on skin, or on clothing.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- *P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*

(Contd. on page 7)

- US

Printing date 07/31/2016

CHEMICALS, INC

Reviewed on 07/31/2016

Trade name: Copper(II) oxalate hemihydrate

(Contd. of page 6)

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Technical Department.
- · Contact: Technical Director

· Date of preparation / last revision 07/31/2016 / -· Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association 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) VOC: Volatile Organic Compounds (USA, EU) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit **REL:** Recommended Exposure Limit