

## Safety Data Sheet **CNI COPPER 5%**

**SDS Number:** 804 **Revision:** January 5, 2018

### Section 1 • IDENTIFICATION

**Product Name** CNI Copper 5%  
*Other Identification* Liquid Copper Lignosulfonate Fertilizer solution  
*Product Form* Mixture

**Recommended Use** Agriculture Industry – Fertilizer use

**Manufacturer**  
*Company Name* CNI INC  
*Address* PO BOX 3706, ALBANY, GA ,31706, United States  
*Telephone* (229) 883-5538  
*Website* www.cniag.com

**Emergency Contacts** CNI, Inc. (229) 883-5538  
 CHEMTREC (800) 424-9300 (Domestic)  
 (703) 527-3887 (International)

### Section 2 • HAZARD(S) IDENTIFICATION

#### Classification of the Substance or Mixture

##### Classification (GHS-US)

Eye Irrit. 2A H319  
 Skin Sens. 2 H315  
 Carc. 2 H351  
 STOT RE 2 H373  
 Aquatic Acute 2 H401  
 Aquatic Chronic 3 H412  
 Full text of H-phrases: see section 16

#### Label Elements

##### GHS-US Labeling

##### Hazard Pictograms (GHS-US)



##### Signal Word (GHS-US)

: Warning

##### Hazard Statements (GHS-US)

: H315- Causes skin irritation  
 H320- Causes eye irritation  
 H335- May cause respiratory irritation

#### Precautionary Statements (GHS-US)

: P201 - Obtain special instructions before use.  
 P202 - Do not handle until all safety precautions have been read and understood.  
 P260 - Do not breathe vapors, mist, or spray.  
 P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.  
 P272 - Contaminated work clothing must not be allowed out of the workplace.  
 P273 - Avoid release to the environment.  
 P280 - Wear protective gloves, protective clothing, and eye protection.  
 P302+P352 - If on skin: Wash with plenty of water.  
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308+P313 - If exposed or concerned: Get medical advice/attention.  
 P314 - Get medical advice/attention if you feel unwell.  
 P321 - Specific treatment (see section 4 on this SDS).  
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
 P337+P313 - If eye irritation persists: Get medical advice/attention.  
 P362+P364 - Take off contaminated clothing and wash it before reuse.  
 P405 - Store locked up.  
 P501 - Dispose of contents/container in accordance with local, regional, national, and international

#### Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

#### Unknown Acute Toxicity (GHS-US)

No data available

### Section 3 • COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance

Not applicable

#### Mixture

Name	Product Identifier	%	Classification (GHS-US)
Copper Sulfate	13578-36-2	Proprietary	

### Section 4 • FIRST-AID MEASURES

#### Inhalation

Remove victim from contaminated atmosphere. If breathing is labored, administer oxygen. If breathing has ceased, clear airway and start CPR. Obtain medical attention.

#### Skin Contact

Immediately flush with large quantities of water. Remove contaminated clothing under a safety shower. Continue rinsing. Obtain medical attention if irritation occurs.

**Eye Contact**

Immediately flush with large quantities of water for 15 minutes. Hold eyelids apart during irrigation to ensure thorough flushing of the entire area of the eye and lids. Obtain medical attention if irritation occurs.

**Ingestion**

If victim is conscious, give 2 to 4 glasses of water and induce vomiting by touching finger to back of throat. Obtain medical attention.

**General Information**

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

## Section 5 • FIRE-FIGHTING MEASURES

**Suitable extinguishing**

Not flammable, use media suitable for combustibles involved in fire.

**Unsuitable extinguishing**

None known.

**Specific hazards arising from the chemical**

*Fire Hazard:* Not considered flammable but may burn at high temperatures.

*Explosion Hazard:* Product is not explosive.

*Reactivity:* May react violently with oxidants, causing fire and explosion hazard.

**Special protective equipment and precautions for firefighters**

Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

**Fire-fighting equipment/instructions**

Use water spray or fog for cooling exposed containers. Do not breathe fumes from fires or vapors from decomposition. Do not allow run-off from firefighting to enter drains or water courses.

**Specific methods**

Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**

Do not enter fire area without proper protective equipment, including respiratory protection.

## Section 6 • ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment specified in Section 8.

Isolate the hazard area and deny entry to unnecessary, untrained and unprotected personnel.

**Methods and materials for containment and cleaning up**

*Large Spills*

Shut off release if safe to do so. Dike spill area with earth, sand or other inert absorbents to prevent runoff into surface waterways (potential aquatic toxicity), storm drains or sewers.

Recover as much of the spilled product as possible using portable pump and hoses. Use recovered material as originally intended or dispose of as a chemical waste. Treat remaining material as a small release (above).

*Small Spills*

Confine and absorb small releases with sand, earth or other inert absorbents.

Shovel up the absorbed material and place in drums for disposal as a chemical waste or recycle as a fertilizer as the original product was intended.

**Environmental precautions**

Keep out of “waters of the United States” because of potential aquatic toxicity. This product is a non-hazardous liquid fertilizer.

## Section 7 • *HANDELING & STORAGE*

**Precautions for safe handling**

Avoid contact with eyes. Use only in a well-ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated contact with the skin.

**Conditions for safe storage, including any incompatibilities**

Store in well-ventilated areas. Do not store combustibles in the area of storage vessels. Keep away from any sources of heat or flame. Store totes and smaller containers out of direct sunlight at moderate temperatures. (See Section 10.5 for materials of construction.)

## Section 8 • *EXPOSURE CONTROLS/PERSONAL PROTECTION*

**Control Parameters**

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), or OSHA (PEL).

**Proprietary ingredient 6 (Proprietary)**

<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (inhalable fraction and vapor)
<b>USA ACGIH</b>	ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route, Confirmed Animal Carcinogen with Unknown Relevance to Humans
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL (TWA) (ppm)	3 ppm

**Proprietary glycol (Proprietary)**

<b>USA ACGIH</b>	ACGIH Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup> (aerosol only)
<b>USA ACGIH</b>	ACGIH chemical category	Not Classifiable as a Human Carcinogen

**Proprietary alcohol (Proprietary)**

<b>USA ACGIH</b>	ACGIH STEL (ppm)	1000 ppm
<b>USA ACGIH</b>	ACGIH chemical category	Confirmed Animal Carcinogen with Unknown Relevance to Humans
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL (TWA) (ppm)	1000 ppm
<b>USA IDLH</b>	US IDLH (ppm)	3300 ppm (10% LEL)
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (TWA) (ppm)	1000 ppm

**Exposure Controls**

**Appropriate Engineering Controls** : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

**Personal Protective Equipment** : Protective goggles. Gloves. Protective clothing.  
Insufficient ventilation: wear respiratory protection.

**Materials for Protective Clothing** : Chemically resistant  
materials and fabrics. **Hand Protection** : Wear chemically  
resistant protective gloves. **Eye Protection** : Chemical safety goggles.

**Skin and Body Protection** : Wear suitable protective clothing.

**Respiratory Protection** : If exposure limits are exceeded or irritation is experienced,

## Section 9 • PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance</b>	Brown, liquid.
<b>Odor</b>	Lignon odor
<b>Odor threshold</b>	N/A
<b>pH</b>	N/A
<b>Melting point/freezing point</b>	Salt Out Temperature <5°F (<-15°C) (Typical)
<b>Initial boiling point and boiling range</b>	~222°F (106°C)
<b>Flash point</b>	~222°F (106°C)
<b>Evaporation rate</b>	N/A
<b>Flammability (solid, gas)</b>	N/A
<b>Upper/lower flammability or explosive limits</b>	
<i>Flammability limit - lower (%)</i>	N/A
<i>Flammability limit - upper (%)</i>	N/A
Explosive limit - lower (%)	N/A
Explosive limit - upper (%)	N/A
<b>Vapor density</b>	N/A
<b>Relative density</b>	1.18 (11.10 lbs/gal) (Typical)
<b>Specific gravity</b>	N/A
<b>Solubility(ies)</b>	
<i>Solubility (water)</i>	Complete
<b>Partition coefficient (n-octanol/water)</b>	N/A
<b>Auto-ignition temperature</b>	N/A
<b>Decomposition temperature</b>	N/A
<b>Viscosity</b>	N/A

## Section 10 • STABILITY & REACTIVITY

<b>Reactivity</b>	Avoid interaction with heat (flames), oxidizers or acids.
<b>Chemical stability</b>	This is a stable product under normal (ambient) temperature and pressure conditions.
<b>Possibility of hazardous reactions</b>	None known.
<b>Conditions to avoid</b>	Direct sunlight. Extremely high or low temperatures. Sources of ignition. Incompatible materials.
<b>Incompatible materials</b>	Strong oxidizers. This product is not compatible with lead or mercury or their alloys. These materials of construction should not be used in handling systems or storage containers for this product
<b>Hazardous decomposition products</b>	None known.

## Section 11 • TOXICOLOGICAL INFORMATION

### Information On Toxicological Effects

**Acute Toxicity:** Not classified

**Extend 97**

**LD50 Oral Rat** > 5050

**LD50 Dermal Rabbit** > 2020 mg/kg

**Proprietary ingredient 2 (Proprietary)**

ATE (Oral)	500.00 mg/kg body weight
ATE (Gases)	100.00 ppmV/4h
ATE (Vapors)	0.50 mg/l/4h
ATE (Dust/Mist)	0.05 mg/l/4h

**Proprietary ingredient 5 (Proprietary)**

LD50 Oral Rat	12400 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg

**Proprietary ingredient 6 (Proprietary)**

LD50 Oral Rat	1820 mg/kg
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**Proprietary glycol (Proprietary)**

LD50 Oral Rat	4700 mg/kg
LD50 Dermal Rat	10600 mg/kg
ATE (Oral)	500.00 mg/kg body weight
ATE (Dermal)	10,600.00 mg/kg body weight

**Proprietary alcohol (Proprietary)**

LD50 Oral Rat	4710 mg/kg
LD50 Dermal Rabbit	4059 mg/kg
LC50 Inhalation Rat	72.6 mg/l/4h (Exposure time: 4 h)

**Proprietary ingredient 3 (Proprietary)**

LD50 Oral Rat	1310 mg/kg
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**Skin Corrosion/Irritation:** Not classified.

**pH:** 6.93

**Serious Eye Damage/Irritation:** Causes serious eye irritation. Derived from a read across of primary eye irritation study in White New Zealand rabbits. Effects were fully reversible within 21 days, but elicited primary irritation in 2 of 3 tested animals (Pesticide Assessment Guidelines, Subdivision F, Hazard Evaluation: Series 81-5, EPA 540/9-84-014).

**Respiratory or Skin Sensitization:** May cause an allergic skin reaction.

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** Suspected of causing cancer.

**Proprietary ingredient 5 (Proprietary)**

IARC group	2B
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

**Proprietary ingredient 6 (Proprietary)**

IARC group	2B
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

**Proprietary alcohol (Proprietary)**

IARC group	3
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**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** May cause damage to organs through prolonged or repeated exposure.

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** May cause irritation to the respiratory tract.

**Symptoms/Injuries After Skin Contact:** Causes skin irritation. May cause an allergic skin reaction.

**Symptoms/Injuries After Eye Contact:** Causes serious eye irritation. Redness, pain, swelling, itching, burning, tearing, and blurred vision.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.

## Section 12 • ECOLOGICAL INFORMATION

### Toxicity

**Ecology - General** : Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

### Proprietary ingredient (Proprietary)

**NOEC chronic fish** 0.5 mg/l

### Proprietary ingredient 5 (Proprietary)

**LC50 Fish 1** 3.6 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])

**EC50 Daphnia 1** 2.15 mg/l (Exposure time: 48 h - Species: Daphnia pulex [Static])

**ErC50 (algae)** 2.2 mg/l (Exposure time: 72 h - Species: Scenedesmus subspicatus)

### Proprietary ingredient 6 (Proprietary)

**LC50 Fish 1** 4460 (4460 - 4980) mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

**EC50 Daphnia 1** 55 mg/l (Exposure time: 48 h - Species: Daphnia magna)

**LC 50 Fish 2** 1200 (1200 - 1580) mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

**EC50 Other Aquatic Organisms 2** 2.1 (2.1 - 2.3) mg/l (Exposure time: 96 h - Species: Pseudokirchneriella)

**ErC50 (algae)** 2.2 mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata [Static])

**NOEC chronic crustacea** 0.78 mg/l

### Proprietary glycol (Proprietary)

**LC50 Fish 1** 41000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)

**EC50 Daphnia 1** 46300 mg/l (Exposure time: 48 h - Species: Daphnia magna)

**LC 50 Fish 2** 14 - 18 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

### Proprietary alcohol (Proprietary)

**LC50 Fish 1** 9640 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

**EC50 Daphnia 1** 13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)

**EC50 Other Aquatic Organisms 1** 1000 mg/l (Exposure time: 96 h - Species: Desmodesmus subspicatus)

**LC 50 Fish 2** 11130 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

**EC50 Other Aquatic Organisms 2** 1000 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)

### Persistence and Degradability

#### EXTEND 97

**Persistence and Degradability** Not established.

### Bioaccumulative Potential

#### Extend 97

**Bioaccumulative Potential** Not established.

### Proprietary ingredient 6 (Proprietary)

**BCF fish 1** (no significant bioconcentration)

**Log Pow** -2.18 (at 25 °C)

### Proprietary glycol (Proprietary)

**Log Pow** -1.93

### Proprietary alcohol (Proprietary)

**Log Pow** 0.05 (at 25 °C)

**Mobility in Soil** No additional information available

### Other Adverse Effects

**Other Information** : Avoid release to the environment.

## Section 13 • DISPOSAL CONSIDERATION



<b>Disposal instructions</b>	Consult federal, state and local regulations for disposal requirements.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## Section 14 • **TRANSPORT INFORMATION**

**General** Not DOT regulated in domestic (USA ground) transportation in package sizes less than 3,550 lbs (317 gallons); 1,610 kg (1,200 liters). The DOT transportation information below is for shipments with package sizes equal to or exceeding this value. IMDG Regulated Marine Pollutant.

### **DOT - Basic shipping requirements:**

<i>UN number</i>	Not regulated for transport
<i>DOT Label</i>	Not regulated for transport
<i>Proper shipping name</i>	Not regulated for transport
<i>Hazard class</i>	Not regulated for transport
<i>Packing group</i>	Not regulated for transport

### **IMGD - Basic shipping requirements:**

<i>UN number</i>	Not regulated for transport
<i>IMGD Label</i>	Not regulated for transport
<i>Proper shipping name</i>	Not regulated for transport
<i>Hazard class</i>	Not regulated for transport
<i>Packing group</i>	Not regulated for transport
<i>EMS NO</i>	Not regulated for transport

### **IATA - Basic shipping requirements:**

<i>UN number</i>	Not regulated for transport
<i>Proper shipping name</i>	Not regulated for transport
<i>Hazard class</i>	Not regulated for transport
<i>Packing group</i>	Not regulated for transport
<i>OCAP</i>	Not regulated for transport

### **Environmental hazards**

*Marine pollutant* N/A

**Special precautions** Read safety instructions, SDS and emergency procedures before handling.

## Section 15 • **REGULATORY INFORMATION**

**US federal regulations** This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Proposition 65 (CA)** Warning: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)** Not regulated



**CERCLA Hazardous Substance List (40 CFR 302.4)**

	<i>Reportable Quantity</i>	Not applicable
<b>SARA 304 Emergency release notification</b>		Not regulated
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>		Not listed
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>		
<i>Hazard categories</i>	Immediate Hazard	Yes
	Delayed Hazard	No
	Fire Hazard	No
	Pressure Hazard	No
	Reactivity Hazard	No
<b>SARA 302 Extremely hazardous substance</b>		Not listed
<b>SARA 311/312 Hazardous chemical</b>	Immediate (acute) health hazard	
	Delayed (chronic) health hazard	

**Section 16 • OTHER INFORMATION**

<b>Issue date</b>	January 5, 2018
<b>Disclaimer</b>	The above information is based on data of which the manufacturer is aware and is believed to be correct as of the date hereon. Since the information contained herein may be applied under conditions beyond the manufacturer's control and which may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, the manufacturer does not assume any responsibility for the results of its use. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.