

# SAFETY DATA SHEET

## KEYLATE COPPER

### 1. Product and Company Identification

**Product Code:** Z-KEYCU  
**Product Name:** KEYLATE COPPER  
**Trade Name:** KEYLATE COPPER  
**Company Name:** Stoller  
9090 Katy Freeway  
Suite 400  
Houston, TX 77024  
**Phone Number:**  
1 (713)461-1493

**Web site address:** www.stollerusa.com  
**Email address:** compliance@stollerusa.com

**Emergency Contact:** CHEMTREC, In the US and Canada call 1 (800)424-9300  
CHEMTREC, From other countries call +1 (703)527-3887

**Information:** 1 (800)539-5283

**Intended Use:** For agricultural use only

**Synonyms:** Chelated micronutrient solution

### 2. Hazards Identification

**Acute Toxicity: Inhalation, Category 5**  
**Serious Eye Damage/Eye Irritation, Category 2B**  
**Acute Toxicity: Skin, Category 5**  
**Acute Toxicity: Oral, Category 4**  
**Aquatic Toxicity (Acute), Category 1**  
**Aquatic Toxicity (Chronic), Category 1**



**GHS Signal Word:** **Warning**

**GHS Hazard Phrases:** H302 - Harmful if swallowed.  
H313 - May be harmful in contact with skin.  
H320 - Causes eye irritation.  
H333 - May be harmful if inhaled.  
H400 - Very toxic to aquatic life.  
H410 - Very toxic to aquatic life with long lasting effects.

**GHS Precautionary Phrases:** P264 - Wash hands thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P273 - Avoid release to the environment.

**GHS Response Phrases:** P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.  
P330 - Rinse mouth.  
P337+313 - If eye irritation persists, get medical advice/attention.  
P391 - Collect spillage.

**GHS Storage and Disposal Phrases:** P501 - Dispose of contents/container to permitted waste facility.

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<b>Potential Health Effects (Acute and Chronic):</b>	Hazards not otherwise classified (HNOC) or not covered by GHS: None.
<b>Inhalation:</b>	May be harmful if inhaled.
<b>Skin Contact:</b>	May be harmful if absorbed through skin.
<b>Eye Contact:</b>	May cause irritation.
<b>Ingestion:</b>	May cause gastric disturbance, discomfort, diarrhea.

### 3. Composition/Information on Ingredients

CAS #	Components (Chemical Name)	Concentration	RTECS #
7758-99-8	Copper(II) sulfate	<25.0 %	GL8900000
17863-38-6	ethanol, 2-amino-2-hydroxy-1,2,3-propanetricarboxylate	<15.0 %	NA

### 4. First Aid Measures

<b>Emergency and First Aid Procedures:</b>	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
<b>In Case of Inhalation:</b>	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
<b>In Case of Skin Contact:</b>	Wash off with soap and plenty of water. Take victim immediately to hospital.
<b>In Case of Eye Contact:</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<b>In Case of Ingestion:</b>	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
<b>Signs and Symptoms Of Exposure:</b>	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
<b>Indication of any immediate medical attention and special treatment needed:</b>	No data available.

### 5. Fire Fighting Measures

<b>Flash Pt:</b>	NA
<b>Explosive Limits:</b>	LEL: N.A. UEL: N.A.
<b>Autoignition Pt:</b>	No data.
<b>Suitable Extinguishing Media:</b>	Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.
<b>Fire Fighting Instructions:</b>	Wear self contained breathing apparatus for fire fighting if necessary. Further information: No data available.
<b>Flammable Properties and Hazards:</b>	Sulfur oxides.
<b>Hazardous Combustion Products:</b>	No data available.

## 6. Accidental Release Measures

**Protective Precautions, Protective Equipment and Emergency Procedures:** Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

**Environmental Precautions:** If spilling or leakage occurs, contain and clean if safe to do so. Prevent from reaching drains, sewer, or waterways. Do not let product enter drains. Discharge into the environment must be avoided.

**Steps To Be Taken In Case Material Is Released Or Spilled:** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 7. Handling and Storage

**Precautions To Be Taken in Handling:** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials 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. For precautions see section 2.

**Precautions To Be Taken in Storing:** Keep container tightly closed in a dry and well-ventilated place. Air sensitive. Handle and store under inert gas.  
Storage class 510) Non-Combustible.

**Other Precautions:** Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## 8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
7758-99-8	Copper(II) sulfate	No data.	TLV: 1 mg/m <sup>3</sup> as Cu	No data.
17863-38-6	ethanol, 2-amino-2-hydroxy-1,2,3-propanetricarboxylate	No data.	No data.	No data.

**Respiratory Equipment (Specify Type):** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Eye Protection:** Face shield and safety glasses.

**Protective Gloves:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full contact.  
Material: Nitrile rubber Minimum layer thickness: 0.11 mm.  
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Other Protective Clothing:** Complete suit protecting against chemicals.

**Engineering Controls (Ventilation etc.):** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

**Environmental Exposure Controls:** If spilling or leakage occurs, contain and clean if safe to do so. Prevent from reaching drains, sewer, or waterways. Do not let product enter drains. Discharge into the

environment must be avoided.

## 9. Physical and Chemical Properties

<b>Physical States:</b>	[ ] Gas [ X ] Liquid [ ] Solid
<b>Appearance and Odor:</b>	Dark blue color. Liquid.
<b>pH:</b>	7.5 - 9.5 N.D.
<b>Melting Point:</b>	No data.
<b>Boiling Point:</b>	No data.
<b>Flash Pt:</b>	NA
<b>Evaporation Rate:</b>	N.E.
<b>Flammability (solid, gas):</b>	No data available.
<b>Explosive Limits:</b>	LEL: N.A. UEL: N.A.
<b>Vapor Pressure (vs. Air or mm Hg):</b>	N.E.
<b>Vapor Density (vs. Air = 1):</b>	N.E.
<b>Specific Gravity (Water = 1):</b>	1.17 - 1.21 N.E.
<b>Density:</b>	~ 10.0 LB/GA N.E.
<b>Solubility in Water:</b>	Soluble
<b>Saturated Vapor Concentration:</b>	N.E.
<b>Octanol/Water Partition Coefficient:</b>	N.E.
<b>Percent Volatile:</b>	N.A.
<b>Autoignition Pt:</b>	No data.
<b>Decomposition Temperature:</b>	N.E.
<b>Viscosity:</b>	N.E.

## 10. Stability and Reactivity

<b>Reactivity:</b>	No data available.
<b>Stability:</b>	Unstable [ ] Stable [ X ]
<b>Conditions To Avoid - Instability:</b>	Exposure to moisture.
<b>Incompatibility - Materials To Avoid:</b>	Powdered metals, Anhydrous copper (II) sulfate, Reacts violently with 1, hydroxylamine, magnesium.
<b>Hazardous Decomposition or Byproducts:</b>	No data available. In the event of fire: see section 5.
<b>Possibility of Hazardous Reactions:</b>	Will occur [ ] Will not occur [ X ]
<b>Conditions To Avoid - Hazardous Reactions:</b>	No data available.

## 11. Toxicological Information

<b>Toxicological Information:</b>	Acute toxicity.  Germ cell mutagenicity: No data available. Reproductive Toxicity: Aspiration hazard: CAS# 7758-99-8: Acute toxicity, LD50, Oral, Rat, 300.0 MG/KG. Result: Behavioral: Altered sleep time (including change in righting reflex). Behavioral: Change in motor activity (specific assay). Behavioral: Antipsychotic. ; "Agricultural Chemicals," 1976/77 revision, Thomson, W.T., 4 vols., Thomson Publications, Fresno, CA, Vol/p/yr: 2,182, 1977
<b>Irritation or Corrosion:</b>	Skin corrosion/irritation. Irritating to skin . Serious eye damage/eye irritation:
<b>Sensitization:</b>	Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.
<b>Chronic Toxicological Effects:</b>	Specific target organ toxicity -single exposure (Globally Harmonized System) No data available. Specific target organ toxicity -repeated exposure: no data available.
<b>Carcinogenicity/Other Information:</b>	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
<b>Carcinogenicity:</b>	NTP? No      IARC Monographs? No      OSHA Regulated? No

## 12. Ecological Information

<b>Results of PBT and vPvB assessment:</b>	No data available. PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
<b>Persistence and Degradability:</b>	The methods for determining the biological degradability are not applicable to inorganic substances.
<b>Bioaccumulative Potential:</b>	No data available.
<b>Mobility in Soil:</b>	No data available.
<b>Other adverse effects:</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

## 13. Disposal Considerations

<b>Waste Disposal Method:</b>	PRODUCT: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
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## 14. Transport Information

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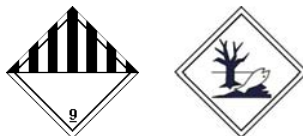
### LAND TRANSPORT (US DOT):

**DOT Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. Contains Cupric sulfate Environmentally hazardous substances, solid, n.o.s.

**DOT Hazard Class:** 9 CLASS 9

**UN/NA Number:** 3082

**Packing Group:** III



### MARINE TRANSPORT (IMDG/IMO):

**IMDG/IMO Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, liquid, n.o.s. contains cupric sulfate

**UN Number:** 3082

**Packing Group:** III

**Hazard Class:** 9 - CLASS 9

**IMDG EMS Page:**

**IMDG MFAG Number:**

**Marine Pollutant:** Yes

### AIR TRANSPORT (ICAO/IATA):

**ICAO/IATA Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. Contains Cupric Sulfate

**UN Number:** 3082

**Packing Group:** III

**Hazard Class:** 9 - CLASS 9

## 15. Regulatory Information

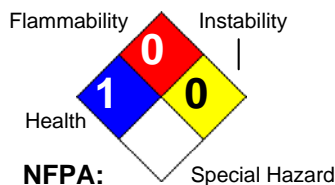
**Regulatory Information:** TSCA Inventory: In compliance with inventory requirements for commercial purposes.

## 16. Other Information

**Revision Date:** 10/31/2018

**Hazard Rating System:**

HEALTH		1
FLAMMABILITY		0
PHYSICAL		0
PPE		



**HMIS:**

**Additional Information About This Product:** No data available.

**This Product:**

**Company Policy or**

**Disclaimer:**

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