

SAFETY DATA SHEET

TOP COP WITH SULFUR

1. Product and Company Identification

Product Code: Z-TOPCOPR
Product Name: TOP COP WITH SULFUR
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

2. Hazards Identification

Eye Irritation, Category 2B
Aquatic Toxicity (Chronic), Category 1
Aquatic Toxicity (Acute), Category 1



GHS Signal Word: Warning
GHS Hazard Phrases: H320 - Causes eye irritation.
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.
P273 - Avoid release to the environment.
GHS Response Phrases: P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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.
Inhalation: May be irritating.
Skin Contact: May cause skin discomfort, irritation, or rash.
Eye Contact: May irritate.
Ingestion: May cause gastrointestinal irritation, nausea and vomiting.

3. Composition/Information on Ingredients

CAS #	Components (Chemical Name)	Concentration	RTECS #
7704-34-9	Sulfur	<55.0 %	WS4250000
NA	(Trade Secret)	<40.0 %	NA
7758-98-7	Cupric sulfate	<10.0 %	GL8800000

4. First Aid Measures

Emergency and First Aid Procedures:	Victims of severe exposure to chemicals must be taken to health providing centers for medical attention. Always bring with victim a copy of label and SDS of product to health professional.
In Case of Inhalation:	Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Call a physician if no improvement on patient condition.
In Case of Skin Contact:	Remove product and immediately wash affected area with soap and water for 15 minutes. Launder contaminated clothing. Seek medical attention if irritation occurs.
In Case of Eye Contact:	Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
In Case of Ingestion:	Drink at least two glasses of water. Never give anything by mouth to an unconscious person. Consult a physician.
Signs and Symptoms Of Exposure:	Irritation to eyes and mucous membranes and gastric distress from ingestion.
Note to Physician:	Treat symptomatically and supportively. Flush areas of contact with copious amounts of water.

5. Fire Fighting Measures

Flash Pt:	N.E.
Explosive Limits:	LEL: N.E. UEL: N.E.
Autoignition Pt:	N.E.
Suitable Extinguishing Media:	Use water spray, dry chemical, carbon dioxide, or chemical foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Fire Fighting Instructions:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
Flammable Properties and Hazards:	Dried residue can constitute a fire hazard so keep equipment and work place clean.
Hazardous Combustion Products:	None known.

6. Accidental Release Measures

Protective Precautions, Protective Equipment and Emergency Procedures:	In case of a large spill, clear the affected area and protect people. Such releases should be responded to by trained personnel using pre-planned procedures. In the event of an incidental release, minimum Personal Protective Equipment must be worn: latex or rubber gloves and rubber boots, goggles or full face-shield and coveralls.
Environmental Precautions:	Do not allow to enter drains or waterways.
Steps To Be Taken In Case Material Is Released Or Spilled:	It is necessary to contain the spill into the smallest area possible by diking, scooping, etc., and place liquid into an appropriate container, labeling it accordingly. If product is clean, use it as intended, following original label directions; should it get dirty or contaminated, salvage for proper disposal as waste. Absorb residual product onto dry carrier such as dirt, sand or any other absorbent material, then put in covered, labeled containers and dispose of as dry waste in accordance with Federal, State and Local waste disposal regulations.

7. Handling and Storage

Precautions To Be Taken in Handling:	Use with adequate ventilation. Avoid breathing dust, mist, or vapor. Avoid contact with eyes, skin, or clothing. Avoid ingestion and inhalation. Use only in a well-ventilated area. Empty containers may contain residual liquid or vapors and therefore should be handled the same as full containers.
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Precautions To Be Taken in Storing:

Extreme caution should be taken when entering or cleaning storage tanks or tank trucks. Fluid sulfur may evolve into toxic sulfur dioxide or hydrogen sulfide gas and be present. Confined space entry training is required before entering confined spaces.

Inspect all incoming containers before storage to ensure all are properly labeled and not damaged. Store only in shipping container: Bulk material can be stored in polyethylene, aluminum or stainless steel tanks. Keep containers closed and away from oxidizing agents. Store in a cool, dry place, away from direct sunlight, sources of intense heat or where freezing is possible. Store away from food, feed, clothing materials and living quarters. Whenever possible, place chemicals on secondary containers or diked area.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
7704-34-9	Sulfur	No data.	No data.	No data.
NA	(Trade Secret)	No data.	No data.	No data.
7758-98-7	Cupric sulfate	No data.	No data.	No data.

Recommended Exposure Limits: No occupational exposure limits have been established for this mixture.

Respiratory Equipment (Specify Type): A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Eye Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Use full face-shield when there is any likelihood of splashes.

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.

Other Protective Clothing: 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. Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Wear long sleeve shirt, long pants, and protective shoes with socks.

Engineering Controls (Ventilation etc.): General ventilation is usually adequate. Local exhaust should be used if needed for safe, comfortable working conditions. An eye bath, safety shower and washing facilities should be readily available.

Work/Hygienic/Maintenance Practices: Handle in accordance with good industrial hygiene and safety practice. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove all dirty or contaminated clothing and wash it before reusing, as well as any other PPE.

Environmental Exposure Controls: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of equipment wash water.

9. Physical and Chemical Properties

Physical States:	[<input type="checkbox"/>] Gas [<input checked="" type="checkbox"/>] Liquid [<input type="checkbox"/>] Solid
Appearance and Odor:	Light green / aqua colored opaque liquid.
	Odorless to faint, rotten egg smell.
pH:	~ 5.7 - 7.7
Freezing Point:	N.E.
Boiling Point:	444.60 C (832.3 F)
Flash Pt:	N.E.
Evaporation Rate:	No data.
Flammability (solid, gas):	No data available.
Explosive Limits:	LEL: N.E. UEL: N.E.
Vapor Pressure (vs. Air or mm Hg):	No data.
Vapor Density (vs. Air = 1):	No data.
Specific Gravity (Water = 1):	~ 1.41 - 1.45
Density:	~ 11.9 LB/GA
Solubility in Water:	Miscible but insolube
Saturated Vapor Concentration:	No data.
Octanol/Water Partition Coefficient:	N.E.
Autoignition Pt:	N.E.
Decomposition Temperature:	N.E.
Viscosity:	No data.
Explosive Properties:	No data available.
Oxidizing Properties:	No data available.
Information with regard to primary physical hazard:	

10. Stability and Reactivity

Reactivity:	N.A.
Stability:	Unstable [<input type="checkbox"/>] Stable [<input checked="" type="checkbox"/>]
Conditions To Avoid - Instability:	Stable under normal conditions.
Incompatibility - Materials To Avoid:	Keep away from flammable materials, sources of heat, flame, sparks, chlorates, nitrates, and other strong oxidizing agents.
Hazardous Decomposition or Byproducts:	Oxides of sulfur gases produced by burning sulfur.
Possibility of Hazardous Reactions:	Will occur [<input type="checkbox"/>] Will not occur [<input checked="" type="checkbox"/>]
Conditions To Avoid - Hazardous Reactions:	Keep away from heat sources, sparks, and open flames.

11. Toxicological Information

Toxicological Information:	<p>Mutagenicity: This product has not been investigated for mutagenic effects. Embryotoxicity: This product has not been investigated for embryotoxic effects. Teratogenicity: This product has not been investigated for teratogenic effects. Reproductive Toxicity: This product has not been investigated for toxic reproductive effects. CAS# 7704-34-9: Acute toxicity, LD50, Oral, Rat, > 3000. MG/KG. Result: Behavioral: Changes in psychophysiological tests. Acute toxicity, LD50, Dermal, Rabbit, < 2000. MG/KG. Result: Severe exposure can cause permanent skin and eye burns and liver damage, even death. Blood:Changes in serum composition (e.g. Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels: Phosphatases. Acute toxicity, LC50, Inhalation, Rat, 9.230 MG/L. Result: Brain and Coverings: Other degenerative changes. Blood:Changes in serum composition (e.g. Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels: True cholinesterase. Acute toxicity, LC50, Not reported., Bird, > 5620. PPM. Result: Behavioral: Convulsions or effect on seizure threshold. Cardiac:Other changes. Lungs, Thorax, or Respiration:Other changes. Acute toxicity, LD50, Oral, Rat, > 3000. MG/KG. Result: Gastrointestinal:Nausea or vomiting. CAS# 7758-98-7: Acute toxicity, LD50, Oral, Rat, 1000. MG/KG. Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system. Acute toxicity, LD50, Dermal, Rabbit, 8000. MG/KG. Result: Specific Developmental Abnormalities: Craniofacial (including nose and tongue). Specific Developmental Abnormalities: Other developmental abnormalities. Acute toxicity, LD50, Oral, Quail, 1150. MG/KG. Result: Maternal Effects: Uterus, cervix, vagina. Maternal Effects: Other effects.</p>
Irritation or Corrosion:	No data available.
Symptoms related to Toxicological Characteristics:	Nose or throat irritation, coughing, chest discomfort, asthma, difficulty breathing, skin irritation, nausea, vomiting, stinging eye irritation, and hives.
Sensitization:	The sensitizing properties of this product have not been thoroughly investigated.
Carcinogenicity/Other Information:	The carcinogenic properties of this product have not been thoroughly investigated.
Carcinogenicity:	NTP? Unknown IARC Monographs? Unknown OSHA Regulated? Unknown

12. Ecological Information

General Ecological Information:	<p>No environmental impact studies have been performed with this product. The available data on the ingredients of this plant nutrient product does not indicate any undue hazard to the environment under anticipated use and storage. Any waste due to spillage or leakage should be contained and disposed of as a Fertilizer (see Section 6 "Accidental Release Measures). Due to its nutrient value, may contribute to eutrophication in bodies of water. CAS# 7704-34-9: No data available. , 0.000 . Result: Behavioral Effects. LC50, Bluegill (Lepomis macrochirus), > 180.0 PPM. Result: Behavioral Effects. LC50, Rainbow Trout (Oncorhynchus mykiss), > 180.0 PPM. Result: Behavioral Effects. LC50, Daphnid Family (Daphniidae), > 5000. PPM. Result: Behavioral Effects. LC50, Shrimp (Acetes sp.), 646.0 - 839.0 PPM. Result: Behavioral Effects. CAS# 7758-98-7: LC50, Bluegill (Lepomis macrochirus), > 3200. MG/L, 48 H.</p>
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Revision: 10/04/2022
Supersedes Revision: 07/29/2022

LC50, Rainbow Trout (*Oncorhynchus mykiss*), 2.500 MG/L, 48 H.
LC50, Blue Crab (*Callinectes sapidus*), 27.00 PPM, 27 H.
LC50, Daphnid Family (*Daphniidae*), 320.0 MG/L, 48 H.
LC50, Oyster (*Crassostrea belcheri*), 34.00 PPM.
LC50, Shrimp (*Acetes sp.*), 13.00 PPM, 96 H.

Results of PBT and vPvB assessment:

No data available.

Persistence and Degradability:

No data available.

Bioaccumulative Potential:

No data available.

Mobility in Soil:

Sulfur is oxidized to sulfate and solubilizes in water and is taken up by plant. Copper is oxidized to sulfate and eventually elemental copper.

13. Disposal Considerations

Waste Disposal Method:

This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local waste regulatory authority. Avoid contaminating water by disposal of equipment wash waters or other product wastes.

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

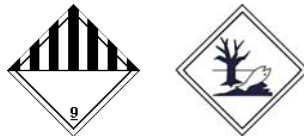
14. Transport Information

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, liquid, n.o.s. Contains Cupric Sulfate

DOT Hazard Class: 9 CLASS 9
Not Regulated by DOT (49CFR §171.4) for packages of less than 10 gallons.

UN/NA Number: UN3082 **Packing Group:** III

**MARINE TRANSPORT (IMDG/IMO):**

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

UN Number: UN3082 **Packing Group:** III
Hazard Class: 9 - CLASS 9
IMDG MFAG Number:
Marine Pollutant: Yes

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Trade Name: TOP COP

Not Regulated by DOT (49CFR §171.4) for packages of less than 10 gallons.

Reportable Quantity: 115 lb (53 kg)

UN Number: UN3082 **Packing Group:** III
Hazard Class: 9 - CLASS 9

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Revision: 10/04/2022
Supersedes Revision: 07/29/2022**Additional Transport Information:** Emergency Response Guide Number: N.A.

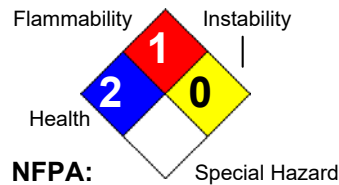
15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
7704-34-9	Sulfur	No	No	No
NA	(Trade Secret)	No	No	No
7758-98-7	Cupric sulfate	No	Yes NA	Yes-Cat. N100

Regulatory Information Statement:

16. Other Information

Revision Date: 10/04/2022**Previous revision:** 07/29/2022**Hazard Rating System:****Additional Information About This Product:** No data available.**Company Policy or Disclaimer:**

Stoller believes the information contained in this Safety Data Sheet is accurate based on the information provided by reputable suppliers of our raw materials. However, Stoller does not guarantee their accuracy or completeness. The information contained herein is furnished without warranty of any kind, whether expressed or implied, as to the safety of the goods, the merchantability of the goods, or the fitness of the goods for any particular purpose. Users should consider these data only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers. Stoller assumes no responsibility for results obtained or for incidental or consequential damages arising from the use of goods and data.