



STOLLER ENTERPRISES, INC.

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MATERIAL SAFETY DATA SHEET (Rev. 7/Sept/2012)

SECTION I - PRODUCT IDENTIFICATION

Company Name: STOLLER ENTERPRISES, INC.

Address: 4001 W Sam Houston Parkway N, Suite 100 • Houston, TX 77043 U.S.A.

Phone Number for Information: 1 (800) 539-5283 or 1 (713) 461-1493

Emergency Phone Number, CHEMTREC for Stoller Enterprises, Inc.:

In the US and Canada call toll-free 1 (800) 424-9300

From other countries call collect: +1 (703) 527-3887

Chemical Family: Sulfates

Chemical Name & Synonyms: Flowable mixture of Copper and Sulfur

Formula: Proprietary

Trade name & Synonyms: **TOP COP; TOP COP with SULFUR**

SECTION II - COMPOSITION/INGREDIENTS INFORMATION

INGREDIENTS:	CAS #	Approx. %	TLV
Sulfur	7704-34-9	50 %	Not established
Basic Copper Sulfate	1344-73-6	8.4 %	1 mg/m ³ as Cu

SECTION III - HAZARD IDENTIFICATION

NFPA HAZARD RATINGS

HEALTH HAZARD 1 FIRE HAZARD 0 REACTIVITY 0

Based on the National Fire Prevention Association rating system.

(0 = Minimal; 1 = Slight; 2 = Moderate; 3 = High; 4 = Severe)

SARA/TITLE III HAZARD CATEGORIES (See Section XV)

Immediate (Acute) Health: NO Delayed (Chronic) Health: YES

Reactive Hazard: NO Fire Hazard: NO Sudden Release of Pressure: NO

EXPOSURE LIMITS

OSHA Permissible Exposure Limit (PEL): Not Established

ACGIH Threshold Limit Value (TLV): Not Established

EFFECTS OF OVEREXPOSURE

1. ACUTE: Depending on the duration of contact, overexposure can irritate the eyes, skin, mucous membranes and any other exposed tissue.

EYES: Contact with product may cause redness, slight to severe irritation.

SKIN: May cause discomfort, skin irritation or rash unless treated promptly.

INHALATION: Prolonged exposure to low concentrations of vapors may cause sore throat and headache, nausea and dizziness, and even unconsciousness.

INGESTION: May cause malaise, nausea, burning sensation in stomach, gastrointestinal damage. Large doses may cause liver and kidney damage or even death.

2. CHRONIC: Copper is not metabolized by people affected with Wilson's disease, so it may accumulate in various tissues and result in severe organ damage.

SECTION IV - FIRST-AID MEASURES**EMERGENCY FIRST AID PROCEDURES**

Victims of severe exposure to chemicals must be taken to health providing centers for medical attention. If necessary, also rescuers must be attended. Always bring with victim a copy of label and MSDS of product to health professional.

EYES: Immediately, holding eyelids apart, flush eyes with copious amount of clean water for at least 15 minutes. Seek medical attention should severe irritation occurs.

SKIN: Wipe off product from skin and immediately wash affected area with abundant soap and water. Remove contaminated clothing taking care not to impregnate eyes. Seek medical attention if irritations occur.

INHALATION: Move patient to fresh air. Supplemental oxygen may be indicated. Assure mucous does not obstruct airway. Seek medical attention if victim's breathing is difficult.

INGESTION: Immediately contact a physician or poison control center for treatment advice. Victim should drink milk, egg whites or large quantities of water and be induced to vomiting. Never give anything by mouth to someone who is unconscious, having convulsions or unable to swallow.

ADDITIONAL INFORMATION: Note to Physician: Symptomatic treatment.

SECTION V - FIRE AND EXPLOSION DATA

FLASH POINT: Not Applicable; product is non-flammable.

FLAMMABLE LIMITS: **LEL:** Not Applicable **UEL:** Not Applicable

EXTINGUISHER MEDIA: Use all means adequate to fight surrounding fire, like water fog, foam, CO₂, dry chemicals, etc.

SPECIAL FIRE FIGHTING PROCEDURES: None specific for this product, however, it is suggested that firefighters do not use direct stream of water; it is recommended they wear self-contained breathing apparatus and full protective equipment, such as chemical resistant clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic fumes under fire conditions, like SO, SO₂, CO, CO₂, etc.

SECTION VI - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED: In case of a large spill, protect people by clearing and isolating the affected area. 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.

It is necessary to contain spill into the smallest area possible by diking, scooping, etc., and recover 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, and then put in covered labeled containers and dispose of as a dry waste in accordance with Federal, State and Local waste disposal regulations.

SECTION VII - HANDLING AND STORAGE

All personnel who handle this material should be trained to work with it safely. Avoid breathing vapors or mists; use in a well-ventilated location. Empty containers may contain residual liquid or vapors therefore, should be handled also with care. Store in a cool, dry place, away from direct sunlight, sources of intense heat or where freezing is possible. Store it away from food, feed, clothing materials and living quarters. Do not rinse containers and reuse for other purposes.

Inspect all incoming containers before storage to ensure all are properly labeled and not damaged. Whenever possible, place chemicals on secondary containers or diked area. Keep containers tightly closed when not in use. Keep away from reach of children and pets.

SECTION VIII - SPECIAL PROTECTION / CONTROL MEASURES

RESPIRATORY PROTECTION: Wear a NIOSH / OSHA approved respirator if working conditions require doing so.

VENTILATION: General ventilation is usually adequate. Local exhaust may be used depending on working conditions.

SKIN AND EYE PROTECTION: Safety glasses should be worn in any type of operation with chemicals. Protective gloves, long-sleeved shirt and long pants, as well as protective shoes should be worn as a good safety practice.

OTHER CONTROL MEASURES: An eye bath and washing facilities should be readily available. Remove all dirty or contaminated clothing and wash it before reusing.

WORK/HYGIENIC PRACTICES: As a general rule, do not eat, drink, smoke, and chew gum or tobacco when handling chemicals. Wash thoroughly after handling this product.

SECTION IX - PHYSICAL AND CHEMICAL CHARACTERISTICS

BOILING POINT: Not established	VAPOR PRESSURE (mm/Hg): 30
MELTING POINT: N/A	VAPOR DENSITY (air = 1): > 1
SPECIFIC GRAVITY: 1.42 - 1.45	REACTIVITY IN WATER: N/E
SOLUBILITY IN WATER: Miscible but insoluble	EVAPORATION RATE: < 1
APPEARANCE AND ODOR: green-grayish viscous liquid, very slight rotten egg odor.	
OTHER:	

SECTION X - PHYSICAL HAZARDS (REACTIVITY DATA)

STABILITY: Stable: Yes Unstable:

CONDITIONS TO AVOID: N/A

INCOMPATIBILITY, MATERIALS TO AVOID: Strong oxidizing agents.

HAZARDOUS POLYMERIZATION: Will not occur

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic fumes under fire conditions, such as SO₂, CO, CO₂, etc.

SECTION XI - TOXICOLOGICAL INFORMATION**TOXICITY DATA**

ORAL LD₅₀: Sulfur (rat) >5000 mg/kg; Cupric sulfate (rat) 300 mg/kg
DERMAL LD₅₀: Sulfur (rat) >2000 mg/kg; Cupric sulfate (rabbits) >8000 mg/kg
INHALATION TCLO: Sulfur 5490 mg/m³; Cupric sulfate (rats) >2950 mg/m³

CARCINOGENICITY

No component listed as a carcinogenic by CPDB, IARC, NTP, OSHA, CAL/OSHA and ACGIH.

MUTAGENICITY:

The components of this product are not reported to produce mutagen effects in humans.

EMBRYOTOXICITY: The components of this product are not reported to produce embryotoxic effects in humans.

TERATOGENICITY: The components of this product are not reported to produce teratogenic effects in humans.

REPRODUCTIVE TOXICITY: The components of this product are not reported to produce reproductive toxicity effects in humans.

SECTION XII - ENVIRONMENTAL EFFECTS DATA

The available data on this material does not indicate any undue hazard to the environment under anticipated use and storage. All work practices must be aimed at preventing environmental contamination.

Any waste due to spillage or leakage should be contained and disposed of accordingly, see above under Section VI: "Accidental Release Measures". Because of its nutritional nature, may cause eutrophication if discharged in bodies of water. May be toxic to fish due to its copper component.

To aid our customers in complying with regulatory requirements, SARA Title III hazard categories for this product are indicated in Section III. If the word "YES" appears next to any category, this product may be reportable by you under the requirements of 40 CFR Part 370. Please consult those regulations for details

SECTION XIII - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: Waste disposal must be done following all Federal, State and Local regulations. 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.

SECTION XIV - TRANSPORTATION DATA**DOT Proper Shipping Name:**

Not regulated by DOT (49CFR 171.4) in containers less than 10 gallons. (Trade name: TOP COP)

Containers 10 gallons (37.854 L) and larger reach the threshold limit for Reportable Quantity (RQ) of 10 Lb for Copper Sulfate, therefore should be shipped as:

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Contains Copper Sulfate) 9, III, Marine Pollutant, RQ

IATA Proper Shipping Name:

Not regulated in containers of less than 10 gallons. (Trade name: TOP COP).

For containers 10 gallons (37.854 L) and larger (DGR 53rd Edition §3.9.2.4):

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Contains Copper Sulfate) 9, III, Marine Pollutant, RQ

IMO Proper Shipping Name:

For ANY size of container:

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Contains Copper Sulfate) CLASS 9, PG III, Marine Pollutant

Placards / Markings:

Not required as per 49CFR172.504(f)(9) for domestic transportation.
Miscellaneous 9 and Marine Pollutant for international transportation.

Emergency Response Guide Number: 171

SECTION XV - REGULATORY INFORMATION

U. S. SARA REPORTING REQUIREMENTS: This product might be subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act:

U.S. SARA 302 (40 CFR 355, Appendix A): NO

U.S. SARA 304 (40 CFR, Table 302.4): NO

U.S. SARA 313 (40 CFR 372.65): This product contains the following substance subject to the reporting requirements of Section 313: copper compound.

U.S. SARA THRESHOLD PLANNING QUANTITY: NO

U.S. CERCLA REPORTABLE QUANTITY (RQ): YES. Copper Sulfate = 10 Lb (4.54 Kg)

U.S. TSCA INVENTORY STATUS: The components of this material are listed on the TSCA Inventory.

CANADIAN DSL INVENTORY: The components of this material are listed on the DSL Inventory.

If this product contains components designated as CERCLA Reportable Quantity (RQ) Substance, Section 103 of CERCLA requires the "person in charge" of a facility or vessel, as soon as he or she has knowledge of a release of a hazardous substance in an amount equal to or greater than an RQ, to report the release immediately to the National Response Center in Washington, D.C. The NRC number is 1-800-424-8802 or 1 (202) 267-2675.

SECTION XVI - OTHER INFORMATION

Date of MSDS Revision: September 7, 2012. Supersedes all previous versions, including the one from February 2, 2011.
Sections updated: I, III, VII, IX and XIV

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