



## MATERIAL SAFETY DATA SHEET

### SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME:	<b>Vigor-Copper</b>
MANUFACTURERS NAME:	AGRO-K CORPORATION
ADDRESS:	8030 Main Street N.E. Minneapolis, MN 55432-1844
TELEPHONE:	(763) 780-4116 / (800) 328-2418 FAX: (763) 780-4316
CHEMICAL NAME:	Chelated Salt of Copper
COMMON SYNONYMS	Saccharated Copper in an aqueous solution
FORMULA WEIGHT:	249.68
CAS No.:	7758-99-8
NIOSH/RTECS No.:	GL8900000

### SECTION II - PRECAUTIONARY LABELING

WARNING: CAUSES IRRITATION. HARMFUL IF SWALLOWED.

Avoid contact with eyes, skin, and clothing.

Keep in tightly closed container.

Use with adequate ventilation. Wash thoroughly after handling.

#### International Labeling

Harmful if swallowed. Irritating to respiratory system and skin. After contact with skin, wash immediately with plenty of soap and water.

#### SAF-T-DATA:

Storage Color Code:	Orange (general storage)
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### SECTION III - PHYSICAL DATA

Boiling Point:	N/A
Vapor Pressure (mmHg):	N/A
Vapor Density (air=1):	N/A
Specific Gravity:	1.14
(H <sub>2</sub> O = 1)	
Evaporation Rate:	N/A
Solubility (H <sub>2</sub> O):	Appreciable (>10%)
% Volatiles by Volume:	0
(21 degrees C)	
pH:	N/A
Odor Threshold (ppm):	N/A
Physical State:	Liquid
Coefficient Water/Oil Distribution:	N/A
Appearance & Odor	Blue & Odorless.

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Extinguishing Media:	water
Toxic Gases Produced:	sulfur dioxide

### SECTION V - HEALTH HAZARD DATA

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Page 2

Threshold Limit Value (TLV/TWA):	1mg/m <sup>3</sup>
TLV is for Copper, dusts and mists, as Cu.	
Short-term exposure limit (STEL):	not established
Permissible exposure limit (PEL):	1 mg/m <sup>3</sup>
PEL is for Copper dust and mist, as Cu.	

### Toxicity of components

Oral Rat LD 50 for Cupric Sulfate, 5-Hydrate

### Effects of Overexposure

INHALATION:	Irritation of upper respiratory tract, irritation of mucous membranes
SKIN CONTACT:	Irritation
EYE CONTACT:	Irritation
INGESTION:	Nausea, vomiting, diarrhea, gastrointestinal pain
CHRONIC EFFECTS:	Blood damage

### Emergency and First Aid Procedures

INGESTION:	CALL A PHYSICIAN. If swallowed, if conscious, give large amounts of water. Induce vomiting.
INHALATION:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
SKIN CONTACT:	In case of contact, flush skin with water.
EYE CONTACT:	In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

### SECTION VI - REACTIVITY DATA

Stability:	Stable
Conditions to Avoid:	Heat
Incompatibles:	Strong reducing agents, strong oxidizing agents, magnesium
Decomposition Products:	Oxides of sulfur

### SECTION VII - SPILL & DISPOSAL PROCEDURES

Disposal Procedure:	Dispose in accordance with environmental regulations.
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