

MATERIAL SAFETY DATA SHEET



In the event of a medical or chemical emergency contact
ChemTel, Inc. North American 1-800-255-3924 or worldwide
Intl. + 01-813-248-0585

Voluntary Purchasing Groups, Inc.
230 FM 87
Bonham, Texas 75418

Hi-Yield® Copperas

Effective Date: May 23, 2012

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT: Hi-Yield® Copperas
CHEMICAL FAMILY: Iron II Sulfate
CHEMICAL NAME: Ferrous Sulfate heptahydrate
FORMULA: FeSO₄7H₂O

COMPANY IDENTIFICATION:

Voluntary Purchasing Groups, Inc.
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Bonham, TX. 75418

2. COMPOSITION/INFORMATION ON INGREDIENTS:

CHEMICAL COMPONENT	% (TYPICAL)
Ferrous Sulfate heptahydrate	Proprietary
Iron (Fe)	19.00%
Sulfur (S)	11.00%

3. PHYSICAL DATA:

BOILING POINT (°F) Not established	SPECIFIC GRAVITY (H ₂ O=1) 1.899	VAPOR PRESSURE (mm Hg) Not established
PERCENT VOLATILE BY VOLUME (%) Not established	VAPOR DENSITY (AIR=1) Not established	EVAPORATION RATE (ethyl ether=1) Not established
SOLUBILITY IN WATER Miscible	REACTIVITY IN WATER Does not apply	
APPEARANCE AND ODOR Light blue-green solid; sour acidic odor		

4. FIRE AND EXPLOSION DATA:

FLASH POINT (°F) Does not apply	FLAMMABLE LIMITS IN AIR (% by volume) Lower: <u>Not determined</u> Upper: <u>Not determined</u>	
EXTINGUISHING MEDIA Use extinguisher appropriate to surrounding fires.	AUTO IGNITION TEMPERATURE Does not apply	
UNUSUAL FIRE AND EXPLOSION HAZARDS Not determined		
SPECIAL FIRE FIGHTING PROCEDURES Use fire-fighting procedures appropriate to surrounding fires.		

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5. HEALTH INFORMATION:

PRIMARY ROUTES OF EXPOSURE AND TARGET ORGANS Eyes, skin, upper respiratory tract, gastrointestinal tract		
SIGNS AND SYMPTOMS OF EXPOSURE		
(1) ACUTE OVEREXPOSURE EYE CONTACT: Irritation, itching, stinging. SKIN CONTACT: Irritation. INHALATION: Irritation of upper respiratory tract. INGESTION: Irritation of G.I. tract, stomach ache, acidic or sour taste, and possible shock, liver damage, tachycardia, or death.		
(2) CHRONIC OVEREXPOSURE Not determined		
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE Dermatitis, asthma or conjunctivitis		
CHEMICAL/COMPONENT LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN None		
NTP <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	IARC <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	OSHA <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
OTHER EXPOSURE LIMITS LD50 (oral-rat)-1480 mg/kg		
EMERGENCY AND FIRST AID PROCEDURES EYE CONTACT: Flush with water for 15 minutes. Seek medical attention if irritation persists. SKIN CONTACT: Remove contaminated clothing. Flush with water for several minutes. Seek medical attention if irritation persists. INGESTION: Seek medical attention immediately. Do not induce vomiting. INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration. Seek medical attention immediately.		

6. REACTIVITY DATA:

STABILITY <input type="checkbox"/> Unstable <input checked="" type="checkbox"/> Stable	CONDITIONS TO AVOID Extremely high temperatures.
INCOMPATIBILITY (Materials to Avoid) Oxidizing agents and alkalis	
HAZARDOUS DECOMPOSITION PRODUCTS Sulfur oxides, SO ₂ and SO ₃	
HAZARDOUS POLYMERIZATION <input type="checkbox"/> May Occur <input checked="" type="checkbox"/> Will Not occur	CONDITIONS TO AVOID Not determined

7. SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE MATERIAL IS LEAKED OR SPILLED Don protective equipment if needed. See Section 8. Sweep into a labeled container for disposal.
WASTE DISPOSAL METHOD Dispose of in accordance with Federal, State, and local regulations.

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8. PERSONAL PROTECTION INFORMATION:

RESPIRATORY PROTECTION

NIOSH/MSHA approved respirator if concentration is above the exposure limit.

VENTILATION

Use in a well-ventilated area.

PROTECTIVE GLOVES

If skin contact is likely to occur.

EYE PROTECTION

Safety goggles

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Not determined

9. PHYSICAL AND CHEMICAL PROPERTIES:

PRECAUTIONS TO BE TAKEN IN HANDLING & STORING

Store in a dry area below 75 degrees F. Keep container closed when not in use.

OTHER PRECAUTIONS

Not determined.

10. TRANSPORT INFORMATION:

Not regulated by DOT or IMDG.

11. OTHER INFORMATION:

The information contained within was obtained from authoritative sources and is believed to be accurate for the manner in which the product is intended to be used. Other uses could result in ramifications, which are not included within this document.