

MATERIAL SAFETY DATA SHEET Page 1

PRODUCT NAME : FERROUS SULFATE HEPTAHYDRATE
 PRODUCT CODE : 06101

50# BAG-GRA

Date: 3-NOV-1997 16:14:53.15

CAS #: 007782630

MSDS No. 000493

Revision No./Date: 02 951208
Detail Number 00215/02

FORMULA: FeSO₄ · 7(H₂O)
 CHEM. FAMILY: inorganic salts
 CHEMICAL NAME AND SYNONYMS:
 Ferrous Sulfate Heptahydrate;
 Copperas;
 Green Vitriol;
 Iron(II) Sulfate Heptahydrate;
 MSDS 000493 DETAIL 00215
 SUPPLIERS NAME : Harcros Chemicals Inc.
 5200 Speaker Road
 Kansas City KS 66106-1095

SUPPLIERS PHONE NUMBER : 913-321-3131
 TRANSPORTATION EMERGENCY PHONE NUMBER : 1-800-424-9300

S.A.R.A. INFORMATION

HAZARDS : Acute Chronic
 PHYSICAL DATA : Pure Solid

SECTION I HAZARDOUS INGREDIENTS

Ingredient Cas Number	MAX & W/W	SARA APPLIES			AIR CONTAMINANT LEVELS			
		312	313	372	TWA/TLV (ppm)	STEL (ppm)	CEIL (ppm)	SKIN AGENT
Copperas Ferrous Sulfate Heptahydrate (CAS # 7782-63-0)	100.0	Y	N	N	As Iron TWA/TLV 1 mg/m ³ OSHA/ACGIH			

SECTION II HEALTH HAZARDS

POTENTIAL EFFECTS OF EXPOSURE

EYES

Eye contact with product may cause irritation redness pain

SKIN

Skin contact may cause irritation

INHALATION

Inhalation may cause irritation

INGESTION

Ingestion may cause nausea vomiting diarrhea coma even death

TARGET ORGANS

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Harcros Chemicals Inc

Kansas City, Kansas

MATERIAL SAFETY DATA SHEET Page 2

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Date: 3-NOV-1997 16:14:53.76

SECTION II HEALTH HAZARDS

(CONTINUED)

OVEREXPOSURE MAY CAUSE DAMAGE TO,
 DISORDERS OF, OR ADVERSELY AFFECT THE FOLLOWING SYSTEMS, FUNCTIONS, ORGANS: liver

FIRST AID

FIRST AID EYES

Immediately flush eyes with plenty of water for at least 15 minutes, while holding eyelids apart to ensure flushing of entire surface. Call a physician.

FIRST AID SKIN

Immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Thoroughly clean clothing and shoes before reuse. Call a physician.

FIRST AID INHALATION

Remove to fresh air. If not breathing give artificial respiration, preferably mouth to mouth. If breathing is difficult give oxygen. Call a physician.

FIRST AID INGESTION

If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call a physician.

OTHER INFORMATION

ROUTES OF ENTRY

eye contact inhalation

OVEREXPOSURE MAY AGGRAVATE DISORDERS OF THE
eyes skin liver kidneys respiratory system

SECTION III SPECIAL PROTECTION

PROTECTIVE EQUIPMENT

PROTECTIVE EQUIPMENT EYES

chemical goggles Do Not wear contact lenses when working with chemicals.

PROTECTIVE EQUIPMENT SKIN

impervious gloves clean body covering clothing

PROTECTIVE EQUIPMENT INHALATION

If exposure limits are exceeded, or if exposure may occur, use a NIOSH/MSHA respirator approved for your conditions of exposure. Refer to the most recent NIOSH publications concerning chemical hazards, or consult your safety equipment supplier. Respiratory protection programs must be in compliance with OSHA requirements in 29 CFR 1910.134. For emergencies, a NIOSH/MSHA approved positive pressure breathing apparatus should be readily available.

VENTILATION REQUIRED:

Adequate ventilation is required to minimize exposure or to maintain exposure levels below OSHA/ACGIH requirements.

ADDITIONAL PROTECTIVE MEASURES

Safety shower, eye wash fountain, and washing facilities should be readily available.

SECTION IV FIRE & EXPLOSION HAZARD DATA

Flash Point (METHOD): > OR = N/A
 Flammable Limits (% Volume in Air)

UPPER: N/D

Lower: N/D

Harcros Chemicals Inc

Kansas City, Kansas

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PRODUCT NAME : FERROUS SULFATE HEPTAHYDRATE Date: 3-NOV-1997 16:14:54.37
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SECTION IV FIRE & EXPLOSION HAZARD DATA

(CONTINUED)

HMS Info Health : 1
Fire : 0
React : 0
Special : X

EXTINGUISHING MEDIA

media appropriate for surrounding fire

FIRE FIGHTING PROCEDURES

Not considered a fire hazard.

UNUSUAL FIRE & EXPLOSION HAZARDS

none currently known

SECTION V PHYSICAL DATA

Boiling Point: N/D
Freezing Point: N/D
Specific Gravity (H(2)O=1): > OR = 1.9000 @ 68 deg. F
Vapor Pressure (MM HG.): N/D
Vapor Density (AIR=1): N/D
Evaporation Rate (NA =1): N/D
Solubility in Water: 33%
Percent Volatile by Volume: N/D
pH: aqueous approx. > OR = 3.700
Appearance:
SOLID - POWDER, CRYSTAL, FLAKE, GRANULE
TABLET, PRILL, BRIQUETTE, ETC.
Odor :
NIL

SECTION VI REACTIVITY DATA

STABILITY

Stable

INCOMPATIBILITY

inorganic bases bleaching agents (oxidizers) Avoid contact with bleaching agents and oxidizers
which include chlorine, oxygen, permanganates, perchlorates, percarbonates, peroxides, chromates,
hypochlorites, nitric acid, and sulfuric acid.

HAZARDOUS DECOMPOSITION PRODUCTS

oxides of sulfur

HAZARDOUS POLYMERIZATION

Will not occur

SECTION VII SPILL AND LEAK PROCEDURES

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SECTION VII SPILL AND LEAK PROCEDURES

(CONTINUED)

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Sweep, shovel, or pick up and return to dry, clean container. Use non-sparking tools, avoid
dust formation. Flush spill area with water.

DISPOSAL METHOD

Material that cannot be used or chemically reprocessed should be disposed of at an approved
facility in accordance with any applicable regulations under the Resource Conservation and
Recovery Act. Dispose of material in accordance with all Federal, State and local regulations.
Local regulations may be more stringent than Federal or State.

SECTION VIII

Proper Shipping Name: UNCLASSIFIED

Label Requirements: NONE

Reportable Quantity: None

SECTION IX ADDITIONAL INFORMATION

PRECAUTIONS

Do Not breathe dust. Do Not get in eyes, or on skin. Do not swallow. Wash thoroughly after
handling.

HANDLING

ATTENTION: This container hazardous when emptied. Since emptied container contains product
residues (vapor or liquid), all labeled hazard precautions must be observed.

STORAGE

Keep container closed when not in use. Store in a cool dry place. Keep out of reach of
children.

NAME: GENE TURNER

DATE ISSUED: 930322

DATE REVISED: 951208

< = LESS THAN
> = MORE THAN

N/A = NOT APPLICABLE
N/D = NOT DETERMINED
N/E = NOT ESTABLISHED

UNK = UNKNOWN

The information provided in this Material Safety data sheet has been obtained from sources
believed to be reliable. Harcros Chemicals Inc provides no warranties, either expressed or
implied and assumes no responsibility for the accuracy or completeness of the data contained
herein. This information is offered for your information, consideration, and investigation.
You should satisfy yourself that you have all current data relevant to your particular use.
Harcros Chemicals Inc knows of no medical condition, other than those noted on this material
safety data sheet, which are generally recognized as being aggravated by exposure to this product.