

MATERIAL SAFETY DATA SHEET

I. GENERAL INFORMATION

Chemical Name & Synonyms
 FERROUS SULFATE HEPTAHYDRATE
 Chemical Family
 SULFATE
 Proper DOT Shipping Name
 FERROUS SULFATE HEPTAHYDRATE

Trade Name & Synonyms
 CRYSTALLIRON, COPPERAS, IRON SULFATE
 Formula

Manufacturer
 SYNERGY PRODUCTION GROUP, INC.
 Manufacturer's Address
 800 RICHLAND SHALE ROAD
 MANSFIELD, OHIO 44903

FeSO4 7H2O
 DOT Hazard Classification
 R0 ENVIRONMENTALLY HAZARDOUS
 SUBSTANCE, SOLID, N.O.S. (FERROUS
 SULFATE), 9, UN3077, III.
 Manufacturer's Phone Number
 419-522-2471
 Emergency Response Phone Number
 1-800-424-5571
 CAS# 7782-63-0

II. INGREDIENTS

Principal Hazardous Components
 FERROUS SULFATE*
 *IF IN PACKAGE OF 1000 POUNDS
 OR GREATER.

Percent
 100

Threshold Limit Value (units)
 8-HR TWA 1mg/m as Fe **
 RAT, ORAL LD 1480 mg/kg
 **ACGIH (1979) TLV FOR SOLUBLE
 IRON SALTS.

III. PHYSICAL DATA

Boiling Point (F)
 572
 Vapor Pressure (mm hg.)
 Vapor Density (Air=1)
 Solubility In Water
 COLD--32.8 g/100g water
 HOT--149G/100G water
 APPEARANCE & ODOR
 ODORLESS, BLUE-GREEN, FINE CRYSTALS

Specific Gravity (H2O=1)
 1.898
 Percent Volatile By Volume (%)
 ZERO
 Evaporation Rate (WATER=1)
 ZERO
 ph (10% aqueous solution)
 3.7

IV. FIRE & EXPLOSION DATA

Flash Point (Test Method): NONE
 HMIS RATING: H1, F0, R0, Personal Protection Code E(Safety glasses,
 Dust Respirators)
 Extinguishing Media
 WATER OR WHATEVER IS APPROPRIATE FOR THE FIRE CONDITIONS.

Flammable Limits: NONE

Special Fire Fighting Procedures
 EMPLOY FULL PROTECTIVE CLOTHING AND SELF-CONTAINED BREATHING APPARATUS
 WHEN THIS MATERIAL IS INVOLVED IN A FIRE SITUATION IN AN ENCLOSED AREA.

Unusual Fire & Explosion Hazards
 FERROUS SULFATE MAY DECOMPOSE AT HIGH TEMPERATURES TO PRODUCE TOXIC AND
 CORROSIVE MATERIALS.

V. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	OSHA THRESHOLD LIMIT VALUE	ACGIH THRESHOLD LIMIT VALUE
8 HR. TWA 1mg/m as Fe		TLV 1mg/m as Fe

SYMPTOMS OF EXPOSURE

EXCESSIVE INHALATION OF DUST OR SOLUTION MIST IS IRRITATING TO THE RESPIRATORY TRACT. EYE CONTACT IS IRRITATING AND CAN BE DAMAGING. FERROUS SULFATE IS LOW IN TOXICITY (USED IN IRON NUTRIENT IN ANIMAL FEED) BUT IN INGESTION OF HUGE QUANTITIES CAN PRODUCE GI TRACT DISTURBANCES, SEVERE SHOCK, VOMITING, LIVER DAMAGE, TACHYCARDIA AND EVEN DEATH (SOMETIMES AS MUCH AS THREE DAYS DELAYED).

EMERGENCY FIRST AID

IF EYES OR SKIN ARE IRRITATED, WASH WITH WATER AND SALT SOLUTION. IF IRRITATION PERSISTS OR IF INGESTED ACCIDENTLY SEE PHYSICIAN AT ONCE. IF INGESTED, RINSE MOUTH WITH WATER, DRINK LOTS OF WATER AND CONSULT PHYSICIAN. IF INHALED SEED FRESH AIR, SEEK MEDICAL HELP IF IRRITATION CONTINUES.

VI. REACTIVITY DATA

STABILITY: FERROUS SULFATE IS STABLE
HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS TO AVOID

DO NOT STORE IN OPEN CONTAINERS OR IN HIGH HUMIDITY OR HIGH TEMPERATURE. THESE CONDITIONS WILL CAUSE AN OXIDATION TO FERRIC SULFATE.
MATERIALS TO AVOID

ALKALIES, SOLUBLE CARBONATES AND OXIDIZING AGENTS

VII. ENVIRONMENTAL PROTECTION PROCEDURES

SPILL RESPONSE AND WASTE DISPOSAL METHOD
AVOID CREATING DUST. SCOOP UP SPILLED SOLIDS FOR RECOVERY OR DISPOSAL. THOSE INVOLVED IN CLEANUP NEED PROTECTION FROM INHALATION AND SKIN CONTACT.

TRACE RESIDUES MAY BE FLUSHED WITH WATER, BUT DO NOT SEND THIS SOLUBLE IRON COMPOUND TO SEWERS OR WATERWAYS WITHOUT TREATMENT. RECOVER SPILLED SOLUTIONS FOR TREATMENT. TREAT WATER SOLUTION OF SCRAP MATERIAL WITH SODA ASH OR DILUTE SODIUM HYDROXIDE TO PRECIPITATE IRON. SEPARATE THE PRECIPITATE THE DISPOSE OF IN AN APPROVED LANDFILL. NEUTRALIZE THE CLEAR REMAINING LIQUID WITH DILUTE ACID BEFORE FLUSHING TO SEWER.

VIII. SPECIAL PROTECTION INFORMATION

EYE PROTECTION:	GOGGLES
RESPIRATORY PROTECTION:	DUST MASK (3M #8710)
SKIN PROTECTION:	LONG SLEEVES, APRON, RUBBER GLOVES
VENTILATION RECOMMENDED:	YES
OTHER PROTECTION:	EYEWASH STATION AND SAFETY SHOWER SHOULD BE READILY AVAILABLE WHERE THIS MATERIAL IS IN USE.

IX. SPECIAL PRECAUTIONS

HYGIENIC PRACTICES IN HANDLING AND STORAGE
STORE IN WELL CLOSED CONTAINERS IN A COOL, DRY AREA AWAY FROM ALKALINE MATERIALS AND OXIDIZING AGENTS.