



VOLUNTARY PURCHASING GROUPS, INC.

Safety Data Sheet Hi-Yield Copperas

SECTION 1: Identification

Product identifier

Product name Hi-Yield Copperas
Substance name Ferrous sulfate

Recommended use of the chemical and restrictions on use

Recommended Use: Fertilizer

Supplier's details

Name Voluntary Purchasing Groups, Inc.
Address 230 FM 87
Bonham, TX 75418
USA

Telephone 855-270-4776

Emergency phone number(s)

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

SECTION 2: Hazard identification

Classification of the substance or mixture

GHS classification in accordance with OSHA (29 CFR 1910.1200)

- Acute toxicity, oral (chapter 3.1), Cat. 4
- Skin corrosion/irritation (chapter 3.2), Cat. 2
- Eye damage/irritation (chapter 3.3), Cat. 2A

GHS label elements, including precautionary statements

Pictogram



Signal word

Warning

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Hazard statement(s)

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation

Precautionary statement(s)

P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330	Rinse mouth.
P501	Dispose of contents/container to an approved waste disposal plant.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.

Other hazards which do not result in classification

None

Statement regarding ingredients of unknown toxicity (OSHA)

No data available.

SECTION 3: Composition/information on ingredients

Substances

Substance name	Ferrous sulfate
Formula	FeSO ₄ · 7H ₂ O
Molecular weight	278.01
Other names / synonyms	Ferrous Sulfate Heptahydrate
Impurities and stabilizing additives	No data available.

Hazardous components

1. Iron(II) sulfate heptahydrate

Concentration	100 % (Weight)
CAS no.	7782-63-0

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
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If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash off with soap and plenty of water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Personal protective equipment for first-aid responders	No data available.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see Section 2.2) and/or in Section 11.

Indication of immediate medical attention and special treatment needed, if necessary

No data available.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical

Sulphur oxides, Iron oxides.

Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

The product itself does not burn.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Avoid breathing dust. For personal protection see Section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

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For disposal see Section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see Section 2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Air sensitive. Store under inert gas. Hygroscopic.

Specific end use(s)

Apart from the uses mentioned in Section 1 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

Control parameters

1. Iron(II) sulfate heptahydrate (CAS: 7782-63-0)

TWA: 1mg/m³; USA (ACGIH)

ACGIH Threshold Limit Values (TLV)

2. Iron(II) sulfate heptahydrate (CAS: 7782-63-0)

TWA (Inhalation): 1mg/m³; USA (OSHA)

OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side-shields.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection

Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

For nuisance exposures use a particle respirator. For higher level protection use type, wear NIOSH approved air-purifying respirator with cartridges/canisters.

Thermal hazards

No data available.

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Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form	Solid
Odor	No data available.
Odor threshold	No data available.
pH	3-4
Melting point/freezing point	Melting point/range: 64° C (147° F)
Initial boiling point and boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Upper/lower flammability limits	No data available.
Upper/lower explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility(ies)	33 g/100 g H ₂ O @ 20C
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

Other safety information

Bulk density 1,040 kg/m³

SECTION 10: Stability and reactivity

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available.

Conditions to avoid

No data available.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

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Other decomposition products – no data available. In the event of a fire see Section 5.

SECTION 11: Toxicological information

Information on toxicological effects

Skin corrosion/irritation

No data available.

Serious eye damage/irritation

No data available.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available.

Summary of evaluation of the CMR properties

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

No data available.

SECTION 12: Ecological information

Toxicity

No data available.

Persistence and degradability

No data available.

Bioaccumulative potential

No data available.

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Mobility in soil

No data available.

Results of PBT and vPvB assessment

No data available.

Other adverse effects

No data available.

SECTION 13: Disposal considerations

Disposal of the product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Disposal of contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN Number: 3077

Class: 9

Packing group: III

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Ferrous Sulfate Heptahydrate)

Reportable Quantity (RQ): 1,000 lbs

Marine pollutant: No

Poison Inhalation Hazard: No

IMDG

Not dangerous goods.

IATA

Not dangerous goods.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Massachusetts Right To Know Components

Chemical name: Ferrous sulfate

CAS number: 7782-63-0

New Jersey Right To Know Components

Chemical name: Ferrous sulfate

CAS number: 7782-63-0

Pennsylvania Right To Know Components

Chemical name: Ferrous sulfate

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CAS number: 7782-63-0

Toxic Substances Control Act (TSCA) Inventory

CAS# 7782-63-0 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS# for the anhydrous form is on the inventory (40CFR720.3(u)(2)).

CAS# 7720-78-7 is listed on the TSCA Inventory.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA + Title III, Section 313.

SARA 311/312 Hazards

Acute health hazard

Chronic health hazard

CWA (Clean Water Act)

Section 311 Hazardous Substances (40 CFR 117.3)

Sulfuric acid, Iron (2) salt (1:1), Heptahydrate

Reportable quantity: 1000 lbs.

CERCLA

(40 CFR 302.4)

Sulfuric acid, Iron (2) salt (1:1), Heptahydrate

Reportable quantity: 1000 lbs.

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

HMIS Rating

Ferrous sulfate	
HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	

NFPA Rating



SECTION 16: Other information

No data available.