

Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: FerroVer ® Iron Reagent Powder Pillows
Catalog Number: 2105769

Hach Company
P.O.Box 389
Loveland, CO USA 80539
(970) 669-3050

Emergency Telephone Numbers:
(Medical and Transportation)
(303) 623-5716 24 Hour Service
(515)232-2533 8am - 4pm CST

MSDS Number: M00135
Chemical Name: Not applicable
CAS No.: Not applicable
Chemical Formula: Not applicable
Chemical Family: Not applicable
Hazard: May cause allergic reaction. May cause irritation.
Date of MSDS Preparation:
Day: 14
Month: October
Year: 1998

2. COMPOSITION / INFORMATION ON INGREDIENTS

Sodium Thiosulfate

CAS No.: 10102-17-7
TSCA CAS Number: 7772-98-7
Percent Range: 45.0 - 55.0
Percent Range Units: weight / weight
LD50: Oral rat LD50 > 8 gm/kg
LC50: None reported
TLV: Not established
PEL: Not established
Hazard: May cause irritation.

1,10-Phenanthroline-p-toluenesulfonic Acid Salt

CAS No.: 92798-16-8
TSCA CAS Number: 92798-16-8
Percent Range: 1.0 - 5.0
Percent Range Units: weight / weight
LD50: None reported
LC50: None reported
TLV: Not established
PEL: Not established
Hazard: May cause irritation. Toxic properties unknown.

Sodium Hydrosulfite

CAS No.: 7775-14-6
TSCA CAS Number: 7775-14-6
Percent Range: 15.0 - 25.0

Target Organs: None reported

Ingestion: May cause: allergic respiratory reaction gastrointestinal irritation circulatory disturbances central nervous system depression Very large doses may cause: abdominal pain diarrhea vomiting depression

Target Organs: None reported

Inhalation: May cause: respiratory tract irritation allergic respiratory reaction difficult breathing coughing rapid pulse and respirations chest pain blood pressure changes sweating flushing hives

Target Organs: None reported

Medical Conditions Aggravated: Sulfites are strong sensitizers. Inhalation and ingestion may cause allergic respiratory reactions in asthmatics. Persons with respiratory conditions should take special care when working with products that contain sulfites.

Chronic Effects: Chronic overexposure may cause allergic respiratory reactions

Cancer / Reproductive Toxicity Information:

This product does NOT contain any OSHA listed carcinogens.

An ingredient of this mixture is: IARC Group 3: Non-classifiable
Metabisulfites

This product does NOT contain any NTP listed chemicals.

Additional Cancer / Reproductive Toxicity Information: Contains: an experimental mutagen.
Toxicologically Synergistic Products: None reported

4. FIRST AID

Eye Contact: Immediately flush eyes with water for 15 minutes. Call physician.

Skin Contact (First Aid): Wash skin with soap and plenty of water.

Ingestion (First Aid): Give 1-2 glasses of water. Do not induce vomiting. Call physician immediately.

Inhalation: Give artificial respiration if necessary. Remove to fresh air. Call physician.

5. FIRE FIGHTING MEASURES

Flammable Properties: Can burn in fire, releasing toxic vapors.

Flash Point: Not applicable

Method: Not applicable

Flammability Limits:

Lower Explosion Limits: Not applicable

Upper Explosion Limits: Not applicable

Autoignition Temperature: Not determined

Hazardous Combustion Products: Toxic fumes of: sulfur oxides, sodium monoxide, carbon monoxide, carbon dioxide.

Fire / Explosion Hazards: May react violently with: organic materials, aluminum / aluminum compounds, strong oxidizers, combustible materials, strong acids, water

Static Discharge: None reported.

Mechanical Impact: None reported

Extinguishing Media: Carbon dioxide, Alcohol foam, Dry chemical.

Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Spill Response Notice:

Water: Soluble
Acid: Soluble
Other: Not determined
Metal Corrosivity:
Steel: 0.106 in/yr
Aluminum: 0.003 in/yr

10. STABILITY / REACTIVITY

Chemical Stability: Stable when stored under proper conditions.
Conditions to Avoid: Exposure to light. Excess moisture. Extreme temperatures.
Reactivity / Incompatibility: Incompatible with: combustible materials, organic materials, oxidizers, aluminum, acids, sodium nitrite, sodium chlorite.
Hazardous Decomposition: Heating to decomposition releases toxic and/or corrosive fumes of: sulfur oxides, carbon monoxide, carbon dioxide.
Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Product Toxicological Data:
LD50: None reported
LC50: None reported
Dermal Toxicity Data: None reported
Skin and Eye Irritation Data: Erythema at 3 minutes, 1 hour, 4 hours, 24 hours, 48 hours, 72 hours = 0.
Edema at 3 minutes, 1 hour, 4 hours, 24 hours, 48 hours, 72 hours = 0.
Mutation Data: None reported
Reproductive Effects Data: None reported
Ingredient Toxicological Data: Sodium Hydrosulfite Oral rat LD50 > 500 mg/kg; Sodium Thiosulfate Oral rat LD50 > 8 g/kg; Sodium Citrate Oral rat LD50 > 8 g/kg

12. ECOLOGICAL INFORMATION

Product Ecological Information: --
No ecological data available for this product.
Ingredient Ecological Information: Sodium Metabisulfite: 120 ppm / 24, 48 & 96 hours / mosquito fish / TLM / fresh water (converting bisulfite figure to metabisulfite); Sodium Thiosulfate: Aquatic toxicity: 24,000 mg / 1 / 96 hours / mosquito-fish / TLM / turbid water at 22 ° - 24° C.

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: Not applicable
Special Instructions (Disposal): Work in an approved fume hood. Dilute to 3 to 5 times the volume with cold water. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Open cold water tap completely, slowly pour the reacted material to the drain. Allow cold water to run for 5 minutes to completely flush the system.
Empty Containers: Rinse three times with an appropriate solvent. Dispose of empty container as normal trash.

16. OTHER INFORMATION

Intended Use: Iron determination

References: CCINFO MSDS/FTSS. Canadian Centre for Occupational Health and Safety. Hamilton, Ontario Canada: 30 June 1993. NIOSH Registry of Toxic Effects of Chemical Substances, 1985-86. Cincinnati: U.S. Department of Health and Human Services, April, 1987. Outside Testing. Vendor Information. Gosselin, R. E. et al. Clinical Toxicology of Commercial Products, 5th Ed. Baltimore: The Williams and Wilkins Co., 1984. Sax, N. Irving. Dangerous Properties of Industrial Materials, 7th Ed. New York: Van Nostrand Reinhold Co., 1989. Fire Protection Guide on Hazardous Materials, 10th Ed. Quincy, MA: National Fire Protection Association, 1991. Technical Judgment. In-house information. TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332-2983.

Legend:

NA - Not Applicable	w/w - weight/weight
ND - Not Determined	w/v - weight/volume
NV - Not Available	v/v - volume/volume

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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