

Material Safety Data Sheet



Product: FERROCLEAN
Date of Preparation : 12-21-07

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: FERROCLEAN
Emergency Response No. (800) 255-3924 (Chemtel)
Manufacturer: U.S. Water Services
330 South Cleveland St
Cambridge, MN 55008

Section 2 - Composition/Information on Ingredients

Ingredient Name	CAS Number	% (wt)	NIOSH REL	Other
1-Hydroxyethylene-1,1-diphosphonic acid	2809-21-4	5-10	Not Established	None
Trisodium phosphate	10101-89-0	5-10	Not Established	None
Sodium Hydroxide	1310-73-2	2.9	Ceiling 2 mg/m ³	None
Sodium Bisulfite	7631-90-5	1-2	TWA 5 mg/m ³	None

Section 3 - Hazards Identification

HMIS	H	2	F	1	R	1	PPE	C	+Sec.8
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Emergency Overview + + + + +

Potential Health Effects

Primary Entry Routes: Eye, Skin contact, Respiratory.
Acute Effects: May cause eye, skin and respiratory irritation.
Inhalation: May cause irritation, nausea, vomiting or breathing difficulty.
Eye: May cause irritation upon direct contact.
Skin: May cause irritation upon direct contact in sensitive individuals.
Ingestion: Like any product not designed to be eaten, may cause stomach distress or vomiting if ingested in great quantity.
Carcinogenicity: IARC, NTP, and OSHA do not list this product or its components as a carcinogen.
Medical Conditions Aggravated by Long-term Exposure: No specific information provided on compounds at date of issue.
Chronic Effects: None known

Section 4 - First Aid Measures

Inhalation: If inhaled and irritation or difficulty breathing occurs, remove to fresh air. Seek medical aid if irritation persists.
Eye Contact: Flush eyes with large amounts of water for 15 minutes. Seek medical attention immediately. After first aid, get appropriate in-plant, paramedic or community medical support.
Skin Contact: In case of contact, flush skin with plenty of water and remove contaminated clothing. Seek medical aid if irritation persists. Wash clothing before reuse.
Ingestion: If swallowed, seek medical advice. Give large quantities of water. Never give anything by mouth to an unconscious person.

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Section 5 - Fire-Fighting Measures

Flash Point: Not flammable

Flash Point Method: Pensky Marten Closed Cup

Burning Rate: Not applicable

Auto-ignition Temperature: Does not burn.

LEL: Not determined

UEL: Not determined

Extinguishing Media: Material is not combustible. Use extinguishing media appropriate to surrounding materials.

Unusual Fire or Explosion Hazards: None known.

Hazardous Combustion Products: Oxides of carbon.

Fire-Fighting Instructions: Cool containers/exposed structures with water spray.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full-face piece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill/Leak Procedures: Contain spill. Follow all Federal, State and local regulations.

Small Spills: Absorb spill with vermiculite. Small amounts may be washed to sanitary sewer.

Large Spills: Follow all Federal, State and local regulations.

Containment: For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways. Absorb spill with vermiculite, oil dry or similar non-reactant absorbent.

Cleanup: Accumulate the absorbed materials and dispose of according to federal, state and local regulations. Follow applicable OSHA regulations (29 CFR 1910.120)

Section 7 - Handling and Storage

Handling Precautions: Use the recommended safety controls and personal protective equipment as outlined. Fully review all data before handling of the material itself. Avoid contact with skin or eyes. Avoid breathing dust or mist. Keep from contact with clothing

and other combustible materials. Observe good personal hygiene and housekeeping practices.

Storage Requirements: KEEP OUT OF REACH OF CHILDREN. Store in closed container away from incompatible materials, heat

and sources of ignition.

Regulatory Requirements: Store materials according to all local, state and federal guidelines that are established for corrosive materials.

Section 8 - Exposure Controls/Personal Protection

Engineering Controls: No special recommendations.

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Administrative Controls: No special recommendations.

Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessel, or storage tanks), wear an SCBA. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

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Section – 9 Physical and Chemical Properties

Physical State: Liquid
Appearance and Odor: Clear colorless, mild odor
Vapor Pressure: Same as water
Vapor Density (Air=1): Same as water
Specific Gravity (H₂O=1, at 4°C): 9.2 lb/gal
pH: 6.5
Water Solubility: Complete
Other Solubilities: Not tested for the blend
Boiling Point: 212F
Freezing/Melting Point: Not determined
% Volatile: Not determined
Evaporation Rate: Not determined

Section 10 - Stability and Reactivity

Stability: This product is stable at room temperature in closed containers under normal storage and handling conditions. However, avoid temperature extremes.
Polymerization: Hazardous polymerization will not occur.
Chemical Incompatibilities: Keep away from oxidizers and strong acids.
Conditions to Avoid: Contact with any reactive material of any sort. Extreme temperatures
Hazardous Decomposition Products: Oxides of sulfur.

Section 11 - Toxicological Information

Acute Toxicity
See Section 3

Chronic Effects: No chronic effects are known for this product.

Carcinogenicity: No carcinogenic effects are known to be applicable for the formulation components of this product.
Mutagenicity: No mutagenic effects are known to be applicable for the formulation components of this product.
Teratogenicity: No studies have been performed.

**See NIOSH, RTECS, for additional toxicity data.

Section 12 - Ecological Information

Eco-toxicity: No specific data is available on this product. However, for the chemical components which make up this product, there may be specific data available and in the public domain. Consult the data available for each individual raw material component.
Environmental Fate: Ground and/or water
Environmental Degradation: No information available.
Soil Absorption/Mobility: No studies have been conducted for this blend

Section 13 - Disposal Considerations

Disposal: Review federal, state and local government requirements prior to disposal.
Disposal Regulatory Requirements: Follow all Federal, State and local regulations.
Container Cleaning and Disposal: Review federal, state and local government requirements prior to disposal.

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Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name: Corrosive Liquid N.O.S. (Contains: Sodium Hydroxide, Sodium Bisulfite)

Hazard Class: 8

ID No.: UN 1760 PG III

Label Code: Corrosive

HMS Label Code: 211C

Shipping Notations:

Packaging: Exceptions-173.154
Passenger Aircraft Limitations-SL
Cargo Aircraft Limitations-60L

Section 15 - Regulatory Information

EPA Regulations:

RCRA Hazardous Waste Classification (40 CFR 261.22): Corrosivity
RCRA Hazardous Waste Number (40 CFR 261.22): D002

CERCLA Reportable Quantity (RQ): 3400 lbs

SARA TITLE III - CERCLA LIST: This product contains the following CERCLA Listed hazardous substance.

Sodium Hydroxide CAS#1310-73-2 Percent 2.9

Sodium Bisulfite CAS# 7631-90-5 Percent 2

Sodium Phosphate CAS# 10101-89-0 Percent 5

SARA TITLE III-TOXIC CHEMICAL LIST: This product does not contain any chemicals subject to routine annual toxic chemical release reporting.

SARA TITLE III-EXTREMELY HAZARDOUS SUBSTANCE: This product does not contain any extremely hazardous substances subject to the emergency planning requirements.

Section 16 - Other Information

Prepared By: D Erickson, Director R&D

Revision Notes:

Additional Hazard Rating Systems:

Disclaimer:

USER'S RESPONSIBILITY

The information and recommendations contained herein cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. It is your responsibility to use this information to develop appropriate work practice guidelines and employee instructional programs for your operation.

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