



Ferric Sulfate, 60%

Safety Data Sheet

Safety Data Sheet #: CHE-70005

Revision Date: October 24, 2023

Version:8.0

1. Identification

Product identifier

Product Identity

Ferric Sulfate 60%

Other means of identification

Ferric Sulfate, 60%

Product Form

Mixture

Relevant identified uses of the substance or mixture and uses advised against

Municipal and industrial water and wastewater treatment for the removal of turbidity, color, suspended solids and phosphorus. Sludge compaction and volume reduction. Lagoon treatment. Oily wastewater clarification and dissolved air flotation. Emulsion breaking.

Restrictions on use:

Not available

Details of the supplier of the safety data sheet

Company Name

Chemtrade Logistics Inc. (Canada)
155 Gordon Baker Road Suite 300
Toronto, Ontario M2H 3N5

Chemtrade Logistics Inc. (US)
90 East Halsey Road, Suite 200
Parsippany, NJ 07054

Emergency

24 hour Emergency Telephone No.

Chemtrade Emergency Contact: (866) 416-4404
(Toronto)

CHEMTREC +1-800-424-9300

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

Customer Service:

For SDS Info: (416) 496-5856
www.chemtradelogistics.com

2. Hazard(s) identification

May produce explosive hydrogen gas on contact with incompatibilities or upon thermal decomposition

Classification of the substance or mixture

Metal corrosion; H290

May be corrosive to metals.

Acute toxicity(oral), category 4; H302

Harmful if swallowed.

Skin corrosion/irritation category 2; H315

Causes skin irritation.

Serious eye damage / eye irritation, category 1;
H318

Causes serious eye damage.

Label elements**Danger**

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

[Prevention]:

P234 Keep only in original container.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves, eye protection, and face protection.

[Response]:

P330 IF SWALLOWED: Rinse mouth.

P301+312 IF SWALLOWED: Call a POISON CENTER, doctor or physician if you feel unwell.

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER, doctor or physician.

P312 Call a POISON CENTER, doctor or physician if you feel unwell.

P332+313 If skin irritation occurs: Get medical attention.

P362+364 Take off contaminated clothing and wash it before reuse.

P390 Absorb spillage to prevent material damage.

[Storage]:

P406 Store in a corrosive resistant, container with a resistant inner liner.

[Disposal]:

P501 Dispose of contents or container in accordance with local and national regulations.

2.3. Other hazards

This product contains no PBT/vPvB chemicals.

This product contains no endocrine disrupting chemicals.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the Hazardous Products Regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Water CAS Number: 7732-18-5	30 - 55	Not classified	No additional notes
Ferric sulfate CAS Number: 0010028-22-5 Synonyms: Sulfuric acid, iron(3+) salt (3:2) as Fe2(SO4)3•9H2O (Dry Ferric Sulfate)	45 - 70	Acute toxicity(oral), category 4;H302 Skin corrosion/irritation category 2;H315 Serious eye damage / eye irritation, category 1;H318 Metal corrosion;H290	No additional notes

The actual concentration or concentration range is withheld as a trade secret.

*PBT/vPvB - PBT-substance or vPvB-substance.

The full texts of the phrases are shown in Section 16.

The specific chemical identity and/or exact percentage of composition are withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200].

Section 4. First aid measures

Description of first aid measures

- General** In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
- Inhalation** Remove to fresh air, keep patient warm and at rest. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
- Eyes** Irrigate copiously with clean water for at least 30 minutes, holding the eyelids apart and seek medical attention. Remove contact lenses, if present and easy to do. Continue rinsing.
- Skin** Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser. Drench affected area with water for at least 30 minutes. Obtain medical attention if irritation develops or persists.
- Ingestion** If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Overview

Acute Health Effects Harmful if swallowed. Causes skin irritation and eye damage. May be corrosive to the respiratory tract.
 EYE: Causes permanent damage to the cornea, iris, or conjunctiva. (IMMEDIATE)
 SKIN: Causes irritation (IMMEDIATE) which may progress to chemical burns.
 INHALATION: May be corrosive to the respiratory tract. (IMMEDIATE)
 INGESTION: This material is harmful orally and can cause adverse health effects or death in significant amounts. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract (IMMEDIATE). Harmful if swallowed. Causes severe skin irritation and eye damage.

Indication of Any Immediate Medical Attention and Special Treatment Needed: If exposed or concerned, get medical advice and attention.

See section 2 for further details.

Eyes	Causes serious eye damage.
Skin	Causes skin irritation.
Ingestion	Harmful if swallowed.
Chronic effects	Not available, none known.

Section 5. Fire-fighting measures

Extinguishing media

Suitable Extinguishing Media: Water spray, dry chemical, foam, carbon dioxide.

Unsuitable extinguishing media: Do not use water jet, or heavy water stream. Use of heavy stream of water may spread fire.

Special hazards arising from the substance or mixture

Hazardous decomposition: When heated, emits highly toxic and corrosive fumes of hydrogen compounds and hydrogen gas.

Keep only in original container.

Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full-face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean up immediately after fire. No smoking.

Fire Hazard: Product is not flammable but may burn at high temperatures.

Hazardous Combustion Products: Sulfur oxides, corrosive vapours; sulfur oxides are toxic.

Explosion Hazard: Product is not explosive. Contact with metallic substances may release flammable hydrogen gas.

Firefighting Instructions: Do not enter fire area without proper protective equipment, including respiratory protection. Use water spray or fog for cooling exposed containers. Remove containers from fire area if this can be done without risk. **Exercise caution when fighting any chemical fire.**

Hazardous reactions will not occur under normal conditions.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

ERG Guide No. 154

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General Measures: Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid contact with eyes, skin and clothing. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. See Section 8.

Use good personal hygiene practices. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Promptly remove soiled clothing and wash thoroughly before reuse.

Use only outdoors or in a well-ventilated area. Do not breathe mist, spray, and vapours.

Do not get in eyes, on skin, or on clothing. Use appropriate personal protection equipment (PPE). Wear protective gloves, eye protection, face protection (refer to section 8 for more details).

Environmental precautions

Prevent entry to sewers and public waters. Avoid release to environment.

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

Methods and material for containment and cleaning up

Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Ventilate area.

Methods for Clean up: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions. Ventilate area. Contain, dilute cautiously with water, and neutralize with soda ash or lime.

Section 7. Handling and storage
--

Precautions for safe handling

Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from extremely high or low temperatures and incompatible materials. Store in original container or corrosive resistant and/or lined container.

Use good personal hygiene practices. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Promptly remove soiled clothing and wash thoroughly before reuse.

Use only outdoors or in a well-ventilated area. Do not breathe mist, spray, and vapours.

Do not get in eyes, on skin, or on clothing. Use appropriate personal protection equipment (PPE). Wear protective gloves, eye protection, face protection (refer to section 8 for more details).

See section 2 for further details. - [Prevention]:

Conditions for safe storage, including any incompatibilities

Store in a dry, cool and well-ventilated place. Containers which are opened should be properly resealed and kept upright to prevent leakage. Keep container closed when not in use. Store in a dry, cool place.

Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Comply with applicable regulations.

Incompatible materials: Strong acids, strong bases, strong oxidizers. Alkalis. Metals.

See section 2 for further details. - [Storage]:

Specific end use(s)

Municipal and industrial water and wastewater treatment for the removal of turbidity, color, suspended solids and phosphorus. Sludge compaction and volume reduction. Lagoon treatment. Oily wastewater clarification and dissolved air flotation. Emulsion breaking.

Restrictions on use:

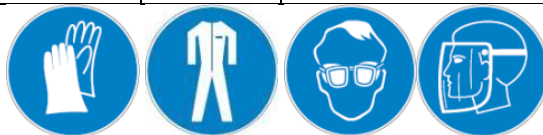
Not available

Section 8. Exposure controls / personal protection

Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0010028-22-5	Ferric sulfate	ACGIH	No Established Limit
		OSHA	No Established Limit
		NIOSH	No Established Limit
		Alberta	No Established Limit
		British Columbia	No Established Limit
		Manitoba	No Established Limit
		New Brunswick	No Established Limit
		Newfoundland and Labrador	No Established Limit
		Nova Scotia	No Established Limit
		Northwest Territories	No Established Limit
		Nunavut	No Established Limit
		Ontario	No Established Limit
		Prince Edward Island	No Established Limit
		Quebec	No Established Limit
		Saskatchewan	No Established Limit
Yukon	No Established Limit		



Exposure controls

Respiratory

Use NIOSH/MSHA approved respirator, following manufacturer's recommendations when concentrations exceed permissible exposure limits.

Eyes

Chemical safety goggles and face shield.

Skin

Chemical resistant clothing such as coveralls/apron and boots should be worn. Chemical impervious gloves required.

Engineering Controls

Exposure Controls Appropriate Engineering Controls: Emergency eyewash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Other Work Practices

Put on appropriate personal protective equipment. Chemically compatible gloves, protective clothing, chemical resistant safety goggles, face shield. Insufficient ventilation: wear respiratory protection. Use good personal hygiene practices. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Promptly remove soiled clothing and wash thoroughly before reuse.

Use only outdoors or in a well-ventilated area. Do not breathe mist, spray, and vapours.

Do not get in eyes, on skin, or on clothing. Use appropriate personal protection

equipment (PPE). Wear protective gloves, eye protection, face protection (refer to section 8 for more details).

See section 2 for further details.

Section 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State	liquid
Color	Reddish brown
Odor	Odorless
Melting point / freezing point	less than -50 °C (< -58 °F)
Initial boiling point and boiling range	No available information
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: No available information Upper Explosive Limit: No available information
Flash Point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	No available information
pH	<1
Viscosity (cSt)	No available information
Solubility in Water	Completely Soluble in water.
Partition coefficient n-octanol/water (Log Kow)	No available information
Vapour pressure (Pa)	No available information
Relative Density	No available information
Vapour Density	No available information
Evaporation rate (Ether = 1)	No available information
Specific Gravity	1.50 - 1.62
Density (lbs/US gal)	12.5 - 13.5

Other information
No other relevant information.

Section 10. Stability and reactivity

Reactivity

Hazardous Polymerization will not occur.

Chemical stability

Stable under recommended handling and storage conditions (see section 7).

Possibility of hazardous reactions

May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas. May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction.

Conditions to avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials.

Incompatible materials

Strong acids, strong bases, strong oxidizers. Alkalis. Metals.

Hazardous decomposition products

When heated, emits highly toxic and corrosive fumes of hydrogen compounds and hydrogen gas.

Section 11. Toxicological information

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation vapour LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Product Acute Toxicity Estimates	714	2857	NA	NA	NA

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation vapour LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Ferric sulfate - (10028-22-5)	500.00, Rat - Category: 4	2,000.00, Rat - Category: 4	No data available.	No data available.	No data available.

Carcinogen Data

CAS No.	Ingredient	Source	Value
0010028-22-5	Ferric sulfate	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
		ACGIH	No Established Limit

Classification	Category	Hazard Description
Acute toxicity (oral)	4	Harmful if swallowed.
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Possible routes of entry:

Symptoms and effects, both acute and delayed:

Acute Health Effects: Harmful if swallowed. Causes skin irritation and eye damage. May be corrosive to the respiratory tract.

EYE: Causes permanent damage to the cornea, iris, or conjunctiva. (IMMEDIATE)
SKIN: Causes irritation (IMMEDIATE) which may progress to chemical burns.
INHALATION: May be corrosive to the respiratory tract. (IMMEDIATE)
INGESTION: This material is harmful orally and can cause adverse health effects or death in significant amounts. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract (IMMEDIATE). Harmful if swallowed. Causes severe skin irritation and eye damage.

Indication of Any Immediate Medical Attention and Special Treatment Needed: If exposed or concerned, get medical advice and attention.

Most likely route(s) of exposure Skin, Eyes

Eyes Causes serious eye damage.
Skin Causes skin irritation.
Ingestion Harmful if swallowed.
Chronic effects Not available, none known.

Section 12. Ecological information

Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Ferric sulfate - (10028-22-5)	133.00, Gambusia affinis	12.39, Daphnia longispina	No data available.

Persistence and degradability

There is no data available on the preparation itself.

Bioaccumulative potential

No available information

Mobility in soil

No available information

Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

Other adverse effects

No available information

Section 13. Disposal considerations

Waste treatment methods

Dispose of waste material in accordance with all local, regional, federal, provincial, state, territorial and international regulations.

Ecology - Waste Materials: Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

Section 14. Transport information



Classification Method: Classified as per Part 2, Sections 2.1 - 2.8 of the Transportation of Dangerous Goods Regulations.

	DOT / TDG (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
UN number	UN3264	UN3264	UN3264
UN proper shipping name	UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Contains Ferric Sulfate), 8, III	Corrosive liquid, acidic, inorganic, n.o.s. (Contains Ferric Sulfate)	Corrosive liquid, acidic, inorganic, n.o.s. (Contains Ferric Sulfate)
Transport hazard class(es)	TDG Hazard Class: 8 Sub Class: Not Applicable	IMDG: 8 Sub Class: Not Applicable	Air Class: 8 Sub Class: Not Applicable
Packing group	III	III	III
Environmental hazards	Marine Pollutant: No;		
Special precautions for user	No available information		

Section 15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

NFPA Ranking

Health (blue) :3
 Fire (red) :0
 Reactivity (yellow) :0
 Special (white) :ACID



This product has been classified in accordance with the hazard criteria Hazardous Products Regulations (SOR/2015-17) and the SDS contains all of the information required by those regulations.

Toxic Substance Control Act (TSCA):

Ferric sulfate (Present)
 Water (Present)

EPCRA 311/312 Chemicals and RQs (lbs):

Ferric sulfate (1,000.00)

Canadian Domestic Substance List (DSL):

Ferric sulfate
 Water

Canadian Non-Domestic Substance List (NDSL):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Ferric sulfate

Pennsylvania RTK Substances (>1%):

Ferric sulfate

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:

This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Chemical Name (CAS Number)	US TSCA	Australia AICS	Korea ECL	EU EINECS	EU ELINCS	EU SVHC	EN NLP	Mexico INSQ
Ferric sulfate (0010028-22-5)	Yes	Yes	Yes	Yes	No	No	No	Yes

Chemical Name (CAS Number)	China IECSC	Japan ENCS	Japan ISHL	Japan PDSCL	Japan PRTR 1	Japan PRTR 2	Philippines PICCS	New Zealand NZIOC
Ferric sulfate (0010028-22-5)	Yes	Yes	No	No	No	No	Yes	Yes

Section 16. Other information

Revision Date 10/24/2023

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products.

Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

Disclaimer: The information presented herein is supplied as a guide to those who handle or use this product. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

Revision Summary

Section :	Modification
2	Updated skin corrosion classification
4	Updated language
11	Updated information

Handle product with due care and avoid unnecessary contact. This information is supplied under U.S. OSHA'S "Right to Know" (29 CFR 1910.1200) and Canada's WHMIS regulations. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. The information contained herein is based on data available to us and is believed to be true and accurate but it is not offered as a product specification. No warranty, expressed or implied, regarding the accuracy of this data, the hazards connected with the use of the product, or the results to be obtained from the use thereof, is made and Chemtrade and its affiliates assume no responsibility. Chemtrade is a member of the CIAC (Chemistry Industry Association of Canada) and adheres to the codes and principles of Responsible Care™.

