

Ferrous Ammonium Sulfate

SECTION 1. IDENTIFICATION

Product Identifier	Ferrous Ammonium Sulfate
Other Means of Identification	Ammonium Ferrous Sulfate, Ferrous Ammonium Sulfate ACS, Mohr's Salt
Product Code(s)	FE5610, FE5620
Product Family	Inorganic Solid
Recommended Use	Laboratory and industrial use.
Restrictions on Use	None known.
Supplier Identifier	Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995
Emergency Phone No.	CANUTEC CANADA, 613-996-6666, 24 Hours
SDS No.	0388
Date of Preparation	February 22, 2016

SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

Classification

Acute toxicity (Oral) - Category 5; Skin irritation - Category 2; Eye irritation - Category 2B; Specific target organ toxicity (single exposure) - Category 3

Label Elements



Signal Word:
Warning

Hazard Statement(s):

Causes serious eye irritation.
Causes skin irritation.
May cause respiratory irritation.

Precautionary Statement(s):

Prevention:

Avoid breathing dust/fume/gas/mist/vapours/spray.
Do not get in eyes, on skin, or on clothing.
Wear protective gloves/protective clothing/eye protection/face protection.
Use only outdoors or in a well-ventilated area.

Response:

IF SWALLOWED: Immediately call a POISON CENTRE/doctor/
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance:

Chemical Name	CAS No.	%	Other Identifiers
Ammonium iron(II) sulfate, hexahydrate (2:1:2:6)	7783-85-9	> 99	Ammonium Ferrous Sulfate, Mohr's Salt

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor.

Skin Contact

Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. If skin irritation occurs, get medical advice or attention.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Do not induce vomiting. Rinse mouth with water. Call a Poison Centre or doctor if you feel unwell.

First-aid Comments

All first aid procedures should be periodically reviewed by a doctor familiar with the material and its condition of use in the workplace.

Most Important Symptoms and Effects, Acute and Delayed

None known.

Immediate Medical Attention and Special Treatment

Special Instructions

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Product

Heating increases the release of toxic vapour.

In a fire, the following hazardous materials may be generated: corrosive, oxidizing nitrogen oxides; corrosive sulfur oxides.

Special Protective Equipment and Precautions for Fire-fighters

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Fight fire from a safe distance or a protected location. Approach fire from upwind to avoid hazardous vapours or gases. Knock down vapours or gases with water fog or fine water spray. For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles. Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours.

A full-body encapsulating chemical protective suit with positive pressure SCBA may be necessary. Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Emergency responders: use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Remove or isolate incompatible materials as well as other hazardous materials.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Do not get in eyes, on skin or on clothing. Avoid breathing in this product. Only use where there is adequate ventilation. Prevent accidental contact with incompatible chemicals. Wash hands thoroughly after handling this material.

Conditions for Safe Storage

Store in an area that is: well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity). Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity). Store in a closed container. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Ammonium iron(II) sulfate, hexahydrate (2:1:2:6)	1.0 mg/m ³		1 mg/m ³			

Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Provide eyewash in work area, if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

No specific guidelines are available. Contact chemical manufacturer/supplier for advice.

Respiratory Protection

Wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance Light green powder.

Odour Odourless

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Odour Threshold	Not available
pH	3 - 5 (5% solution)
Melting Point/Freezing Point	100 °C (212 °F) (melting); Not available (freezing)
Initial Boiling Point/Range	Not available
Flash Point	Not applicable
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	1.86
Solubility	Slightly soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not applicable
Decomposition Temperature	100 °C (212 °F)
Viscosity	Not available (kinematic); Not available (dynamic)
Other Information	
Physical State	Solid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

High temperatures. Generation of dust. Light. Exposure to air. Temperatures above 100.0 °C (212.0 °F)

Incompatible Materials

Strong oxidizing agents (e.g. perchloric acid), strong acids (e.g. hydrochloric acid), strong bases (e.g. sodium hydroxide).

Hazardous Decomposition Products

Corrosive, flammable ammonia; corrosive sulfur oxides; corrosive, oxidizing nitrogen oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Ammonium iron(II) sulfate, hexahydrate (2:1:2:6)	Not available	3250 mg/kg (rat)	Not available

Skin Corrosion/Irritation

There is limited evidence of mild irritation.

Serious Eye Damage/Irritation

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There is limited evidence of mild irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May cause nose and throat irritation.

Ingestion

No information was located.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

If swallowed: may cause irritation of the respiratory system. May cause respiratory tract injury.

Respiratory and/or Skin Sensitization

No information was located.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Ammonium iron(II) sulfate, hexahydrate (2:1:2:6)	Not Listed	Not Listed	Not Listed	Not Listed

Reproductive Toxicity

Development of Offspring

No information was located.

Sexual Function and Fertility

No information was located.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

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Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Not listed on the DSL or NDSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

Not listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

NFPA Rating	Health - 2	Flammability - 0	Instability - 1
SDS Prepared By	Alphachem Limited		
Phone No.	(905)-821-2995		
Date of Preparation	February 22, 2016		
Date of Last Revision	March 30, 2016		
References	CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).		
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