

SAFETY DATA SHEET

Ferric Sulphate Solution

SECTION 01 - IDENTIFICATION

Product identifier	Ferric Sulphate Solution
Other means of identification	Iron Sulphate; Ferric sulfate; Sulfuric acid, iron(3+) salt (3:2)
Recommended use of chemical	Reduction of turbidity, colour, hydrogen sulphide, phosphorus, organics, oils and greases, and metals (such as arsenic) in water and waste water. Used in processes such as sludge conditioning, lime softening, direct filtration and air flotation.
Supplier name	Ixom Operations Pty Limited trading as LogiChem
Supplier address	Lot 33 Bulong Road Parkeston-Kalgoorlie, Australia PO Box 878 Kalgoorlie WA 6433 Australia
Supplier phone	1800 033 111 / Int. +61 (0) 3 9663 2130
24 Hour emergency phone	1800 033 111

SECTION 02 - HAZARD(S) IDENTIFICATION

Classification	Skin Corrosion/Irritation - Category 1B
Signal word	Danger
Hazard statements	H314 - Causes severe skin burns and eye damage.
Precautionary statements	<p>Prevention</p> <p>P260 - Do not breathe dusts or mists. P264 - Wash hands and contaminated body thoroughly after handling. P280 - Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Response</p> <p>P301 / P330 / P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 / P361 / P353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. P304 / P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 / P351 / P338 - 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 CENTRE or doctor/physician. P321- Specific treatment (see First Aid Measures on Safety Data Sheet). P363 - Wash contaminated clothing before reuse.</p> <p>Storage</p> <p>P405 - Store locked up.</p> <p>Disposal</p> <p>P501 - Dispose of contents/container in accordance with local / regional / national / international regulations.</p>



SECTION 03 - COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Components</u>	<u>Cas No:</u>	<u>Proportion % w/w</u>
Ferric sulphate	10028-22-5	30.0-50.0%
Water	7732-18-5	Balance %

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SECTION 04 – FIRST AID MEASURES

Description of necessary first aid measures	<p>Eye – Immediately hold eyelids open and was continuously with water for at least 15 minutes. Seek medical attention if irritation persists.</p> <p>Ingestion - DO NOT induce vomiting. Rinse or wash mouth with plenty of water after which, if victim is conscious, induce copious drinking water. Seek medical attention.</p> <p>Inhalation –Not generally a health risk via this route. Ensure victim is removed from exposure area, clothing is loosened or removed, patient is comfortable and warm.</p> <p>Skin - Remove contaminated shoes and clothing and laundry before reuse. Flush affected areas with plenty of water.</p>
Medical attention / special treatment	Treat symptomatically. Material is strongly acidic and corrosive. Can cause corneal burns.
Symptoms caused by exposure	Not available

SECTION 05 – FIRE FIGHTING MEASURES

Suitable extinguishing media	Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).
Specific hazards arising from the chemical	Solution is non-flammable but under high temperatures sulphur trioxide could be evolved.
Special protective equipment & precautions for fire fighters	<p>Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.</p> <p>Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves) or chemical splash suit. Please note: Structural fire fighters uniform will provide limited protection.</p>

SECTION 06 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	<p>Shut off all possible sources of ignition. Avoid accidents, clean up immediately. Increase ventilation. Avoid walking through spilled product may be slippery when spilt. Use clean, non-sparking tools and equipment. Personnel involved in the clean up should wear full protective clothing as listed in Section 08.</p>
Environmental precautions	Do not allow product to reach drains, sewers or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Authority.
Methods and materials for containment and cleaning up.	Soak up spilled product using absorbent non-combustible material such as sand or soil. When saturated collect material, transfer to suitable, labelled, container and dispose of promptly as hazardous waste.

SECTION 07 – HANDLING AND STORAGE

Precautions for safe handling	<p>Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product vapours. Avoid prolonged or repeated exposure. Operations should be carried out in an efficient fume hood or equivalent system. Remove contaminated clothing and wash before reuse. Discard contaminated shoes. Keep away from combustible material. Empty containers pose a fire risk, evaporate residue under a fume hood. Chemicals should be used only by those trained in handling potentially hazardous materials.</p>
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Conditions for Safe Storage (Including Any Incompatibles)	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Protect from direct sunlight, moisture and static discharges. Do NOT allow material to dry out. Avoid heat, freezing and ultra- violet light. Keep away from food, drink, and animal feeding stuffs.
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SECTION 08 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters – exposure standards, biological monitoring	No value assigned for this specific material by Safe Work Australia for constituent(s): Iron salts, soluble (as Fe): 8hr TWA = 1 mg/m ³
Appropriate engineering controls	Ensure adequate ventilation to maintain exposure levels to a minimum. Solution is acidic and stainless, rubber, PVC, polyethylene, polypropylene and GRP materials should be used to handle the product.
Personal protective equipment (PPE)	<p>Clothing – Protective overalls and splash apron (AS3765/2210).</p> <p>Eyes – Chemical splash goggles or safety glasses with side shields and a full-face shield as appropriate should be used (AS1336/1337).</p> <p>Footwear – Protective rubber boots (AS3765/2210).</p> <p>Gloves – Wear elbow-length gloves of impervious material (AS2161)</p> <p>Other - RESPIRATOR: If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable mist filter should be used (AS1715/1716).</p>

SECTION 09 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Red-Brown Viscous Liquid
Odour	Odourless
Odour threshold	Not available
pH	<1
Melting point/freezing point	-15°C to -25°C
Specific gravity (water = 1)	1.45 – 1.6 @ 25°C
Boiling point and boiling range	103°C -105°C
Flash point	Not applicable
Evaporation rate	Not available
Flammability	Not available
Upper/lower flammability or explosive limits	Not available
Vapour pressure (hPa @ 20°C)	Not available
Vapour density	Not available
Relative density	Not available
Solubility(ies) (water)	Miscible with water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Specific heat value	Not available
Particle size	Not available
Volatile organic compounds content	Not available
% volatile	Not available
Saturated vapour concentration	Not available
Release of invisible flammable vapours and gases	Not available

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SECTION 10 – STABILITY AND REACTIVITY

Reactivity	Hazardous polymerisation will not occur.
Chemical stability	Normally stable. Reacts exothermically with alkalis. Mildly corrosive to metals and concrete.
Conditions to avoid	Avoid contact with metals or metal containers. Reacts exothermically with alkalis.
Incompatible materials	Avoid heating in air. Avoid strong bases copper, zinc and their alloys. Attacks many metals liberating hydrogen gas which is highly flammable and may form an explosive mixture with air. Keep away from foodstuffs.
Hazardous decomposition products	Oxides of sulphur. Oxides of iron.

SECTION 11– TOXICOLOGICAL INFORMATION

Information on routes of exposure	<p>Eyes – Moderate to severe irritation. Corrosive to the eye; corneal burns and can cause permanent injury to the eye.</p> <p>Ingestion - Non -poisonous but a dose above 10mg can give risk to systemic problems such as nausea, vomiting, abdominal pain, diarrhoea & chemical burns to the gastrointestinal tract. Swallowing large amounts of soluble iron compounds may be delayed several hours and can include epigastric pain, vomiting blood and circulatory failure.</p> <p>Inhalation – Breathing in mists or aerosols may produce respiratory irritation.</p> <p>Skin - Irritates on prolonged contact and dermatitis could result from contact with sensitive skin. Can cause skin burns.</p>
Symptoms related to exposure	Not available.
Numerical measures of toxicity	Not available.
Immediate, delayed and chronic health effects from exposure	Not available.
Exposure levels	Not available.
Interactive effects	Not available.
Data limitations	Not available.

SECTION 12– ECOLOGICAL INFORMATION

Ecotoxicity	Avoid contaminating water ways. The product is highly acidic. If large spills occurred in water Ph would drop and this could have a negative effect on aquatic organisms.
Persistence and degradability	Not available.
Bioaccumulative potential	Not available.
Mobility in soil	Not available.
Other adverse effects	Not available.

SECTION 13 – DISPOSAL CONSIDERATIONS

Safe handling and disposal methods	Dispose of in accordance with all local, state and federal regulations.
Disposal of any contaminated packaging	All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.
Environmental regulations	Dispose of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

SECTION 14 – TRANSPORT INFORMATION

UN number	3264
Proper shipping name	Corrosive liquid, Acidic, Inorganic, NOS (Ferric Sulphate)
Transport hazard class(es)	8 – Corrosive Substances
Subsidiary risk	None allocated
Packaging group	II

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Environmental hazards	Not available
Special precautions during transport	Not available
Hazchem code	2X

SECTION 15 – REGULATORY INFORMATION

AICS name	Sulfuric acid, iron (3+) salt (3:2)
Poisons Schedule number	Not available

SECTION 16 – OTHER INFORMATION

SDS creations date	01 December 2000
Most recent revision date	1 February 2018
Revision number	018 THIS ISSUE NUMBER REPLACES ALL ISSUES
Reason for revision	Annual Update
Contact person	Ixom Telephone 1800 033 111 / Int. +61 (0) 3 9663 2130 (24 hours)

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

END OF SDS