

# Safety Data Sheet



## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:** FERROUS SULPHATE

**Other name(s):** Ferrous Sulfate; Iron (II) Sulfate

**Recommended Use of the Chemical and Restrictions on Use** Pharmaceutical / Nutraceutical applications.

**Supplier:** Ixom Operations Pty Ltd (Bronson & Jacobs division) - incorporated in Australia  
**Street Address:** 166 Totara Street  
Mt Maunganui South  
New Zealand

**Telephone Number:** +64 9 309 2528  
**Facsimile:** +64 9 0508 366 364  
**Emergency Telephone:** **0 800 734 607 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

## 2. HAZARDS IDENTIFICATION

Not classified as a Dangerous Good under NZS 5433:2012 Transport of Dangerous Goods on Land.

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and the Hazardous Substances (Classification) Notice 2017.

**SIGNAL WORD:** WARNING

**Subclasses:**

Subclass 6.1 Category D - Substances which are acutely toxic.

Subclass 6.3 Category A - Substances that are irritating to the skin.

Subclass 6.4 Category A - Substances that are irritating to the eye.

Subclass 9.1 Category D - Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action.

Subclass 9.3 Category C - Substances that are harmful to terrestrial vertebrates.

Approval Number: HSR003420



**Hazard Statement(s):**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H401 Toxic to aquatic life.

H433 Harmful to terrestrial vertebrates.

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## Precautionary Statement(s):

### Prevention:

P102 Keep out of reach of children.

P264 Wash hands thoroughly after handling.

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

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

### Response:

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P321 Specific treatment (see First Aid Measures on the Safety Data Sheet).

P362 Take off contaminated clothing before re-use.

### Storage:

No storage statements.

### Disposal:

P501 In case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Notice 2017. This may also include any method of disposal that must be avoided.

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

| Components                         | CAS Number | Proportion | Hazard Codes     |
|------------------------------------|------------|------------|------------------|
| Sulfuric acid, iron(2+) salt (1:1) | 7720-78-7  | 100%       | H302, H315, H319 |

## 4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

### Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

### Skin Contact:

If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water and soap. If swelling, redness, blistering or irritation occurs seek medical assistance.

### Eye Contact:

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.

### Ingestion:

Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Never give anything by the mouth to an unconscious patient. Seek medical assistance.

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## Indication of immediate medical attention and special treatment needed:

Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

### Suitable Extinguishing Media:

Extinguishing media appropriate to surrounding fire conditions.

### Specific hazards arising from the chemical:

Non-combustible material. Decomposes on heating emitting toxic fumes including those of oxides of sulfur.

### Special protective equipment and precautions for fire-fighters:

Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition. Keep containers cool with water spray.

## 6. ACCIDENTAL RELEASE MEASURES

### Emergency procedures/Environmental precautions:

Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

### Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:

Wear protective equipment to prevent skin and eye contact and breathing in dust. Work up wind or increase ventilation. Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Avoid skin and eye contact and breathing in dust. Avoid handling which leads to dust formation.

**Conditions for safe storage, including any incompatibilities:** Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for spills.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Workplace Exposure Standards:** No value assigned for this specific material by the New Zealand Workplace Health & Safety Authority. However, Workplace Exposure Standard(s) for constituent(s):

Particulates not otherwise classified: 8hr WES-TWA 10 mg/m<sup>3</sup> (inhalable dust) or 3 mg/m<sup>3</sup> (respirable dust)  
Iron salts, soluble, as Fe: WES-TWA 1 mg/m<sup>3</sup>

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As published by the New Zealand Workplace Health & Safety Authority.

WES - TWA (Workplace Exposure Standard - Time Weighted Average) - The eight-hour, time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

### Appropriate engineering controls:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Avoid generating and breathing in dusts. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

### Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, DUST MASK.



Wear overalls, chemical goggles and impervious gloves. Avoid generating and inhaling dusts. If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|   |                   |
|---|-------------------|
| <b>Physical state:</b>                  | Powder            |
| <b>Colour:</b>                          | Light Grey        |
| <b>Odour:</b>                           | Slightly Acidic   |
| <b>Odour Threshold:</b>                 | Not available     |
| <b>Solubility:</b>                      | Soluble in water. |
| <b>Specific Gravity:</b>                | Not available     |
| <b>Relative Vapour Density (air=1):</b> | Not available     |
| <b>Vapour Pressure (20 °C):</b>         | Not available     |
| <b>Flash Point (°C):</b>                | Not applicable    |

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|                                       |                           |
|---------------------------------------|---------------------------|
| <b>Flammability Limits (%):</b>       | Not applicable            |
| <b>Autoignition Temperature (°C):</b> | Not applicable            |
| <b>Solubility in water (g/L):</b>     | 230 @ 20°C                |
| <b>Melting Point/Range (°C):</b>      | Not available             |
| <b>Boiling Point/Range (°C):</b>      | Not available             |
| <b>Decomposition Point (°C):</b>      | Not available             |
| <b>pH:</b>                            | 2.5 - 4.0 at 50 g/L, 20°C |
| <b>Viscosity:</b>                     | Not available             |
| <b>Partition Coefficient:</b>         | Not available             |

## 10. STABILITY AND REACTIVITY

|  |   |
|--|---|
| <b>Reactivity:</b>                         | No information available.   |
| <b>Chemical stability:</b>                 | Stable under normal conditions of use.  |
| <b>Possibility of hazardous reactions:</b> | Hazardous polymerisation will not occur.  |
| <b>Conditions to avoid:</b>                | Avoid exposure to heat, sources of ignition, and open flame. Avoid dust generation. |
| <b>Incompatible materials:</b>             | Incompatible with oxidising agents and alkalis.                                     |
| <b>Hazardous decomposition products:</b>   | Oxides of sulfur.   |

## 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

|  |  |
|--|--|
| <b>Ingestion:</b>  | Swallowing can result in nausea, vomiting, diarrhoea, and abdominal pain. Symptoms of swallowing large amounts of soluble iron compounds may be delayed several hours and can include epigastric pain, vomiting blood and circulatory failure. |
| <b>Eye contact:</b>                                      | An eye irritant.   |
| <b>Skin contact:</b>                                     | Contact with skin will result in irritation.   |
| <b>Inhalation:</b>                                       | Breathing in dust may result in respiratory irritation.  |
| <b>Acute toxicity:</b><br>Oral LD50 (rat): 319 mg/kg (1) |  |
| <b>Skin corrosion/irritation:</b>                        | Irritant.  |
| <b>Serious eye damage/irritation:</b>                    | Irritant.  |
| <b>Respiratory or skin sensitisation:</b>                | Not classified.  |
| <b>Chronic effects:</b>                                  | No information available for the product.  |

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|   |                 |
|---|-----------------|
| <b>Mutagenicity:</b>  | Not classified. |
| <b>Carcinogenicity:</b>   | Not classified. |
| <b>Reproductive toxicity:</b>                                     | Not classified. |
| <b>Specific Target Organ Toxicity (STOT) - single exposure:</b>   | Not classified. |
| <b>Specific Target Organ Toxicity (STOT) - repeated exposure:</b> | Not classified. |
| <b>Aspiration hazard:</b>   | Not classified. |

## 12. ECOLOGICAL INFORMATION

|                                   |                                |
|-----------------------------------|--------------------------------|
| <b>Ecotoxicity</b>                | Avoid contaminating waterways. |
| <b>Persistence/degradability:</b> | No information available.      |
| <b>Bioaccumulative potential:</b> | No information available.      |
| <b>Mobility in soil:</b>          | No information available.      |
| 96hr LC50 (fish):                 | 1.8 mg/L (2)                   |

## 13. DISPOSAL CONSIDERATIONS

### **Disposal methods:**

Refer to local government authority for disposal recommendations. Dispose of contents/container in accordance with local/regional/national/international regulations.

## 14. TRANSPORT INFORMATION

### **Road and Rail Transport**

Not classified as a Dangerous Good under NZS 5433:2012 Transport of Dangerous Goods on Land.

### **Marine Transport**

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

### **Air Transport**

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

## 15. REGULATORY INFORMATION

### **Classification:**

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and the Hazardous Substances (Classification) Notice 2017.

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## Subclasses:

Subclass 6.1 Category D - Substances which are acutely toxic.

Subclass 6.3 Category A - Substances that are irritating to the skin.

Subclass 6.4 Category A - Substances that are irritating to the eye.

Subclass 9.1 Category D - Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action.

Subclass 9.3 Category C - Substances that are harmful to terrestrial vertebrates.

Approval Number: HSR003420

## Hazard Statement(s):

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H401 Toxic to aquatic life.

H433 Harmful to terrestrial vertebrates.

## 16. OTHER INFORMATION

(1) 'Registry of Toxic Effects of Chemical Substances'. Ed. D. Sweet, US Dept. of Health & Human Services: Cincinnati, 2018.

(2) Supplier Safety Data Sheet; 05/ 2018.

(3) In 'Martindale - The Extra Pharmacopoeia. 29th Edition. Ed. Reynolds J. The Pharmaceutical Press, London, 1989.'

This safety data sheet has been prepared by Ixom Operations Pty Ltd Toxicology & SDS Services.

## Reason(s) for Issue:

Revised Primary SDS

Minor Text Changes

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Bronson & Jacobs representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

Bronson and Jacobs incorporating the businesses of Woods and Woods and Keith Harris.