Infosafe No™ 1CH3A Issue Date : September 2012 RE-ISSUED by CHEMSUPP

Product Name **IRON (II) SULFIDE**

Not classified as hazardous

1. Identification

GHS Product Identifier IRON (II) SULFIDE

Company Name CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)

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Recommended use of the chemical and restrictions on use As laboratory source of hydrogen sulfide; ceramics; other sulfides; pigment, e.g., in paint, glass containers, hair dyes and ceramics; in anodes; in lubricant coatings; in treatment of exhaust gases and heavy metal pollution.

Other Names

Name	Product Code
Ferrous sulfide	
IRON (II) SULFIDE TG	IT016

Additional Information When used for laboratory chemical analysis, it has no poison schedule. If this compound is used in human or animal application then it may acquire a poison schedule of S6, S5, S4 or S2.

Other Information EMERGENCY CONTACT NUMBER: +61 08 8440 2000
Business hours: 8:30am to 5:00pm, Monday to Friday.

Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture This substance is not according to Directive 67/548/EEC.

3. Composition/information on ingredients

Chemical Characterization Solid

Ingredients

Name	CAS	Proportion	Hazard Symbol	Risk Phrase
Iron (II) sulfide	1317-37-9	75-80 %		

4. First-aid measures

Inhalation Remove from exposure, rest and keep warm. Ensure airways are clear and have qualified person give oxygen through a face mask if breathing is difficult. If breathing becomes difficult, seek medical attention.

Ingestion Rinse mouth thoroughly with water immediately. Give plenty of water to drink. Never give anything by mouth to an unconscious person. If swallowed, do NOT induce vomiting. Seek medical attention immediately.

Skin Wash affected area thoroughly with copious amounts of running water. Remove contaminated clothing and wash before reuse. Seek medical attention in severe cases.

Eye contact If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. Seek medical attention.

First Aid Facilities Maintain eyewash fountain and safety shower in work area.

Advice to Doctor Treat symptomatically and supportively.

Not classified as hazardous

Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Suitable extinguishing media	Use appropriate fire extinguisher for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam.
Hazards from Combustion Products	Irritating and toxic fumes and gases, including sulfur oxides (SO2, SO3, SOx), including sulfur oxide and sulfur dioxide, hydrogen sulfide gas and iron oxides.
Specific hazards arising from the chemical	Material does not burn. Runoff may pollute waterways. Fire or heat may produce irritating, poisonous and/or corrosive fumes. Containers may explode when heated.
Precautions in connection with Fire	Wear SCBA and structural firefighter's uniform.
Other Information	Powdered iron sulfide is pyrophoric.

6. Accidental release measures

Spills & Disposal	Stop leak if safe to do so. Prevent entry into waterways, drains, confined areas. Prevent dust cloud. Use clean non-sparking tools to collect material and place it into loosely-covered plastic containers for later disposal. SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)

7. Handling and storage

Precautions for Safe Handling	Avoid ingestion and inhalation of dust. Avoid contact with eyes, skin, and clothing. Minimize generating dusty conditions. Keep container tightly closed. Provide ventilation. Use with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Keep away from heat and all sources of ignition.
Conditions for safe storage, including any incompatabilities	Store in tightly closed containers, in a cool, dry, well-ventilated area away from incompatible substances.
Storage Temperatures	Store at room temperature (15 to 25 °C recommended).

8. Exposure controls/personal protection

Other Exposure Information	A time weighted average (TWA) has been established for Iron salts, soluble (as Fe) (Worksafe Aust) of 1 mg/m³. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.
Appropriate engineering controls	In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.
Respiratory Protection	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
Eye Protection	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.
Hand Protection	Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.
Body Protection	Clean clothing or protective clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
Hygiene Measures	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or

re-using.

9. Physical and chemical properties

Form	Solid
Appearance	Dark-brown or greyish-black metallic sticks or rods.
Odour	Almost odourless to sulfurous odour.
Melting Point	1193 - 1195 °C.
Boiling Point	Decomposes.
Solubility in Water	Almost insoluble (0.00062 g/100 ml H2O at 18 °C).
Solubility in Organic Solvents	Insoluble in nitric acid; soluble in acids with evolution of hydrogen sulfide gas.
Specific Gravity	4.84
Vapour Pressure	Negligible.
Flammability	Non combustible material.
Explosion Properties	The use of steel equipment in conjunction with hydrogen sulfide or volatile sulfide compounds will cause it to spontaneously explode in air. Exothermic reaction with lithium initates at 260 °C and rapidly rises to 960 °C.
Molecular Weight	87.91

10. Stability and reactivity

Chemical Stability	Stable at room temperature in closed containers under normal storage and handling conditions. Sensitive to moisture, sensitive to air. Oxidized by moist air to sulfur (S) and iron oxide (Fe3O4).
Conditions to Avoid	Exposure to air and moisture, dust generation, acids, strong oxidants, and incompatible materials.
Incompatible Materials	Moisture, acids (forms hydrogen sulfide gas), oxidizing agents, halogens, hydrogen peroxide, strong bases, powdered metals and metal oxides.
Hazardous Decomposition Products	Irritating and toxic fumes and gases, sulfur oxides (SOx), including sulfur oxide and sulfur dioxide, hydrogen sulfide gas, and iron oxides.
Possibility of hazardous reactions	Moist material oxidises exothermically in air reaching ignition temperature. Exothermic reaction with lithium initates at 260 °C and rapidly rises to 960 ° C. The use of steel equipment in conjunction with hydrogen sulfide or volatile sulfide compounds will cause it to spontaneously explode in air. Reacts vigorously with hydrogen peroxide. Exposure to acids may result in emission of toxic hydrogen sulfide gas.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Inhalation	May be harmful if inhaled. May be irritating to mucous membranes of the nose, throat and respiratory tract. The toxicological properties of this substance have not been fully investigated.
Ingestion	May be harmful if swallowed. Ingestion of this product may irritate the digestive tract, causing nausea and vomiting.
Skin	May cause mild irritation on contact with skin. The toxicological properties of this material have not been fully investigated.
Eye	May cause mild mechanical eye irritation and redness. The toxicological properties of this material have not been fully investigated.
Carcinogenicity	Not listed in the IARC Monographs.

12. Ecological information

Ecological Information	No ecology data available for this product.
Environmental Protection	Do not allow to enter waters, waste water, or soil!

13. Disposal considerations

Disposal Considerations Dispose of according to relevant local, state and federal government regulations.

14. Transport information

Transport Information Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

15. Regulatory information

Poisons Schedule Not Scheduled

16. Other Information

Literature References

Australian Government Department of Health and Ageing, 'Standard for the Uniform Scheduling of Medicines and Poisons No. 2', Commonwealth of Australia, August 2011.
Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997.
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007.
South Australia Government, 'Approved Code of Practice for the Labelling of Workplace Substances', 1995.
Standards Australia 'AS 1940-2004 The Storage and Handling of Flammable and Combustible Liquids.
Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 2010.
Worksafe Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004)]'.
Worksafe Australia, 'Hazardous Substances Information System, 2005'.
Worksafe Australia, 'National Code of Practice for the Labelling of Workplace Substances [NOHSC:2012(1994)]'.
Worksafe Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]'.

Contact Person/Point Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT:
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Empirical Formula & Structural Formula FeS

User Codes

User Field Title	User Code
CAS No.	1317-37-9

...End Of MSDS...