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RE-ISSUED by CHEMSUPP Infosafe No™ 1CH3D Issue Date: May 2015

IRON (III) NITRATE Nonahydrate Product Name:

Classified as hazardous

1. Identification

GHS Product

IRON (III) NITRATE Nonahydrate

Identifier

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

38 - 50 Bedford Street GILLMAN **Address**

SA 5013 Australia

Telephone/Fax Number

Tel: (08) 8440-2000 Fax: (08) 8440-2001

Recommended use of the chemical and Mordant in dyeing, weighting silks, tanning, analytical reagent, laboratory reagent, oxidising agent and

corrosion inhibitor.

restrictions on use **Other Names**

Name Product Code

IRON(III) NITRATE Nonahydrate AR FA006 IRON(III) NITRATE Nonahydrate LR FL006

Ferric nitrate Nonahydrate

Additional Information Other 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.

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

Eye Damage/Irritation: Category 1 Skin Corrosion/Irritation: Category 1A

substance/mixture

Signal Word (s)

Hazard Statement

H314 Causes severe skin burns and eye damage.

Pictogram (s) Corrosion



Precautionary

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

statement -

P264 Wash thoroughly after handling.

Prevention **Precautionary** statement -Response

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

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 CENTER or doctor/physician.

P363 Wash contaminated clothing before reuse.

Precautionary statement - Storage

P405 Store locked up.



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Hours or days after apparent recovery, metabolic acidosis, convulsions and coma may occur. If the Other Information

patient survives, symptoms of acute liver necrosis may develop and could lead to death due to hepatic

coma.

3. Composition/information on ingredients

Chemical

Solid

Characterization Ingredients

Name CAS **Proportion Hazard Symbol Risk Phrase**

7782-61-8 Iron (III) Nitrate nonahydrate 100 %

4. First-aid measures

Inhalation If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not

breathing. If breathing is difficult, give oxygen. Immediately obtain medical aid if cough or other

symptoms appear.

Ingestion Rinse mouth thoroughly with water immediately. Give plenty of water to drink. Do not induce vomiting.

Seek immediate medical assistance.

Skin Wash affected areas with copious quantities of water. Remove contaminated clothing and wash before

re-use. Seek medical advice.

Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Eve contact

Seek medical attention.

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

Consult Poisons Information Centre. **Advice to Doctor**

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

766) or a doctor at once.

5. Fire-fighting measures

Suitable Use water spray, dry chemical, carbon dioxide, or appropriate foam.

extinguishing media

Hazards from Combustion

May liberate toxic fumes in fire including nitrous gases, nitrogen oxides, iron oxides.

Products

Hazchem Code 2X

Decomposition ~125 °C (release of crystalline water @ ~100 °C).

Temp.

Wear SCBA and chemical splash suit. Structural firefighter's uniform will provide limited protection. Precautions in

connection with Fire

Accidental release measures

Evacuate the area of all non-essential personnel. Avoid inhalation, contact with skin, eyes and clothing. Personal

Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in **Precautions**

enclosed rooms.

Personal Protection Wear protective clothing specified for normal operations (see Section 8)

Clean-up Methods -**Small Spillages**

Environmental

Sweep up and remove to a suitable, clearly labelled container for disposal in accordance with local regulations. Do not use rags, sawdust or other combustible absorbents to wipe up spilled material. Use appropriate containment to avoid environmental contamination. Prevent from entering into drains,

Precautions ditches, rivers or the sea.

7. Handling and storage

Precautions for Safe Avoid substance contact and generation and inhalation of dust.

Handling

Conditions for safe storage, including

Store in a cool, dry place. Store in well ventilated area. Store away from combustible materials. Keep containers closed at all times.

any incompatabilities

Corrosiveness Solutions in water are slightly corrosive to metals.

Storage Regulations Refer Australian Standard AS 3780-1994 'The storage and handling of corrosive substances'.

8. Exposure controls/personal protection



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IRON (III) NITRATE Nonahydrate Product Name:

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Occupational exposure limit

Appropriate

values

STEL **TWA**

> mg/m3 mg/m3 **Footnote** ppm ppm 1.0

Iron (III) Nitrate nonahydrate

A time weighted average (TWA) has been established for Iron salts, soluble (as Fe) (Safe Work Other Exposure Australia) of 1 mg/m³. The exposure value at the TWA is the average airborne concentration of a Information particular substance when calculated over a normal 8 hour working day for a 5 day working week.

In industrial situations maintain the concentrations values below the TWA. This may be achieved by engineering controls process modification, use of local exhaust ventilation, capturing substances at the source, or other

methods.

Name

Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours Respiratory **Protection**

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.

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. **Eye Protection**

Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and **Hand Protection**

maintenance. Recommendation: Nitrile rubber gloves

Personal Protective Equipment

Final choice of personal protective equipment will depend on individual circumstances and/or according

to risk assessments undertaken.

Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, **Footwear**

Occupational protective footwear - Guide to selection, care and use. Recommendation: Rubber boots. Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection

Body Protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

9. Physical and chemical properties

Form Solid

Appearance Pale-violet crystals. Odour Weak of nitric acid.

Decomposition

~125 °C (release of crystalline water @ ~100 °C).

Temperature

Melting Point 47.2 °C (decomposes)

Solubility in Water Soluble.

Solubility in Organic Freely soluble in alcohol and acetone. Slightly soluble in cold concentrated HNO3. Solvents

Specific Gravity 1.684

pН ~1.3 (100 g/l, H2O, 20 °C)

Flammability Not combustible but assists combustion of other substances.

Molecular Weight

Oxidising Properties Has been shown not to be oxidising in a test following Directive 67/548/EEC (Method A17, oxidising

properties).

10. Stability and reactivity

Hygroscopic, sensitive to moisture. **Chemical Stability**

Conditions to Avoid Incompatibles.

Incompatible Risk of explosion with: dimethyl sulfoxide. Increased reacivity with: organic combustible substances,

reducing agents, powdered metals. **Materials**

May liberate toxic fumes in fire including nitrous gases, nitrogen oxides, iron oxides. **Hazardous**

Decomposition Products

Hazardous Will not occur.

Polymerization



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11. Toxicological Information

Acute Toxicity - Oral LD50 (rat): 3.25 g/kg (Smyth).

Ingestion May cause irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal

tract, gastrointestinal discomfort, bloody diarrhoea and vomiting. Effects of ingestion of large amounts may be delayed for several hours and can include epigastric pain, hematemesis, possible circulatory

failure and collapse.

Inhalation Inhalation of dust causes irritation to mucous membranes and respiratory tract. Symptoms include

coughing and dyspnoea (shortness of breath).

Skin Causes skin burns.

Risk of serious eve damage. Eye

No evidence of carcinogenic properties. Carcinogenicity

The following applies to nitrites/nitrates in general: methaemoglobinaemia after the uptake of large **Health Hazard**

The following applies to soluble iron compounds: nausea and vomiting after swallowing. The absorption

of large quantities is followed by cardiovascular disorders. Toxic effect on liver and kidneys.

Chronic Effects The continued administration of medicinal amounts may cause constipation.

Do not allow to enter waters, waste water, or soil!

Mutagenicity No evidence of mutagenic properties.

12. Ecological information

Persistence and

degradability

Other Adverse

Effects

Methods for the determination of biodegradability are not applicable to inorganic substances.

When iron ions flocculate in an alkaline medium, mechanical damage occurs in aquatic organisms. The following applies to nitrates in general: may contribute to the eutrophication of water supplies.

Hazard for drinking water.

Environmental Protection

Acute Toxicity - Fish LC50 (L. idus): 10 - 20 mg/l.

The following applies to dissolved iron compounds in general: fish: toxic as from 0.9 mg/l at pH 6.5 - 7.5;

lethal as from 1 mg/l at pH 5.5 - 6.7; 50 mg/l iron upper limit for fish life.

The following applies to nitrates in general: may contribute to the eutrophication of water supplies.

Hazard for drinking water.

LC50 >500 mg/l

13. Disposal considerations

Disposal

Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

Considerations

14. Transport information

Transport Dangerous goods of Class 8 (Corrosive) are incompatible in a placard load with any of the following: Information

Class 1, Class 4.3, Class 5, Class 6, if the Class 6 dangerous goods are cyanides and the Class 8

dangerous goods are acids, Class 7; and are incompatible with food and food packaging in any quantity.

U.N. Number

UN proper shipping CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

name

Transport hazard

class(es)

8

37

2X **Hazchem Code Packaging Method** 3.8.8 Packing Group Ш **IERG Number**

15. Regulatory information

Listed in the Australian Inventory of Chemical Substances (AICS). Regulatory

Information

Poisons Schedule Not Scheduled



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16. Other Information

Literature References

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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.

Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous

Chemicals', 2011.

Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide',

Standards Australia/Standards New Zealand, 2010.

Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'.

Safe Work Australia, 'Hazardous Substances Information System, 2005'.

Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances

(2011)'

Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational

Environment [NOHSC:1003(1995) 3rd Edition]'.

Contact Person/Point

Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT:

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Empirical Formula & Fe(NO3)3.9H2O Structural Formula

...End Of MSDS...

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