

1. Product and Company Identification

Product Code: FGAU125-129
Product Name: IRON CHELATE (WL)
Company Name: Stoller Australia Pty Ltd
1 Creswell Road
Largs Bay
South Australia 5016
Web site address: www.stoller.com.au
Email address: stoller@stoller.com.au
Emergency Contact: STOLLER PRODUCTION CHEMIST
Contact number: 08 8169-0988
Information: 1800 337-845
Intended Use: For agricultural use only

2. Hazards Identification

Acute Toxicity: Inhalation, Category 4
Serious Eye Damage/Eye Irritation, Category 2A
Aquatic Toxicity (Acute), Category 2
Acute Toxicity: Oral, Category 3
Corrosive To Metals, Category 1
Aquatic Toxicity (Chronic), Category 2
Skin Corrosion/Irritation, Category 2



GHS Signal Word: **Danger**

GHS Hazard Phrases: H290 - May be corrosive to metals.
H301 - Toxic if swallowed.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H332 - Harmful if inhaled.
H401 - Toxic to aquatic life.
H411 - Toxic to aquatic life with long lasting effects.

GHS Precaution Phrases: P234 - Keep only in original container.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

GHS Response Phrases: P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302+352 - IF ON SKIN: Wash with plenty of soap and water.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P321 - Specific treatment see ... on this label.
P330 - Rinse mouth.
P332+313 - If skin irritation occurs, get medical advice/attention.

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GHS Storage and Disposal Phrases:	P337+313 - If eye irritation persists, get medical advice/attention. P362+364 - Take off contaminated clothing and wash it before reuse. P390 - Absorb spillage to prevent material damage. P391 - Collect spillage. P405 - Store locked up. P501 - Dispose of contents/container to ...
Potential Health Effects (Acute and Chronic):	Acute: Depending on the duration of contact, overexposure can irritate the eyes, skin, mucous membranes and any other exposed tissue. Chronic: Not known. Expected toxicity hazard: slight. NOTE: Copper is not metabolized by people affected by Wilson's disease, so it may accumulate in various tissues and result in severe organ damage.
Inhalation:	Prolonged exposure to low concentrations of vapors may cause irritation to throat and upper respiratory tract, headache, nausea, dizziness, and even unconsciousness.
Skin Contact:	Causes severe skin irritation. Prolonged and/or repeated contact may cause irritation and/or dermatitis. May cause skin burns.
Eye Contact:	Eye exposure may cause serious eye irritation, pain, and/or damage to the eye.
Ingestion:	Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated.

3. Composition/Information on Ingredients

CAS #	Components (Chemical Name)	Concentration	
7758-94-3	Ferrous chloride	<10.0 %	
7447-39-4	Cupric chloride	< 6.0 %	
7773-01-5	Manganese chloride	< 3.0 %	
7646-85-7	Zinc chloride	< 1.5 %	
10043-35-3	Boric acid	< 0.2 %	
7631-95-0	Sodium molybdate(VI)	< 0.1 %	

4. First Aid Measures

Emergency and First Aid Procedures:	Victims of severe exposure to chemicals must be taken to health providing centers for medical attention. Always bring with victim a copy of label and SDS of product to health professional.
In Case of Inhalation:	Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
In Case of Skin Contact:	Wipe off product and immediately wash affected area with abundant soap and water. Remove contaminated clothing taking care not to impregnate eyes. Seek medical attention if irritation occurs. Wash clothing before reuse.
In Case of Eye Contact:	Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
In Case of Ingestion:	Immediately contact a physician or poison control center for treatment advice. Victim should drink milk, egg whites or large quantities of water and be induced to vomiting. Never give anything by mouth to someone who is unconscious, having convulsions or unable to swallow.
Signs and Symptoms Of Exposure:	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Chronic manganese poisoning primarily involves the central nervous system. Early symptoms include languor, sleepiness and weakness in the legs. High incidence of pneumonia has been found in workers exposed to the dust or

fume of some manganese compounds. The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Note to Physician: Treat symptomatically and supportively.

5. Fire Fighting Measures

Flash Pt: N.A.
Explosive Limits: LEL: N.A. UEL: N.A.
Autoignition Pt: N.A.
Suitable Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam. Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.
Fire Fighting Instructions: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
Flammable Properties and Hazards: Toxic fumes may be generated under fire conditions.
Hazardous Combustion Products: none known.

6. Accidental Release Measures

Protective Precautions, Protective Equipment and Emergency Procedures: In case of a large spill, protect people by clearing and isolating the affected area. Such releases should be responded to by trained personnel using pre-planned procedures. In the event of an incidental release, minimum Personal Protective Equipment must be worn: latex or rubber gloves and rubber boots, goggles or full face-shield and coveralls or long sleeved shirt and pants.
Environmental Precautions: Do not allow to enter drains or waterways.
Steps To Be Taken In Case Material Is Released Or Spilled: It is necessary to contain the spill into the smallest area possible by diking, scooping, etc., and recover liquid into an appropriate container, labeling it accordingly. If product is clean, use it as intended, following original label directions; should it get contaminated, salvage for proper disposal as waste.
 Absorb residual product onto dry carrier such as dirt, sand or any other absorbent material, then put in covered, labeled containers and dispose of as dry waste in accordance with Federal, State and Local waste disposal regulations.

7. Handling and Storage

Precautions To Be Taken in Handling: Use with adequate ventilation. Avoid breathing dust, mist, or vapor. Avoid contact with eyes, skin, or clothing. Avoid ingestion and inhalation. Empty containers may contain residual liquid or vapors and therefore should be handled the same as full containers.
Precautions To Be Taken in Storing: Inspect all incoming containers before storage to ensure all are properly labeled and not damaged. Keep containers tightly closed when not in use. Store in a cool, dry place, away from direct sunlight, sources of intense heat or where freezing is possible. Store away from food, feed, clothing materials and living quarters. Whenever possible, place chemicals on secondary containers or diked area. Store a maximum of three pails high; do not stack pallets. Store Keylate Micronutrients in fiberglass, polyethylene or polyolefin.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
7758-94-3	Ferrous chloride	No data.	TLV: 1 mg/m ³ as Fe	No data.
7447-39-4	Cupric chloride	No data.	No data.	No data.
7773-01-5	Manganese chloride	CEIL: 5 mg/m ³	TLV: 0.2 mg/m ³ as Mn	No data.

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7646-85-7	Zinc chloride	PEL: 1 mg/m3	TLV: 1 mg/m3 STEL: 2 mg/m3	No data.
10043-35-3	Boric acid	No data.	TLV: 2 mg/m ³ STEL: 6 mg/m ³	No data.
7631-95-0	Sodium molybdate(VI)	No data.	No data.	No data.

CAS #	Chemical Name	Jurisdiction	Recommended Exposure Limits	Notations
7773-01-5	Manganese chloride	Austria	TWA: 1 mg/m3 () STEL: () (Total dust)	
7646-85-7	Zinc chloride	Austria	TWA: 1 mg/m3 () STEL: 2 mg/m3 () (Fume)	

Recommended Exposure No occupational exposure limits have been established for this mixture.

Limits:

Respiratory Equipment (Specify Type): A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Eye Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Protective Gloves: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact: Minimum layer thickness: 0.11 mm Break through time: 480 min.

Other Protective Clothing: This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Wear long sleeve shirt, long pants, and protective shoes with socks.

Engineering Controls (Ventilation etc.): General ventilation is usually adequate. Local exhaust should be used if needed for safe, comfortable working conditions. An eye bath and washing facilities should be readily available.

Work/Hygienic/Maintenance Practices: Handle in accordance with good industrial hygiene and safety practice. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove all dirty or contaminated clothing and wash it before reusing, as well as any other PPE.

Environmental Exposure Controls: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water.

9. Physical and Chemical Properties

Physical States:	[] Gas [X] Liquid [] Solid
Appearance and Odor:	Dark brown to black color.
pH:	< 1
Melting Point:	N.A.
Boiling Point:	> 240.00 F
Flash Pt:	N.A.
Evaporation Rate:	N.E.
Flammability (solid, gas):	Material will not burn.
Explosive Limits:	LEL: N.A. UEL: N.A.
Vapor Pressure (vs. Air or mm Hg):	N.E.
Vapor Density (vs. Air = 1):	N.E.
Specific Gravity (Water = 1):	1.25 - 1.29 at 20.0 C
Density:	~ 10.6 LB/GA at 20.0 C
Solubility in Water:	Soluble
Saturated Vapor Concentration:	N.E.
Octanol/Water Partition Coefficient:	N.E.
Percent Volatile:	N.A.
Autoignition Pt:	N.A.
Decomposition Temperature:	N.E.
Viscosity:	N.E.

10. Stability and Reactivity

Reactivity:	N.A.
Stability:	Unstable [] Stable [X]
Conditions To Avoid - Instability:	Stable under normal conditions, but avoid extreme heat and contact with incompatible materials.
Incompatibility - Materials To Avoid:	Strong oxidizing agents.
Hazardous Decomposition or Byproducts:	Hazardous decomposition products formed under fire conditions.
Possibility of Hazardous Reactions:	Will occur [] Will not occur [X]
Conditions To Avoid - Hazardous Reactions:	none known.

11. Toxicological Information

Toxicological Information:	<p>Mutagenicity: This product has not been investigated for mutagenic effects. Embryotoxicity: This product has not been investigated for embryotoxic effects. Teratogenicity: This product has not been investigated for teratogenic effects. Reproductive Toxicity: This product has not been investigated for toxic reproductive effects.</p> <p>CAS# 7758-94-3: Acute toxicity, LD50, Intraperitoneal, Mouse, 59.00 MG/KG. Result: Behavioral: Changes in psychophysiological tests. ; Naunyn-Schmiedeberg's Archiv fuer Experimentelle Pathologie und Pharmakologie., Vol/p/yr: 244,17, 1962</p> <p>CAS# 7646-85-7: Acute toxicity, LD50, Oral, Rat, 350.0 MG/KG. Result: Gastrointestinal:Nausea or vomiting. Blood:Change in clotting factors. ; Food Research., For publisher information, see JFDSAZ, Champaign, IL, Vol/p/yr: 7,313, 1942</p> <p>CAS# 10043-35-3: Acute toxicity, LD50, Oral, Rat, 2660. MG/KG. Result: Gastrointestinal:Hypermotility, diarrhea. Gastrointestinal:Nausea or vomiting. ; Journal of the American Medical Association, American Medical Association, 535 N. Dearborn St., Chicago, IL 60610, Vol/p/yr: 128,266, 1945</p>
Irritation or Corrosion:	No data available.
Symptoms related to Toxicological Characteristics:	No data available.
Sensitization:	The sensitizing properties of this product have not been thoroughly investigated.
Chronic Toxicological Effects:	The toxicological properties of this material have not been fully investigated.
Carcinogenicity/Other Information:	The carcinogenic properties of this product have not been thoroughly investigated.
Carcinogenicity:	NTP? No IARC Monographs? No OSHA Regulated? No

12. Ecological Information

General Ecological Information:	The available data on this material does not indicate any undue hazard to the environment under anticipated use and storage. All work practices must be aimed at eliminating environmental contamination. Any waste due to spillage or leakage should be contained and disposed of accordingly, see above under Section 6 "Accidental Release Measures." Due to its nutritional nature, may cause eutrophication if discharged in bodies of water. May be toxic to fish due to its copper component.
Results of PBT and vPvB assessment:	No data available.
Persistence and Degradability:	No data available.
Bioaccumulative Potential:	No data available.
Mobility in Soil:	No data available.

13. Disposal Considerations

Waste Disposal Method: This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local waste regulatory authority. Avoid contaminating water by disposal of equipment wash waters or other product wastes.

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

14. Transport Information

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: CORROSIVE LIQUID, N.O.S. (Contains ferrous chloride)

ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.

Regulated for ground and air transportation in containers of 17 gallons (64) which reach the threshold limit for Reportable Quantity (RQ) of 10 pounds for copper chloride.

For waterway shipping, any size container is regulated.

DOT Hazard Class:

8 CORROSIVE

UN/NA Number:

1760

Packing Group:

II



MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name: CORROSIVE LIQUID, N.O.S. (Contains ferrous chloride)

ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.

Regulated for ground and air transportation in containers of 17 gallons (64) which reach the threshold limit for Reportable Quantity (RQ) of 10 pounds for copper chloride.

For waterway shipping, any size container is regulated.

UN Number:

1760

Packing Group:

II

Hazard Class:

8 - CORROSIVE

IMDG MFAG Number:

IMDG EMS Page:

Marine Pollutant:

Yes

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: CORROSIVE LIQUID, N.O.S.
Contains ferrous chloride 8, III, RQ.

ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.

Regulated for ground and air transportation in containers of 17 gallons (64) which reach the threshold limit for Reportable Quantity (RQ) of 10 pounds for copper chloride.

For waterway shipping, any size container is regulated.

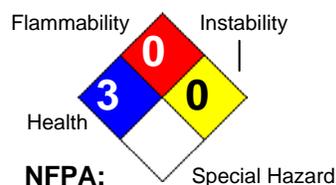
15. Regulatory Information

Regulatory Information Statement:

16. Other Information

Revision Date: 03/24/2016

Hazard Rating System:



Additional Information About No data available.

This Product:

Company Policy or

Disclaimer: