

Safety Data Sheet

according to WHS Regulations

Printing date 10.08.2018

Version number 1

Revision: 10.08.2018

1 Identification

- Product identifier
- Trade name: Iron Mate
- Article number: DK006
- Relevant identified uses of the substance or mixture and uses advised against
For use in the agricultural sector.
- Technical function: Liquid fertilizer
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
Company: Omnia Specialise Australia Pty Ltd
Address: Tramway Road
MORWELL VIC 3840
Telephone Number: +61-3 5133 9118
Facsimile Number: +61-3 5133 9114
- Further information obtainable from: L @ Omnia.net.au
- Emergency telephone number:
, 66) L U V W 5 H V S R Q V H

2 Hazard(s) Identification

- Classification of the substance or mixture

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

-
- Label elements
 - GHS label elements
The product is classified and labelled according to the Globally Harmonised System (GHS).
 - Hazard pictograms

GHS07

- Signal word: Warning
- Hazard-determining components of labelling:
IRON SULPHATE HEPTAHYDRATE
- Hazard statements
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
- Precautionary statements
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P280 Wear protective gloves/eye protection / face protection.

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- P301+P312 *IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.*
- P305+P351+P338 *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
- P321 *Specific treatment (see on this label).*
- P332+P313 *If skin irritation occurs: Get medical advice/attention.*
- P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition and Information on Ingredients

- **Chemical characterisation: Mixtures**
- **Description:** Mixture consisting of the following components:

- **Dangerous components:**

IRON SULPHATE HEPTAHYDRATE	25-50%
⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319	
CITRIC ACID	2.5-10%
⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.
- **Other hazards that do not result in classification** None

4 First Aid Measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
Remove to fresh air. In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly. Remove contaminated clothing. Flush affected areas with plenty of water and soap.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Call for a doctor immediately. Do not induce vomiting. Rinse mouth with water (only if person is conscious).
- **Information for doctor:**
Treat supportive and symptomatically
Contain Iron and Potassium.
- **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions. Water spray jet, foam. Dry fire-extinguishing substance.
- **Special hazards arising from the substance or mixture**
Metal oxide fumes
Sulphur oxides (SOx)

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- **Advice for firefighters** Material not combustable
- **Protective equipment:** Use breathing apparatus with independent air supply (Isolated)

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**
 - Face shields recommended during handling of product.
 - Overalls and gloves recommended when handling liquid.
 - Wash hands after handling product
- **Environmental precautions:** Prevent from spreading (e.g. by damming-in or oil barriers).
- **Methods and material for containment and cleaning up:**
 - Uncontaminated spilled material may be reused
 - For small spills: Dike and absorb spill with sand or inert material (e.g. sawdust). Shovel into drums for disposal. Flush area with water. Note the floor will be slippery. For large spills: Contain liquid far ahead of spill. Contain spillage and contaminated water for subsequent disposal. Do not flush spilled material into drains. Keep spectators away.
 - Dispose contaminated material as waste according to item 13.
 - Ensure adequate ventilation.
- **Reference to other sections**
 - See Section 7 for information on safe handling.
 - See Section 8 for information on personal protection equipment.
 - See Section 13 for disposal information.

7 Handling and Storage

- **Handling:**
 - **Precautions for safe handling**
 - Ensure good ventilation/exhaustion at the workplace.
 - Prevent formation of aerosols.
 - **Information about fire - and explosion protection:**
 - Keep ignition sources away - Do not smoke.
 - Protect from heat.
 - Keep respiratory protective device available.
 - **Conditions for safe storage, including any incompatibilities**
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:**
 - Store and transport in sealed containers below 40°C and above -10°C.
 - **Information about storage in one common storage facility:** Store away from oxidising agents.
 - **Further information about storage conditions:**
 - Keep container tightly sealed in a dry well-ventilated place.
 - Protect from heat and direct sunlight.
 - **Specific end use(s)** Agricultural

8 Exposure controls and personal protection

- **Additional information about design of technical facilities:**
 - Ensure eyewash stations and safety showers are close to the workstation location.
- **Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

IRON SULPHATE HEPTAHYDRATE

WES	Long-term value: 1 mg/m ³ as Fe
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- **Additional information:** The lists valid during the making were used as basis.

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- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

Face shield

- **Body protection:** Protective work clothing

9 Physical and Chemical Properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Liquid

Colour: Yellow

- **Odour:** Odourless

- **Odour threshold:** Not determined.

- **pH-value at 20 °C:** 1.49

- **Change in condition**

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: 100 °C

- **Flash point:** Not applicable.

- **Flammability (solid, gas):** Not applicable.

- **Ignition temperature:**

Decomposition temperature: Not determined.

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· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure at 20 °C:	23 hPa
· Density at 20 °C:	1.31874 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Water:	4.4 %
VOC (EC)	0.00 %
Solids content:	37.4 %
· Other information	No further relevant information available.

10 Stability and Reactivity

- **Reactivity** Stable under normal conditions
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Incompatibles and extreme temperatures
- **Incompatible materials:**
 - Strong oxidizing agents
 - Heat
- **Hazardous decomposition products:**
 - Metal oxide fumes
 - Sulphur oxides (SO_x)

11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**

· **LD/LC50 values relevant for classification:**

IRON SULPHATE HEPTAHYDRATE

Oral	LD50	600 mg/kg (Dog)
		1,520 mg/kg (mouse)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Caustic effect on skin and mucous membranes.
- **Serious eye damage/irritation** Strong caustic effect.
- **Respiratory or skin sensitisation** No sensitising effects known.

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· Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

Corrosive

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological Information

· Toxicity**· Aquatic toxicity:****IRON SULPHATE HEPTAHYDRATE**

EC50 48 h	60-70 mg/l (Daphnia Magna)
EC50 96 hr	70 mg/L (Leptophlebia marginata (Mayfly))
EC50 120 hr	40.2 mg/L (Leptophlebia marginata (Mayfly))
LC50 24 hours	24.9 mg/L (Rana hexadactyla (Indian green frog))
LC50 96 hours	0.56 mg/L (Cyprinus carpio (Common carp))

· **Persistence and degradability** No further relevant information available.

· **Behaviour in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** Soluble in water

· **Additional ecological information:**

· **General notes:**

Generally not hazardous for water

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation**

Contain material in dyke and pump into container for reuse. If contaminated, absorb on absorption material, put material into bins for disposal.

Disposal according to local regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

· **UN-Number**

· **ADG, ADN, IMDG, IATA**

Void

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· UN proper shipping name · ADG, ADN, IMDG, IATA	Void
· Transport hazard class(es) · ADG, ADN, IMDG, IATA · Class	Void
· Packing group · ADG, IMDG, IATA	Void
· Environmental hazards:	Not applicable.
· Special precautions for user · ERG No.	Not applicable. None
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· UN "Model Regulation":	Void

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Australian Inventory of Chemical Substances**

IRON SULPHATE HEPTAHYDRATE

CITRIC ACID

FORMIC ACID 85%

· **Standard for the Uniform Scheduling of Medicines and Poisons**

FORMIC ACID 85%

S5

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3