1. COMPANY DETAILS

Supplier: MP Biomedicals Australasia Pty Limited  
Unit 12, 167 Prospect Hwy.  
Seven Hills, NSW 2147 Aust.

Telephone Number: (02) 9838 7422  
Fax Number: (02) 9838 7390

Emergency telephone number: (02) 9838 7422: hours: 8.30 AM to 5.00 PM

Australian Business Number (ABN): 31 106 467 109

2. IDENTIFICATION

Product name: FERROUS ARSENATE  
Catalog Number: 224688  
Synonyms: Not Available

UN/Id No: 1606  
Proper shipping name: Ferric arsenate  
IATA Hazard Label(s): Toxic  
Hazard Class: 6.1  
- Toxic substances - oral  
Subsidiary risk: No Subsidiary Risk allocated  
Packing group: II

Emergency Action Code (Hazchem code): 2Z  
Recommended use: Research product for non-human use

Component Australia (AICS): Present

FERROUS ARSENATE  
10102-49-5 (100)

3. PHYSICAL DESCRIPTION/PROPERTIES

Appearance and Odor: Gray solid crystals  
Physical state: Solid  
Formula: FeAsO4  
Molecular weight: 74.9216  
Boiling point/range: 2735 °C at 1013 hPa  
Melting point/range: 1539 °C  
Density: 7.87 g/cm3 at 25 °C  
Vapor pressure: ca .000001 hPa at 25 °C  
Solubility (in water): Insoluble
Flash point: Not determined
Autoignition temperature: > 100 °C
Flammable limits in air - lower: Not determined
Flammable limits in air - upper: Not determined

4. INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>Weight %</th>
<th>EC No.</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>FERROUS ARSENATE</td>
<td>10102-49-5</td>
<td>100</td>
<td>233-274-7</td>
<td>T</td>
</tr>
</tbody>
</table>

5. HAZARDS IDENTIFICATION

Australia Hazardous Statement: Hazardous according to criteria of NOHSC

Indication of Danger:
T - Toxic.

R23/25 - Toxic by inhalation and if swallowed.

Safety Phrases:
S28 - After contact with skin, wash immediately with plenty of water.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
S20/21 - When using, do not eat, drink or smoke.

Category of Danger: Toxic, Carc. cat. 1


6. HEALTH HAZARD INFORMATION

HEALTH EFFECTS

EMERGENCY OVERVIEW: Toxic: danger of very serious irreversible effects if swallowed. May also have serious irreversible effects through skin contact or inhalation.

Principle routes of exposure:
Inhalation: Harmful: possible risk of irreversible effects through inhalation.
Ingestion: Toxic: danger of very serious irreversible effects if swallowed.
Skin contact: Harmful: danger of serious damage to health by prolonged skin contact.
Eye contact: Risk of serious damage to eyes

Statements of hazard

<table>
<thead>
<tr>
<th>Components</th>
<th>Australian Exposure Standards - Carcinogens</th>
<th>Australia - Exposure Standards - Short Carcinogens</th>
</tr>
</thead>
<tbody>
<tr>
<td>FERROUS ARSENATE</td>
<td>confirmed carcinogen</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>
FIRST AID

General advice: In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Inhalation: Move to fresh air. Call a physician immediately.

Skin contact: Rinse immediately with plenty of water for at least 15 minutes

Ingestion: Drink 1 or 2 glasses of water. Induce vomiting, but only if victim is fully conscious.

Eye contact: Flush eye(s) immediately with plenty of water. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Protection of first-aiders: No information available

Notes to physician: None

Medical conditions aggravated by exposure: None known

7. PRECAUTIONS FOR USE

8. SAFE HANDLING INFORMATION
Polymerization: None under normal processing.
Hazardous decomposition products: Arsenic oxides
Materials to avoid: -
Conditions to avoid: Exposure to air or moisture over prolonged periods.

Spills and Disposal:

Personal precautions: Use personal protective equipment.
Environmental precautions: Prevent product from entering drains.
Methods for cleaning up: Sweep up and shovel into suitable containers for disposal.
Waste from residues / unused products: Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous.

Contaminated packaging: Do not re-use empty containers

Fire/Explosion Hazards:

Suitable extinguishing media: Use dry chemical, CO2, water spray or "alcohol" foam
Specific hazards: Burning produces irritant fumes.
Unusual hazards: None known
Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
Specific methods: Water mist may be used to cool closed containers.

9. TOXICOLOGICAL INFORMATION

Product Information
Acute toxicity

<table>
<thead>
<tr>
<th>Components</th>
<th>RTECS Number:</th>
<th>Selected LD50s and LC50s</th>
</tr>
</thead>
<tbody>
<tr>
<td>FERROUS ARSENATE</td>
<td>NO4585000</td>
<td>Oral LD50 Rat : 30 gm/kg</td>
</tr>
</tbody>
</table>

Chronic toxicity: Chronic exposure may cause nausea and vomiting, higher exposure causes unconsciousness.
Local effects: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Specific effects: May include moderate to severe erythema (redness) and moderate edema (raised skin), nausea, vomiting, headache.
Carcinogenic effects: A known carcinogen.
Mutagenic effects: No data is available on the product itself.
Reproductive toxicity: No data is available on the product itself.

<table>
<thead>
<tr>
<th>Components</th>
<th>NIOSH - Health Effects</th>
<th>NIOSH - Target Organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>FERROUS ARSENATE</td>
<td>Lung and lymphatic cancer, dermatitis</td>
<td>liver, kidneys, skin, lungs,lymphatic system, lung and lymphatic cancer</td>
</tr>
</tbody>
</table>

10. ECOLOGICAL INFORMATION

Mobility: No data available
Bioaccumulation: No data available
Ecotoxicity effects: No data available
Aquatic toxicity: May cause long-term adverse effects in the aquatic environment.

Catalog Number: 224688 Product name: FERROUS ARSENATE
### Components

<table>
<thead>
<tr>
<th>U.S. DOT - Appendix B - Marine Pollutant</th>
<th>U.S. DOT - Appendix B - Severe Marine Pollutants</th>
<th>United Kingdom - The Red List:</th>
</tr>
</thead>
<tbody>
<tr>
<td>FERROUS ARSENATE</td>
<td>DOT regulated marine pollutant</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Germany VCI (WGK)</th>
<th>World Health Organization (WHO) - Drinking Water</th>
<th>Ecotoxicity - Fish Species Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>FERROUS ARSENATE</td>
<td>0.01 mg/L (Provisional)</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ecotoxicity - Freshwater Algae Data</th>
<th>Ecotoxicity - Microtox Data</th>
<th>Ecotoxicity - Water Flea Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>FERROUS ARSENATE</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EPA - ATSDR Priority List</th>
<th>EPA - HPV Challenge Program Chemical List</th>
<th>California - Priority Toxic Pollutants</th>
</tr>
</thead>
<tbody>
<tr>
<td>FERROUS ARSENATE</td>
<td>Rank (of 275): 001</td>
<td>Maximum concentration = 340 ug/L; continuous concentration = 150 ug/L</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>California - Priority Toxic Pollutants</th>
<th>California - Priority Toxic Pollutants</th>
</tr>
</thead>
<tbody>
<tr>
<td>FERROUS ARSENATE</td>
<td>Maximum concentration = 69 ug/L; continuous concentration = 36 ug/L</td>
</tr>
</tbody>
</table>

### 11. TRANSPORT INFORMATION

#### IMDG/IMO

**Proper shipping name:** Ferric arsenate

IMDG - Hazard Classifications

- IMDG class or division = 6.1, P

IMDG - Marine Pollutants

- UN1606

IMDG - Severe Marine Pollutants

- UN1606

IMDG - Regulated Substances

- UN1606

IMDG - Severe Marine Pollutants

- Not Applicable

**IMO-labels:**

- **Packing group:** II
- **Proper shipping name:** Ferric arsenate
- **UN/Id No.:** 1606

#### ADR/RID

**Australia Hazardous Statement: **Hazardous according to criteria of NOHSC

**Hazard Class**

- 6.1

**Item:** FERROUS ARSENATE

**ADR/RID-labels:**

- Toxic
- UN/Id No.: 1606

**Emergency Action Code (Hazchem code):** 2Z

**Proper shipping name:** Ferric arsenate

#### ICAO:

**Hazard Class**

- 6.1

**Packing group:** II

**Catalog Number:** 224688

**Product name:** FERROUS ARSENATE
12. REGULATORY INFORMATION

International inventories:

FERROUS ARSENATE

Australia (AICS): Present
Inventory - China: Present
EU EINECS List - 233-274-7; AsH3O4.Fe
Korean KECL: KE-21062
Philippines PICCS: Present

Indication of Danger:
T - Toxic.

Risk Combination Phrases
R23/25 - Toxic by inhalation and if swallowed.

Safety Phrases:
S28 - After contact with skin, wash immediately with plenty of water.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

Safety Combination Phrases:
S20/21 - When using, do not eat, drink or smoke.


13. OTHER INFORMATION

Prepared by: Health & Safety
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End of Safety Data Sheet