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: 2,4-DIMETHYLPHENOL
Catalog Number: 212897
Synonyms: 2,4-Dimethylphenol; 4,6-Dimethylphenol; 1-Hydroxy-2,4-Dimethylbenzene; m-Xylenol; 2,4-Xylenol

UN/Id No: 2261
Proper shipping name: Xylenols
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): 2X
Recommended use: Research product for non-human use

Component Australia (AICS): Present

3. PHYSICAL DESCRIPTION/PROPERTIES

Physical state: Liquid
Formula: C8H10O
Molecular weight: 122.17
Boiling point/range: 210 deg. C
Melting point/range: 27 - 28 deg. C
Density: 1.027 g/ml
Vapor pressure: 10 mm Hg at 92.3 °C
Solubility (in water): Soluble

Catalog Number: 212897
Flash point: Not determined
Autoignition temperature: Not determined
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>2,4-DIMETHYLPHENOL</td>
<td>105-67-9</td>
<td>100</td>
<td>203-321-6</td>
<td>T; N</td>
</tr>
</tbody>
</table>

5. HAZARDS IDENTIFICATION

Australia Hazardous Statement: Hazardous according to criteria of NOHSC

Indication of Danger:
T - Toxic.
N - Dangerous For The Environment.

R53 - May cause long-term adverse effects in the aquatic environment.
R51 - Toxic to aquatic organisms.
R34 - Causes burns.
R24/25 - Toxic in contact with skin and if swallowed.

Safety Phrases:
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S61 - Avoid release to the environment. Refer to special instructions/Safety data sheets.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

Category of Danger: Toxic, Dangerous for the environment


6. HEALTH HAZARD INFORMATION

HEALTH EFFECTS

EMERGENCY OVERVIEW: Harmful to flora, fauna, soil organisms and aquatic organisms. Toxic if swallowed.
May be toxic by inhalation or skin contact.

Principle routes of exposure:
Skin
Inhalation: Harmful by inhalation.
Ingestion: Toxic if swallowed.
Skin contact: Harmful in contact with skin.
Eye contact: Risk of serious damage to eyes

Statements of hazard: Toxic if swallowed
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 and seek medical advice
Ingestion: Do not induce vomiting without medical advice.
Eye contact: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Protection of first-aiders: No information available
Notes to physician: None
Medical conditions aggravated by exposure: None known

7. PRECAUTIONS FOR USE

Section 8 Notes: TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life. According to current knowledge this concentration should neither impair the health or, not cause undue discomfort to, nearly all workers.

Engineering measures: Ensure adequate ventilation.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection: Self-contained breathing apparatus
Hand protection: PVC disposable gloves
Skin and body protection: Usual safety precautions while handling the product will provide adequate protection against this potential effect.
Eye protection: Safety glasses
Hygiene measures: Avoid contact with skin, eyes and clothing.

8. SAFE HANDLING INFORMATION

Storage: ROOM TEMPERATURE

Handling: Use only in area provided with appropriate exhaust ventilation.
Safe handling advice: Wear personal protective equipment.

Stability: Stable under recommended storage conditions.
Polymerization: None under normal processing.
Hazardous decomposition products: Thermal decomposition can lead to release of irritating gases and vapours such as carbon oxides.
Materials to avoid: Bases Acid chlorides Acid anhydrides Oxidising agents Corrodes steel. Brass Copper Copper alloys
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>2,4-DIMETHYLPHENOL</td>
<td>ZE5600000</td>
<td>Oral LD50 Rat : 3200 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oral LD50 Mouse : 809 mg/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: No data is available on the product itself.
Mutagenic effects: No data is available on the product itself.
Reproductive toxicity: No data is available on the product itself.

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.
Components | U.S. DOT - Appendix B - Marine Pollutants | U.S. DOT - Appendix B - Severe Marine Pollutants | United Kingdom - The Red List:
---|---|---|---
2,4-DIMETHYLPHENOL | Not Listed | Not Listed | Not Listed

Components | Germany VCI (WGK) | World Health Organization (WHO) - Drinking Water | Ecotoxicity - Fish Species Data
---|---|---|---
2,4-DIMETHYLPHENOL | Not Listed | Not Listed | LC50 (96 hr) fathead minnow: 16-18 mg/L.
Cond: Flow-through, 23-27 °C, pH 7.58-9.10, 43.3-48.5 mg/L CaCO3.; LC50 (96 hr) bluegill: 6.3-9.6 mg/L.
Cond: Static, 21-23 °C, pH 6.7-7.8, 32-48 mg/L CaCO3.

Components | Ecotoxicity - Freshwater Algae Data | Ecotoxicity - Microtox Data | Ecotoxicity - Water Flea Data
---|---|---|---
2,4-DIMETHYLPHENOL | Not Listed | EC50 (5, 15, 30 min) Photobacterium phosphoreum: 2.49-4.0 mg/L Microtox test.: | EC50 (48 hr) water flea: 1.8-2.5 mg/L. Cond: Static, 21-23 °C, pH 6.7-8.1, 72 mg/L CaCO3.

Components | EPA - ATSDR Priority List | EPA - HPV Challenge Program Chemical List indicator 0; Not sponsored | California - Priority Toxic Pollutants
---|---|---|---
2,4-DIMETHYLPHENOL | Rank (of 275): 188 | Not Listed | Not Listed

Components | California - Priority Toxic Pollutants | California - Priority Toxic Pollutants
---|---|---
2,4-DIMETHYLPHENOL | Water and organisms = 540 µg/L; organisms only = 2,300 µg/L | Not Listed

11. TRANSPORT INFORMATION

IMDG/IMO

Proper shipping name: Xylenols
IMDG - Hazard Classifications: Not Applicable
IMDG - Marine Pollutants: Not Applicable
IMDG - Marine Pollutants: Not Applicable
IMDG - Regulated Substances: Not Applicable
IMDG - Severe Marine Pollutants: Not Applicable

IMO-labels:

Packing group: II
Proper shipping name: Xylenols
UN/Id No: 2261

ADR/RID

Australia Hazardous Statement: Hazardous according to criteria of NOHSC
Hazard Class: 6.1
Item: 2,4-DIMETHYLPHENOL
ADR/RID-labels: Toxic
UN/Id No: 2261
Emergency Action Code (Hazchem code): 2X
Proper shipping name: Xylenols
ICAO:

<table>
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<tr>
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<td>Xylenols</td>
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</tbody>
</table>

### 12. REGULATORY INFORMATION

#### International inventories:

- 2,4-DIMETHYLPHENOL
  - Australia (AICS): Present
  - Inventory - China: Present
  - EU EINECS List - 203-321-6; C8H10O
  - Korean KECL: KE-11763
  - Philippines PICCS: Present

**Contains:** 2,4-DIMETHYLPHENOL  
**Indication of Danger:**  
T - Toxic.  
N - Dangerous For The Environment.

#### Risk Combination Phrases

- R53 - May cause long-term adverse effects in the aquatic environment.  
- R51 - Toxic to aquatic organisms.  
- R34 - Causes burns.  
- R24/25 - Toxic in contact with skin and if swallowed.

#### Safety Phrases:

- S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
- S61 - Avoid release to the environment. Refer to special instructions/Safety data sheets.  
- S45 - In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

#### Safety Combination Phrases:

- S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

#### Poisons schedule No. (Aust)/Toxic Substance (NZ):

- S6   Poison.

### 13. OTHER INFORMATION

**Prepared by:** Health & Safety

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**End of Safety Data Sheet**