



# Material Safety Data Sheet

## HAZARDOUS

Catalog Number: 157756

Revision date: 08-Mar-2005

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

### 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:** DIISOPROPYLFLUOROPHOSPHATE  
**Catalog Number:** 157756  
**Synonyms:** Isofluorphate; Isopropyl phosphorofluoridate; Difluorophate

**UN/Id No:** 2810  
**Proper shipping name:** Toxic liquid, organic, n.o.s.  
**IATA Hazard Label(s):** Toxic  
**Hazard Class:** 6.1  
- Toxic substances - oral  
**Subsidiary risk:** No Subsidiary Risk allocated  
**Packing group:** I

**Emergency Action Code (Hazchem code):** 2XE  
**Poisons schedule No. (Aust)/Toxic Substance (NZ):** S7 Dangerous Poison.  
**Recommended use:** Research product for non-human use

**Component** **Australia (AICS):**  
DIISOPROPYLFLUOROPHOSPHAT Present  
E  
55-91-4 (100)

### 3. PHYSICAL DESCRIPTION/PROPERTIES

**Physical state:** Liquid  
**Formula:** C<sub>6</sub>H<sub>14</sub>FO<sub>3</sub>P  
**Boiling point/range:** 62°C @ 9 mm  
**Melting point/range:** -82  
**Density:** 1.06 g/ml  
**Vapor pressure:** 0.579 mm Hg at 20 °C  
**Solubility (in water):** Soluble

Catalog Number: 157756

Product name:  
DIISOPROPYLFLUOROPHOSPHATE

Page 1 of 6

Flash point: Not determined  
 Autoignition temperature: Not determined  
 Flammable limits in air - lower (%): Not determined  
 Flammable limits in air - upper (%): Not determined

#### 4. INGREDIENTS

Components	CAS Number	Weight %	EC No.	Classification
DIISOPROPYLFLUOROPHOSPHATE	55-91-4	100	200-247-6	T+

#### 5. HAZARDS IDENTIFICATION

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



**Indication of Danger:**

T+ - Very toxic.

**Risk Phrases:**

R28 - Very toxic if swallowed.

**Safety Phrases:**

S28 - After contact with skin, wash immediately with plenty of water.

S29 - Do not empty into drains.

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:** Very Toxic

**Poisons schedule No. (Aust)/Toxic Substance (NZ):** S7 Dangerous Poison.

#### 6. HEALTH HAZARD INFORMATION

##### HEALTH EFFECTS

**EMERGENCY OVERVIEW:**

**Principle routes of exposure:**

**Inhalation:**

**Ingestion:**

**Skin contact:**

**Eye contact:**

**Statements of hazard**

Very toxic if swallowed. May be toxic by skin contact or inhalation.

Skin

Harmful by inhalation.

Very toxic if swallowed.

Harmful in contact with skin.

Risk of serious damage to eyes

Very toxic if swallowed

Components	<b>Australian Exposure Standards - Carcinogens</b>	<b>Australia - Exposure Standards - Short</b>
DIISOPROPYLFLUOROPHOSPHATE	Not Listed	Not Listed

Components	<b>Australia - Exposure Standards - Skin E</b>	<b>Australia - Exposure Standards - Time W</b>
DIISOPROPYLFLUOROPHOSPHATE	Not Listed	Not Listed

## FIRST AID

<b>General advice:</b>	In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
<b>Inhalation:</b>	Move to fresh air. Call a physician immediately.
<b>Skin contact:</b>	Rinse immediately with plenty of water and seek medical advice
<b>Ingestion:</b>	Call a physician immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.
<b>Eye contact:</b>	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
<b>Protection of first-aiders:</b>	No information available
<b>Notes to physician:</b>	None
<b>Medical conditions aggravated by exposure:</b>	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:

+4°C  
DESICCATE

### Handling:

#### Safe handling advice:

#### Technical measures/storage conditions:

Use only in area provided with appropriate exhaust ventilation.

Wear personal protective equipment.

Keep containers tightly closed in a cool, well-ventilated place.

<b>Stability:</b>	Stable under recommended storage conditions.
<b>Polymerization:</b>	None under normal processing.
<b>Hazardous decomposition products:</b>	Fluorine (F-) Potassium oxides (K <sub>2</sub> O)
<b>Materials to avoid:</b>	Strong oxidising agents Strong bases
<b>Conditions to avoid:</b>	Exposure to air or moisture over prolonged periods.

### Spills and Disposal:

<b>Personal precautions:</b>	Use personal protective equipment.
<b>Environmental precautions:</b>	Prevent product from entering drains.
<b>Methods for cleaning up:</b>	Sweep up and shovel into suitable containers for disposal.
<b>Waste from residues / unused products:</b>	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.
<b>Contaminated packaging:</b>	Do not re-use empty containers

### Fire/Explosion Hazards:

<b>Suitable extinguishing media:</b>	Use dry chemical, CO <sub>2</sub> , water spray or "alcohol" foam
<b>Specific hazards:</b>	Burning produces irritant fumes.
<b>Unusual hazards:</b>	None known
<b>Special protective equipment for firefighters:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear
<b>Specific methods:</b>	Water mist may be used to cool closed containers.

## 9. TOXICOLOGICAL INFORMATION

### Product Information

#### Acute toxicity

Components	RTECS Number:	Selected LD50s and LC50s
DIISOPROPYLFLUOROPHOSPHATE	TE5075000	Inhalation LC50 Rat : 360 mg/m <sup>3</sup> /10M Inhalation LC50 Mouse : 440 mg/m <sup>3</sup> /10M Oral LD50 Rat : 5 mg/kg Oral LD50 Mouse : 2 mg/kg

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

## 10. ECOLOGICAL INFORMATION

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

<b>Components</b>	<b>U.S. DOT - Appendix B - Marine Pollutan</b>	<b>U.S. DOT - Appendix B - Severe Marine Pollutants</b>	<b>United Kingdom - The Red List:</b>
DIISOPROPYLFLUOROPHOSPHATE	Not Listed	Not Listed	Not Listed

<b>Components</b>	<b>Germany VCI (WGK)</b>	<b>World Health Organization (WHO) - Drinking Water</b>	<b>Ecotoxicity - Fish Species Data</b>
DIISOPROPYLFLUOROPHOSPHATE	Not Listed	Not Listed	Not Listed

<b>Components</b>	<b>Ecotoxicity - Freshwater Algae Data</b>	<b>Ecotoxicity - Microtox Data</b>	<b>Ecotoxicity - Water Flea Data</b>
DIISOPROPYLFLUOROPHOSPHATE	Not Listed	Not Listed	Not Listed

<b>Components</b>	<b>EPA - ATSDR Priority List</b>	<b>EPA - HPV Challenge Program Chemical List</b>	<b>California - Priority Toxic Pollutants</b>
DIISOPROPYLFLUOROPHOSPHATE	Not Listed	Not Listed	Not Listed

<b>Components</b>	<b>California - Priority Toxic Pollutants</b>	<b>California - Priority Toxic Pollutants</b>
DIISOPROPYLFLUOROPHOSPHATE	Not Listed	Not Listed

## 11. TRANSPORT INFORMATION

### IMDG/IMO

**Proper shipping name:** Toxic liquid, organic, n.o.s.  
**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:** I  
**Proper shipping name:** Toxic liquid, organic, n.o.s.  
**UN/Id No:** 2810

### ADR/RID

**Australia Hazardous Statement:** Hazardous according to criteria of NOHSC  
**Hazard Class** 6.1  
**Item:** DIISOPROPYLFLUOROPHOSPHATE  
**ADR/RID-labels:** Toxic  
**UN/Id No:** 2810  
**Emergency Action Code (Hazchem code):** 2XE  
**Proper shipping name:** Toxic liquid, organic, n.o.s.

### ICAO:

Hazard Class 6.1  
Packing group: I  
Proper shipping name: Toxic liquid, organic, n.o.s.

## 12. REGULATORY INFORMATION

### International inventories:

DIISOPROPYLFLUOROPHOSPHATE

**Australia (AICS):** Present  
**Inventory - China:** Present  
**EU EINECS List -** 200-247-6; C6H14FO3P

### **Indication of Danger:**

T+ - Very toxic.



**Risk Phrases:** R28 - Very toxic if swallowed.

**Safety Phrases:** S28 - After contact with skin, wash immediately with plenty of water.

S29 - Do not empty into drains.

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):** S7 Dangerous Poison.

## 13. OTHER INFORMATION

**Prepared by:** Health & Safety

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**End of Safety Data Sheet**