

# Safety data sheet

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BASF Australia Limited Safety data sheet

Date / Revised: 00.00.0000

Product: **FRONTIER® P**

Version: 1.0

656 08 H  
(30270289/SDS\_CPA\_AU/EN)

Date of print 17.07.2007

## 1. Substance/preparation and company identification

### FRONTIER® P

Use: crop protection product, herbicide

#### Company:

BASF Australia Limited (ABN 62 008 437 867)  
500 Princes Highway Noble Park  
Victoria 3174, AUSTRALIA  
Telephone: +61 3 9212-1500  
Telefax number: +61 3 9212-1511

#### Emergency information:

1800 803 440 (24h) [within Australia]  
+61 3 9212-1666 [outside Australia]

## 2. Hazard identification

HAZARDOUS SUBSTANCE, DANGEROUS GOOD

Harmful if swallowed.

Irritating to eyes.

May cause sensitization by skin contact.

Repeated exposure may cause skin dryness or cracking.

Vapours may cause drowsiness and dizziness.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Keep out of the reach of children.

Keep away from food, drink and animal feeding stuffs.

When using do not eat, drink or smoke.

Avoid contact with skin.

This material and its container must be disposed of in a safe way.

Wear suitable gloves.

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If swallowed, seek medical advice immediately and show this container or label.  
Use appropriate container to avoid environmental contamination.

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### 3. Composition/information on ingredients

#### Chemical nature

crop protection product, herbicide, emulsion concentrate (EC)

#### Hazardous ingredients

Dimethenamide-P

Content (W/W): 63.7 %  
CAS Number: 163515-14-8

solvent naphtha

Content (W/W):  $\geq 25\%$  -  $\leq 27.6\%$   
CAS Number: 64742-94-5

polymer amine phosphate preparation

Content (W/W):  $\geq 9\%$  -  $\leq 11\%$

The wording of the hazard symbols and R-phrases is specified in chapter 16 if dangerous ingredients are mentioned.

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### 4. First-aid measures

General advice:

Avoid contact with the skin, eyes and clothing. Take off immediately all contaminated clothing. If difficulties occur: Obtain medical attention. Show container, label and/or safety data sheet to physician.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

After contact with skin, wash immediately with plenty of water and soap. If irritation develops, seek medical attention.

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Rinse mouth immediately and then drink plenty of water, seek medical attention. Do not induce vomiting unless told to by a poison control center or doctor. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

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Note to physician:

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

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## 5. Fire-fighting measures

Suitable extinguishing media:  
water spray, foam, dry extinguishing media

Specific hazards:  
carbon monoxide, hydrogen chloride, nitrogen oxides, organochloric compounds  
The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:  
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:  
In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

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## 6. Accidental release measures

Personal precautions:  
Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Remove contaminated clothes, undergarments and shoes immediately.

Environmental precautions:  
Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

Methods for cleaning up or taking up:  
For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).  
For large amounts: Dike spillage. Pump off product.  
Cleaning operations should be carried out only while wearing breathing apparatus. Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

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## 7. Handling and storage

### Handling

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas.

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Protection against fire and explosion:

The product is combustible. Vapours may form ignitable mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

#### Storage

Segregate from foods and animal feeds. Segregate from strong oxidizing agents. Further information on storage conditions: Keep away from heat. Protect against moisture. Protect from direct sunlight.

Storage stability:

Storage duration: 24 Months

Protect from temperatures below: -10 °C

The product can crystallize below the limit temperature.

Protect from temperatures above: 40 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

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## 8. Exposure controls and personal protection

#### Components with workplace control parameters

no exposure standard allocated

#### Personal protective equipment

Respiratory protection:

Breathing protection if gases/vapours are formed. Wear respiratory protection if ventilation is inadequate. Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:

The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Avoid contact with the skin, eyes and clothing. Wearing of closed work clothing is recommended. Take off immediately all contaminated clothing. Store work clothing separately. Keep away from food, drink and animal feeding stuffs. No eating,

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drinking, smoking or tobacco use at the place of work. Hands and/or face should be washed before breaks and at the end of the shift.

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## 9. Physical and chemical properties

Form:	liquid
Colour:	dark brown
Odour:	aromatic
pH value:	approx. 3.1 (1 %(m), 20 °C)
Flash point:	approx. 105 °C
Ignition temperature:	approx. 425 °C
Density:	approx. 1.11 - 1.14 g/cm <sup>3</sup> (20 °C)
Solubility in water:	emulsifiable
Surface tension:	approx. 32.0 mN/m (20 °C; 0,2%)
Viscosity, dynamic:	approx. 43.6 mPa.s (20 °C)
Viscosity, kinematic:	14.7 mm <sup>2</sup> /s (40 °C)

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## 10. Stability and reactivity

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:  
strong oxidizing agents

Hazardous reactions:  
No hazardous reactions if stored and handled as prescribed/indicated.

Hazardous decomposition products:  
No hazardous decomposition products if stored and handled as prescribed/indicated.

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## 11. Toxicological information

### Acute toxicity

LD50 rat (oral): 1,581 mg/kg

The statement for acute oral toxicity was derived from products of similar composition.

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LC50 rat (by inhalation): > 5.6 mg/l 4 h

The statement for acute inhalative toxicity was derived from products of similar composition.

LD50 rat (dermal): > 4,000 mg/kg

The statement for acute dermal toxicity was derived from products of similar composition.

### **Irritation**

Primary skin irritation rabbit: non-irritant

The statement for skin irritation was derived from products of similar composition.

Primary irritations of the mucous membrane rabbit: Irritant.

### **Sensitization**

guinea pig: Caused skin sensitization in animal studies.

The statement for sensitization was derived from products of similar composition.

### **Other relevant toxicity information**

Misuse can be harmful to health.

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## **12. Ecological information**

### **Ecotoxicity**

Toxicity to fish:

LC50 (96 h) 7.94 mg/l, *Oncorhynchus mykiss*

Aquatic invertebrates:

EC50 (48 h) 17.1 mg/l, *Daphnia magna*

Aquatic plants:

EC50 (72 h) 0.1327 mg/l, *Scenedesmus subspicatus*

### **Persistence and degradability**

Elimination information:

Not readily biodegradable (by OECD criteria).

### **Additional information**

Other ecotoxicological advice:

The product has not been tested. The statement has been derived from products of a similar structure and composition. Do not discharge product into the environment without control.

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## **13. Disposal considerations**

Must be dumped or incinerated in accordance with local regulations.

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Contaminated packaging:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

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## 14. Transport information

### **Domestic transport:**

Hazard class: 9  
Packing group: III  
ID number: UN 3082  
Hazard label: 9  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(contains DIMETHENAMID-P 64%, SOLVENT NAPHTHA)

### **Further information**

Hazchem Code:3Z

IERG Number:47

### **Sea transport**

IMDG

Hazard class: 9  
Packing group: III  
ID number: UN 3082  
Hazard label: 9  
Marine pollutant: YES  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
contains (DIMETHENAMID-P 64%, SOLVENT NAPHTHA)

### **Air transport**

IATA/ICAO

Hazard class: 9  
Packing group: III  
ID number: UN 3082  
Hazard label: 9  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
contains (DIMETHENAMID-P 64%, SOLVENT NAPHTHA)

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## 15. Regulatory information

Poisons Schedule: Not scheduled

### **Regulations of the European union (Labelling)**

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EEC Directives:

## Hazard symbol(s)

Xn	Harmful.
N	Dangerous for the environment.

## R-phrases(s)

R22	Harmful if swallowed.
R36	Irritating to eyes.
R43	May cause sensitization by skin contact.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## S-phrases(s)

S2	Keep out of the reach of children.
S13	Keep away from food, drink and animal feeding stuffs.
S20/21	When using do not eat, drink or smoke.
S24	Avoid contact with skin.
S35	This material and its container must be disposed of in a safe way.
S37	Wear suitable gloves.
S46	If swallowed, seek medical advice immediately and show this container or label.
S57	Use appropriate container to avoid environmental contamination.

Hazard determining component(s) for labelling: SOLVENT NAPHTHA, DIMETHENAMIDE-P, polymer amine phosphate preparation

Other regulations

For the user of this plant-protective product applies: 'To avoid risks to man and the environment, comply with the instructions for use.' (Directive 1999/45/EC, Article 10, No. 1.2)

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**16. Other information**

Full text of hazard symbols and R-phrases if mentioned as hazardous components in chapter 3:

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Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.