

Safety data sheet

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BASF Safety data sheet
Date / Revised: 15.05.2019
Product: **FREEHAND HERBICIDE**

Version: 1.0

(10824175/SDS_CPA_AU/EN)

Date of print 31.05.2019

1. Substance/preparation and manufacturer/supplier identification

FREEHAND HERBICIDE

Manufacturer/supplier:

BASF Australia Limited (ABN 62 008 437 867)
Level 12, 28 Freshwater Place Southbank
Victoria 3006, AUSTRALIA
Telephone: +61 3 8855-6600
Telefax number: +61 3 8855-6511

Emergency information:

BASF Emergency Advice Number: 1800 803 440 (24h) [within Australia]
BASF Emergency Advice Number: + 61 3 8855 6666 [outside Australia]

2. Hazard identification

Classification of the substance and mixture:

Serious eye damage/eye irritation: Cat. 2A
Hazardous to the aquatic environment - acute: Cat. 1
Hazardous to the aquatic environment - chronic: Cat. 2

Label elements and precautionary statement:

Pictogram:



Signal Word:

Warning

Hazard Statement:

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H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
H400 Very toxic to aquatic life.

Precautionary Statement:

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.

Precautionary Statements (Prevention):

P264 Wash contaminated body parts thoroughly after handling.
P280 Wear protective gloves/clothing/eye protection.

Precautionary Statements (Response):

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P311 If eye irritation persists: Call a POISON CENTER or doctor/physician.
P391 Collect spillage.

Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection point.

Other hazards which do not result in classification:

See section 12 - Results of PBT and vPvB assessment.

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

May produce an allergic reaction. Contains: PENDIMETHALIN, DIMETHENAMID-P

3. Composition/information on ingredients

Chemical nature

crop protection product, herbicide, Granule (GR)

Hazardous ingredients

pendimethalin

Content (W/W): 1 %

CAS Number: 40487-42-1

Acute Tox.: Cat. 5 (oral)

Skin Sens.: Cat. 1B

Aquatic Acute: Cat. 1

Aquatic Chronic: Cat. 1

M-factor acute: 100

M-factor chronic: 10

dimethenamid-P (ISO); (S)-2-chloro-N-(2,4-dimethyl-3-thienyl)-N-(2-methoxy-1-methylethyl)acetamide

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Content (W/W): 0.75 %
CAS Number: 163515-14-8

Acute Tox.: Cat. 4 (oral)
Skin Sens.: Cat. 1
Aquatic Acute: Cat. 1
Aquatic Chronic: Cat. 1
M-factor acute: 10
M-factor chronic: 10

4. First-Aid Measures

General advice:

Remove contaminated clothing.

If inhaled:

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

On skin contact:

Wash thoroughly with soap and water.

On contact with eyes:

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

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Note to physician:

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., (Further) symptoms and / or effects are not known so far

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

5. Fire-Fighting Measures

Suitable extinguishing media:

dry powder, foam, water spray

Unsuitable extinguishing media for safety reasons:

carbon dioxide

Specific hazards:

carbon monoxide, carbon dioxide

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:

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. In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire.

6. Accidental Release Measures

Personal precautions:

Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Avoid dust formation.

Environmental precautions:

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

Methods for cleaning up or taking up:

For small amounts: Contain with dust binding material and dispose of.

For large amounts: Sweep/shovel up.

Avoid raising dust. Dispose of absorbed material in accordance with regulations. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

Collect waste in suitable containers, which can be labeled and sealed.

7. Handling and Storage

Handling

Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. No special measures necessary if stored and handled correctly.

Protection against fire and explosion:

Avoid dust formation. Dust can form an explosive 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.

Further information on storage conditions: Keep away from heat. Protect from direct sunlight. Protect against moisture.

Storage stability:

Storage duration: 24 Months

8. Exposure controls and personal protection

Components with occupational exposure limits

No occupational exposure limits known.

Personal protective equipment

Respiratory protection:

Respiratory protection not required.

Hand protection:

Chemical resistant protective gloves

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

Body protection:
Standard work clothes and shoes.

General safety and hygiene measures:
Avoid contact with the skin, eyes and clothing. In order to prevent contamination while handling, closed working clothes and working gloves should be used. Wash contaminated clothing before reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Before eating, drinking, or smoking, wash face and hands with soap and water.

9. Physical and Chemical Properties

Form: granules
Colour: yellow to brown
Odour: characteristic
Odour threshold: Not determined due to potential health hazard by inhalation.

pH value: approx. 3.0 - 5.0
(25 °C)

Melting point: > 100 °C
The statements are based on the properties of the individual components.

Boiling point: The product has not been tested.

Flash point: not applicable

Evaporation rate: not applicable

Flammability (solid/gas): Based on the structure or composition there is no indication of flammability

Lower explosion limit: As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.

Upper explosion limit: As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.

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

Self ignition: not self-igniting
Information based on the main components.

Self heating ability: It is not a substance capable of spontaneous heating.

Explosion hazard: not explosive
Fire promoting properties: not fire-propagating

Vapour pressure: not applicable

Bulk density: approx. 660 kg/m³
(20 °C)

Relative vapour density (air): not applicable

Solubility in water: dispersible
Information on: pendimethalin
Partitioning coefficient n-octanol/water (log Pow): 5.2
(25 °C)

Information on: dimethenamid-P (ISO); (S)-2-chloro-N-(2,4-dimethyl-3-thienyl)-N-(2-methoxy-1-methylethyl)acetamide
Partitioning coefficient n-octanol/water (log Pow): 1.89

Viscosity, dynamic: not applicable, the product is a solid

10. Stability and Reactivity

Conditions to avoid:
See MSDS section 7 - Handling and storage.

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

Substances to avoid:
strong oxidizing agents, strong bases, strong acids

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.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

Experimental/calculated data:

LD50 rat (oral): > 2,000 mg/kg (OECD Guideline 423)

No mortality was observed.

LC50 rat (by inhalation): > 5.103 mg/l

No mortality was observed. An aerosol with respirable particles was tested.

LD50 rat (dermal): > 2,000 mg/kg (OECD Guideline 402)

No mortality was observed.

Irritation

Assessment of irritating effects:

Eye contact causes irritation. Not irritating to the skin.

Experimental/calculated data:

Skin corrosion/irritation rabbit: (OECD Guideline 404)

Serious eye damage/irritation rabbit: (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:

There is no evidence of a skin-sensitizing potential.

Experimental/calculated data:

Buehler test guinea pig:

Germ cell mutagenicity

Assessment of mutagenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Assessment of carcinogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pendimethalin

Assessment of carcinogenicity:

In long-term studies in rats the substance induced thyroid tumors. The effect is caused by an animal specific mechanism that has no human counter part. In long-term studies in mice in which the substance was given by feed, a carcinogenic effect was not observed.

Reproductive toxicity

Assessment of reproduction toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity**Assessment of teratogenicity:**

The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Specific target organ toxicity (single exposure):**Assessment of STOT single:**

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Remarks: The product has not been tested. The statement has been derived from the properties of the individual components.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)**Assessment of repeated dose toxicity:**

The product has not been tested. The statement has been derived from the properties of the individual components. The respiratory fraction is < 0.1 %, therefore the classification regarding inhalation toxicity does not apply.

Information on: pendimethalin**Assessment of repeated dose toxicity:**

No substance-specific organotoxicity was observed after repeated administration to animals. Adaptive effects were observed after repeated exposure in animal studies.

Information on: dimethenamid-P (ISO); (S)-2-chloro-N-(2,4-dimethyl-3-thienyl)-N-(2-methoxy-1-methylethyl)acetamide**Assessment of repeated dose toxicity:**

Adaptive effects were observed after repeated exposure in animal studies.

Aspiration hazard

No aspiration hazard expected.

The product has not been tested. The statement has been derived from the properties of the individual components.

Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information**Ecotoxicity**

Assessment of aquatic toxicity:

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pendimethalin**Toxicity to fish:**

LC50 (96 h) 0.196 mg/l, *Oncorhynchus mykiss*

Information on: dimethenamid-P (ISO); (S)-2-chloro-N-(2,4-dimethyl-3-thienyl)-N-(2-methoxy-1-methylethyl)acetamide**Toxicity to fish:**

LC50 (96 h) 6.3 mg/l, *Oncorhynchus mykiss*

Information on: pendimethalin**Aquatic invertebrates:**

EC50 (48 h) 0.147 mg/l, *Daphnia magna*

Information on: dimethenamid-P (ISO); (S)-2-chloro-N-(2,4-dimethyl-3-thienyl)-N-(2-methoxy-1-methylethyl)acetamide**Aquatic invertebrates:**

EC50 (48 h) 12 mg/l, *Daphnia magna*

Information on: pendimethalin**Aquatic plants:**

EC50 (7 d) 0.012 mg/l, *Lemna gibba*

EC10 (7 d) 0.0029 mg/l, *Lemna gibba*

No observed effect concentration (7 d) 0.003 mg/l, *Lemna gibba*

EC50 (72 h) 0.0093 mg/l, *Selenastrum capricornutum*

EC10 (72 h) 0.0028 mg/l, *Selenastrum capricornutum*

Information on: dimethenamid-P (ISO); (S)-2-chloro-N-(2,4-dimethyl-3-thienyl)-N-(2-methoxy-1-methylethyl)acetamide**Aquatic plants:**

EC50 (72 h) 0.0303 mg/l (growth rate), *Pseudokirchneriella subcapitata*

EC10 (72 h) 0.0156 mg/l (growth rate), *Pseudokirchneriella subcapitata*

EC50 (14 d) 0.031 mg/l (growth rate), *Lemna gibba*

EC10 (14 d) 0.0064 mg/l (growth rate), *Lemna gibba*

Mobility

Assessment transport between environmental compartments:

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The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pendimethalin

Assessment transport between environmental compartments:

The substance will slowly evaporate into the atmosphere from the water surface.

Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Information on: dimethenamid-P (ISO); (S)-2-chloro-N-(2,4-dimethyl-3-thienyl)-N-(2-methoxy-1-methylethyl)acetamide

Assessment transport between environmental compartments:

Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pendimethalin

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria).

Information on: dimethenamid-P (ISO); (S)-2-chloro-N-(2,4-dimethyl-3-thienyl)-N-(2-methoxy-1-methylethyl)acetamide

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria).

Information on: Quartz (SiO₂)

Assessment biodegradation and elimination (H₂O):

Inorganic product which cannot be eliminated from water by biological purification processes. The product is not very soluble in water and can thus be removed from water mechanically in suitable effluent treatment plants.

Bioaccumulation potential

Assessment bioaccumulation potential:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: pendimethalin

Bioaccumulation potential:

Bioconcentration factor: 3,300

Based on a weight of evidence, the compound will not bioaccumulate.

Information on: dimethenamid-P (ISO); (S)-2-chloro-N-(2,4-dimethyl-3-thienyl)-N-(2-methoxy-1-methylethyl)acetamide

Bioaccumulation potential:

No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).

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Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.

13. Disposal Considerations

Must be sent to a suitable incineration plant, observing local regulations.

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

14. Transport Information

Domestic transport:

Packing group: III
ID number: UN 3077
Transport hazard class(es): 9, EHSM
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(contains PENDIMETHALIN, DIMETHENAMID-P)

Further information

Hazchem Code:2Z
IERG Number:47

Sea transport

IMDG

Packing group: III
ID number: UN 3077
Transport hazard class(es): 9, EHSM
Marine pollutant: YES
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(contains PENDIMETHALIN, DIMETHENAMID-P)

Air transport

IATA/ICAO

Packing group: III
ID number: UN 3077
Transport hazard class(es): 9, EHSM
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(contains PENDIMETHALIN, DIMETHENAMID-P)

Further information

