We create chemistry

Safety Data Sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

PYRAMIN® DF

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: crop protection product, herbicide.

1.3. Details of the supplier of the safety data sheet

Company:
BASF New Zealand Limited
Level 4, 4 Leonard Isitt Drive, Auckland Airport, Auckland 2022
P.O. Box 407, Auckland 1140
Phone: + 64 9 255 4300
Fax: + 64 9 255 4307
E-mail address: reception@basf-nz.co.nz

1.4. Emergency telephone number

National Poisons Centre: 0800 764 766
BASF Emergency Advice Number: 0800 944 955 (24 Hour Advice in an Emergency Only)

SECTION 2. Hazards Identification

2.1. Classification of the substance or mixture

Hazard classification:
6.1E, 6.5B, 9.1A, 9.2A

2.2. Label elements

Pictogram:

Priority Identifier:
Warning.

Secondary Identifiers:
6.1E Harmful. May be harmful if swallowed, inhaled or absorbed through the skin.
6.5B May cause sensitisation from prolonged skin contact.
9.1A Very Toxic to Aquatic Life. May cause long-term adverse effects in the aquatic environment.
9.2A Very Toxic to the Soil Environment. Selective herbicide - very toxic to some plant species (certain plants may be killed or damaged from uptake of this product)..

Hazard determining component(s) for labelling: CHLORIDAZON

2.3. Other hazards

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.

SECTION 3. Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical nature

Crop protection product, herbicide, water dispersible granules (WG).

Hazardous ingredients

Chloridazon (ISO); 5-amino-4-chloro-2-phenylpyridazine-3-(2H)-one; pyrazon
Content (W/W): 65 %
CAS Number: 1698-60-8
EC-Number: 216-920-2
INDEX-Number: 606-035-00-3

Lignosulfonic acid, sodium salt
Content (W/W): < 40 %
CAS Number: 8061-51-6

For the classifications not written out in full in this section, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, the full text is listed in section 16.

SECTION 4. First-Aid Measures

4.1. Description of first aid measures

Remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air.

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.

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

Most important symptoms and effects, both acute and delayed

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

Indication of any immediate medical attention and special treatment needed

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

SECTION 5. Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media:
Water spray, dry powder, foam.

Unsuitable extinguishing media for safety reasons:
Carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon monoxide, Hydrogen chloride, Carbon dioxide, nitrogen oxides, organochloric compounds.
The substances/groups of substances mentioned can be released in case of fire.

5.3 Advice for fire-fighters

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.

SECTION 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Do not breathe vapour/spray.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

For small amounts: Contain with dust binding material and place in covered containers that can be labelled and sealed for proper disposal. (See "Disposal".)
For large amounts: Sweep/shovel up.
Cleaning operations should be carried out only while wearing breathing apparatus. Avoid raising dust. Clean the spill area and contaminated objects thoroughly with water and detergent. Contain and absorb this rinsate with inert absorbents and place into the same covered container as the spilled material. Spills to the soil can be shovelled directly into covered containers for disposal. Dispose of absorbed material in accordance with local regulations.

6.4 Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7. Handling and Storage

APPROVED HANDLER:
This product must be under the control of an APPROVED HANDLER when applied in a wide dispersive manner or used by a commercial contractor.

7.1. Precautions for safe handling

No special measures necessary if stored and handled correctly. 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.

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.

7.2. Conditions for safe storage, including any incompatibilities

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

Storage stability:
Storage duration: 60 Months
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.

AGGREGATE STORAGE VOLUME THRESHOLDS:
When stored with substances of the same hazard the aggregate quantity must be considered. For full details refer to the current standard NZS8409 Management of Agrichemicals or the HSNO Regulations.

Location Certificate*:	**Hazardous Atmosphere Zone*:**	**Fire Extinguishers:**	**Signage [Hazard Class & Emergency Action]:**	**Emergency Information:**	**Emergency Response Plan:**	**Secondary Containment:**
NA	NA	NA	100 kg	1 kg	100 kg	100 kg
* Note: Farms ≥ 4 ha are exempt but with controls.						
DO NOT STORE OR LOAD WITH: Class 1 Explosive			**SEGREGATE FROM:** Food or food containers and animal feedstuff			
Segregation: In store separate by at least 5 metres, on transport separate by at least 3 metres, in both cases horizontally. On vehicles a segregation device may be used: Check the Land Transport Rule Dangerous Goods, Rule 45001 for additional information. Sea transport may require additional segregation. Refer to NZS5433 Sea Segregation for details.						

7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

RECORD KEEPING: Records of use must be kept if 3 kg or more is applied in a place where the substance is likely to enter air or water and leave the place.

NOTE: Storage, application and record keeping must be as described in the current version of the New Zealand Standard for the Management of Agrichemicals NZS8409.

SECTION 8. Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits
1698-60-8: chloridazon (ISO); 5-amino-4-chloro-2-phenylpyridazine-3-(2H)-one; pyrazon
8061-51-6: Lignosulfonic acid, sodium salt

8.2. Exposure controls

Personal protective equipment

Respiratory protection:
Suitable respiratory protection for higher concentrations or long-term effect: Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2).

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) etc.

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. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

SECTION 9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Form:	free flowing fine granules
Colour:	dark brown
Odour:	moderate odour, smoky
Odour threshold:	Not determined since harmful by inhalation.
pH value:	approx. 8 - 10 (1 %(m), approx. 20 °C)
onset of Melting:	> 130 °C. The product has not been tested. The statements are based on the properties of the individual components.
Boiling point:	The product is a non-volatile solid.
Flash point:	not applicable
Evaporation rate:	not applicable
Flammability:	not highly flammable (Directive 92/69/EEC, A.10)
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.
Vapour pressure:	The product has not been tested.
Relative vapour density (air):	not applicable
Solubility in water:	dispersible

Information on: chloridazon (ISO); 5-amino-4-chloro-2-phenylpyridazine-3-(2H)-one; pyrazon

Partitioning coefficient n-octanol/water (log Kow):	1.19 (pH value: 7) (OECD Guideline 107)
Self-ignition:	not self-igniting (Method: Directive 92/69/EEC, A.16)
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Viscosity, dynamic:	not applicable, the product is a solid
Explosion hazard:	Based on the chemical structure there is no indicating of explosive properties.

Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.
Bulk density:	approx. 571 - 656 kg/m3 (20 °C)

9.2. Other information

Other Information:
If necessary, information on other physical and chemical parameters is indicated in this section.

SECTION 10. Stability and Reactivity

10.1. Reactivity

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

10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions

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

10.4. Conditions to avoid

See SDS section 7 - Handling and storage.

10.5. Incompatible materials

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

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

SECTION 11. Toxicological Information

11.1. Information on toxicological effects

Acute toxicity
Assessment of acute toxicity:
Of moderate toxicity after single ingestion. Of moderate toxicity after short-term inhalation. Virtually nontoxic after a single skin contact.

Experimental/calculated data:
LD50 rat (oral): 1.160 mg/kg (OECD Guideline 401)
LC50 rat (by inhalation): 3.28 mg/l 4 h (OECD Guideline 403). An aerosol was tested.
LD50 rat (dermal): > 2.000 mg/kg (OECD Guideline 402) No mortality was observed.

Irritation
Assessment of irritating effects:
Not irritating to the eyes. Not irritating to the skin.

Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404).

Serious eye damage/irritation rabbit: non-irritant (OECD Guideline 405).

Respiratory/Skin sensitization
Assessment of sensitization:
Sensitization after skin contact possible.

Experimental/calculated data:
Mouse Local Lymph Node Assay (LLNA) mouse: Caused skin sensitization in animal studies. (OECD Guideline 429) test guinea pig: skin sensitizing (OECD Guideline 406).

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

Carcinogenicity
Assessment of carcinogenicity:
The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

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. No substance-specific organ toxicity was observed after repeated administration to animals.

Information on: chloridazon (ISO); 5-amino-4-chloro-2-phenylpyridazine-3-(2H)-one; pyrazon
Assessment of repeated dose toxicity:
Repeated exposure to large quantities may affect certain organs.

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.

SECTION 12. Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:
Toxic to aquatic life with long lasting effects.

Toxicity to fish:
LC50 (96 h) 50 mg/l, Oncorhynchus mykiss (OECD 203; ISO 7346; 92/69/EEC, C.1, static)

Aquatic invertebrates:
EC50 (48 h) 79.5 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Aquatic plants:
EC50 (72 h) 4.01 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201)
EC10 (72 h) 0.73 mg/l (growth rate), Pseudokirchneriella subcapitata

12.2. 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: chloridazon (ISO); 5-amino-4-chloro-2-phenylpyridazine-3-(2H)-one; pyrazon
Assessment biodegradation and elimination (H2O):
Not readily biodegradable (by OECD criteria).

12.3. Bioaccumulative potential

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

Information on: chloridazon (ISO); 5-amino-4-chloro-2-phenylpyridazine-3-(2H)-one; pyrazon
Bioaccumulation potential:
No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).

12.4. Mobility in soil

Assessment transport between environmental compartments:
Adsorption in soil: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: chloridazon (ISO); 5-amino-4-chloro-2-phenylpyridaizane-3-(2H)-one; pyrazon
Assessment transport between environmental compartments:
Adsorption in soil: Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.

12.5. Results of PBT and vPvB assessment

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

12.6. Other adverse effects

The product does not contain substances that are listed in the Montreal Protocol on substances that deplete the ozone layer.

12.7. Additional information

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

SECTION 13. Disposal Considerations

To avoid disposal all attempts should be made to use this product completely, in accordance with its registered use. If this is not possible handle with care and dispose of in a safe manner. Follow all applicable community, regional and national regulations regarding waste management methods.

13.1. Waste treatment methods

Container:
Triple rinse empty container and add residue to the spray tank.
Recycle through Agrecovery (0800 247 326, www.agrecovery.co.nz).
Otherwise crush and bury in a suitable landfill. DO NOT REUSE empty container.

Product:
Dispose of this product only by using according to the label or at an approved landfill. DO NOT burn product. For information on disposal of unused, unwanted product, contact the local council.

DO NOT contaminate surface or ground water with chemical or empty container.

SECTION 14. Transport Information

Commercial transport:
Classified as Dangerous Goods for Land/rail (ADR/RID), sea (IMDG/GGVSee) and air transport (ICAO/IATA).

UN number:	UN3077
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains CHLORIDAZON)
Transport hazard class(es):	9, EHSM
	
Packing group:	III
Environmental hazards:	Yes IMDG: Marine pollutant (P)
HAZCHEM:	2[Z]

14.1. UN number

See corresponding entries for “UN number” for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for “UN proper shipping name” for the respective regulations in the tables above.

14.3. Transport hazard class(es)

See corresponding entries for “Transport hazard class(es)” for the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for “Packing group” for the respective regulations in the tables above.

14.5. Environmental hazards

See corresponding entries for “Environmental hazards” for the respective regulations in the tables above.

14.6. Special precautions for user

See corresponding entries for “Special precautions for user” for the respective regulations in the tables above.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

SECTION 15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

To avoid risks to man and the environment, comply with the instructions for use.

NZ Regulations

Approved pursuant to the HSNO Act 1996, Code HSR000439.
See www.epa.govt.nz for approval conditions.

Registered pursuant to the ACVM Act 1997, No. P0815.
See www.foodsafety.govt.nz for registration conditions.

15.2 Chemical Safety Assessment

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

SECTION 16. Other Information

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.

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