We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

Product name:
Goliath® Plus

Use: crop protection product, insecticide

Manufacturer/supplier:
BASF Australia Limited (ABN 62 008 437 867)
Level 23, 40 City Road, Southbank
Victoria 3006, AUSTRALIA
Telephone: +61 3 8855-6600

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:
Skin sensitization: Cat.1
Hazardous to the aquatic environment - acute: Cat.1
Hazardous to the aquatic environment - chronic: Cat.1

Label elements and precautionary statement:

Pictogram:



Signal Word:
Warning

Hazard Statement:

H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statement:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.

Precautionary Statements (Prevention):

P280	Wear protective gloves.
P273	Avoid release to the environment.
P261	Avoid breathing mist or vapour or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements (Response):

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P391	Collect spillage.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Disposal):

P501	Dispose of contents and 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.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

Biocidal product, insecticide

Hazardous ingredients

Fipronil

Content (W/W): 0.04 %	Acute Tox.: Cat. 2 (Inhalation - dust)
CAS Number: 120068-37-3	Acute Tox.: Cat. 3 (oral)
	Acute Tox.: Cat. 3 (dermal)
	STOT RE (Central nervous system): Cat. 1
	Aquatic Acute: Cat. 1
	Aquatic Chronic: Cat. 1
	M-factor acute: 1000
	M-factor chronic: 10000

Chlorfenapyr

Content (W/W): 0.04 %
CAS Number: 122453-73-0

Acute Tox.: Cat. 2 (Inhalation - dust)
Acute Tox.: Cat. 3 (oral)
STOT SE (Central nervous system): Cat. 2
STOT RE (Central nervous system): Cat. 2
Aquatic Acute: Cat. 1
Aquatic Chronic: Cat. 1
M-factor acute: 100
M-factor chronic: 100

glycerol
Content (W/W): < 15 %
CAS Number: 56-81-5

starch
Content (W/W): < 10 %
CAS Number: 9005-25-8

sorbitol
Content (W/W): < 10 %
CAS Number: 50-70-4

4. First-Aid Measures

General advice:
First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product.

On skin contact:
Immediately wash thoroughly with soap and water, seek medical attention. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product.

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 water, do not induce vomiting, seek medical attention. If swallowed, seek medical advice immediately and show this container or label. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product. Do not induce vomiting unless told to by a poison control center or doctor. Take patient to hospital immediately. Medical monitoring for at least 7 days.

Note to physician:

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far, Symptoms of poisoning may only appear after several hours or several days.
Hazards: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available 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:
water spray, dry powder, foam, carbon dioxide

Specific hazards:
carbon monoxide, carbon dioxide, hydrogen chloride, hydrogen fluoride, hydrogen bromide, nitrogen oxides, halogenated compounds, sulfur oxides, phosphorus oxides
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:
Keep containers cool by spraying with water if exposed to fire. In case of fire and/or explosion do not breathe fumes. 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.

6. Accidental Release Measures

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

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: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).
For large amounts: Dike spillage. Pump off product.
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. Wear suitable protective equipment.

7. Handling and Storage

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:
No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

Storage

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

Storage stability:
Storage duration: 24 Months

8. Exposure controls and personal protection

Components with occupational exposure limits

glycerol, 56-81-5;
TWA value 10 mg/m3 (AU NOEL), Inhalable mist
This value is for inhalable dust containing no asbestos and < 1% crystalline silica.
TWA value 10 mg/m3 (OEL (AU)), Inhalable dust

starch, 9005-25-8;
TWA value 10 mg/m3 (ACGIHTLV)
TWA value 10 mg/m3 (AU NOEL), Inhalable dust
This value is for inhalable dust containing no asbestos and < 1% crystalline silica.
TWA value 10 mg/m3 (OEL (AU)), Inhalable dust

Personal protective equipment

Respiratory protection:
Respiratory protection not required.

Hand protection:
Suitable chemical resistant safety gloves (EN ISO 374-1) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1): 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:
Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	liquid
Colour:	dark brown
Odour:	specific
Odour threshold:	Not determined due to potential health hazard by inhalation.
pH value:	approx. 3.5 - 5.5 (20 °C) (as aqueous solution)
Melting point:	The product has not been tested.
Boiling point:	The product has not been tested.
Flash point:	141 °C No flash point - Measurement made up to the indicated temperature.
Evaporation rate:	not applicable
Flammability (solid/gas):	not applicable
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.

Ignition temperature: approx. 460 °C

Thermal decomposition: 130 °C , 230 kJ/kg
(onset temperature)

290 °C , 50 kJ/kg
(onset temperature)

Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

Explosion hazard: not explosive

Fire promoting properties: not fire-propagating

Vapour pressure:
The product has not been tested.

Density: approx. 1.24 g/cm3
(20 °C)

Relative vapour density (air):
not applicable

Solubility in water: dispersible

Partitioning coefficient n-octanol/water (log Pow):
not applicable for mixtures

Viscosity, dynamic: approx. 12.11 mPa.s
not applicable, the product is a solid

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

Particle characteristics

Particle size distribution: The substance / product is marketed or used in a non solid or granular form. -

10. Stability and Reactivity

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

Thermal decomposition:	130 °C, 230 kJ/kg (onset temperature)
Thermal decomposition:	290 °C, 50 kJ/kg

	(onset temperature)
Thermal decomposition:	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

Substances to avoid:
strong acids, strong bases, 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.

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

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

11. Toxicological Information

Routes of exposure

Acute oral toxicity

Experimental/calculated data:
LD50rat (oral): > 5,000 mg/kg
No mortality was observed.

Acute dermal toxicity

LD50 rat (dermal): > 5,000 mg/kg
No mortality was observed.

Assessment of acute toxicity

Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. Virtually nontoxic after a single ingestion. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: Fipronil

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): 0.36 mg/l 4 h (OECD Guideline 403)
Tested as dust aerosol.

Information on: Chlorfenapyr

Acute inhalation toxicity

Experimental/calculated data:
LC50 rat (by inhalation): > 0.085 - < 0.558 mg/l 4 h (OECD Guideline 403)
Tested as dust aerosol.

Symptoms

Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.
(Further) symptoms and / or effects are not known so far Symptoms of poisoning may only appear after several hours or several days.

Irritation

Assessment of irritating effects:
Not irritating to eyes and skin. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant

Serious eye damage/irritation rabbit: non-irritant

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:
Buehler test guinea pig: skin sensitizing

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.

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

Developmental toxicity

Assessment of teratogenicity:

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

Specific target organ toxicity (single exposure)

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.

Information on: Fipronil
Assessment of repeated dose toxicity:
Causes mortality and signs of neurotoxicity through prolonged or repeated exposure.

Information on: Chlorfenapyr
Assessment of repeated dose toxicity:
Repeated exposure may affect certain organs. Affects the central nervous system.

Aspiration hazard

not applicable

Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Very 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: Fipronil
Toxicity to fish:
LC50 (96 h) 0.0852 mg/l, Lepomis macrochirus

Information on: Chlorfenapyr
Toxicity to fish:
LC50 (96 h) 0.00744 mg/l, Oncorhynchus mykiss (Directive 84/449/EEC, C.1, Flow through.)

Information on: Fipronil
Aquatic invertebrates:
EC50 (48 h) 0.19 mg/l, Daphnia magna

EC50 (96 h) 0.00017 mg/l, Mysidopsis bahia

Information on: Chlorfenapyr
Aquatic invertebrates:
EC50 (96 h) 0.00203 mg/l, Mysidopsis bahia (Directive 84/449/EEC, C.2)

Information on: Fipronil
Aquatic plants:
EC50 (72 h) 0.103 mg/l (growth rate), Scenedesmus subspicatus

No observed effect concentration (14 d) > 0.16 mg/l, Lemna gibba

Information on: Chlorfenapyr
Aquatic plants:
EC50 (72 h) 0.132 mg/l, Pseudokirchneriella subcapitata (OECD Guideline 201)

No observed effect concentration (72 h) 0.020 mg/l, Pseudokirchneriella subcapitata (OECD Guideline 201)

Information on: Fipronil
Chronic toxicity to fish:
No observed effect concentration (35 d) 0.0029 mg/l, Cyprinodon variegatus

Information on: Chlorfenapyr
Chronic toxicity to fish:
No observed effect concentration (93 d) 0.003678 mg/l, Oncorhynchus mykiss
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Information on: Fipronil
Chronic toxicity to aquatic invertebrates:
No observed effect concentration (28 d), 0.000008 mg/l, Mysidopsis bahia

Information on: Chlorfenapyr
Chronic toxicity to aquatic invertebrates:
No observed effect concentration (28 d), 0.000172 mg/l, Mysidopsis bahia
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Mobility

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

Information on: Fipronil
Assessment transport between environmental compartments:
Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Information on: Chlorfenapyr
Assessment transport between environmental compartments:
Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

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: Fipronil

Information on: Chlorfenapyr
Assessment biodegradation and elimination (H2O):
Not readily biodegradable (by OECD criteria).

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: Fipronil
Bioaccumulation potential:
Bioconcentration factor: 321, Lepomis macrochirus
Accumulation in organisms is not to be expected.

Information on: Chlorfenapyr
Bioaccumulation potential:
Bioconcentration factor: 116, Cyprinus carpio
Accumulation in organisms is not to be expected.

Additional information

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

13. Disposal Considerations

Must be disposed of or incinerated in accordance with 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:
UN number or ID number: UN 3082

UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FIPRONIL, CHLORFENAPYR)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	None known

Further information
Hazchem Code:3Z
IERG Number:47

Sea transport
IMDG

UN number or ID number:	UN 3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FIPRONIL, CHLORFENAPYR)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes Marine pollutant: YES
Special precautions for user:	EmS: F-A; S-F

Air transport
IATA/ICAO

UN number or ID number:	UN 3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FIPRONIL, CHLORFENAPYR)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	None known

Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

Further information
Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 L or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2.10.2.7; IATA: A197; TDG: Special Provision 99(2); 49CFR: §171.4 (c) (2) and also the Special Provision 375 in Appendix B which is regulated in China "Regulations Concerning Road

Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements" (JT/T 617.3)

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP): Schedule 5

APVMA Product No: 94607

Registration status:

AICIS, AU

Contains non-registered, non-listed substance., Individual registration may be required., Please contact your BASF representative.

16. Other Information

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. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.