



**VELUM GR1**

Version 2 / ZA  
102000031086

1/8  
Revision Date: 03.05.2019  
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**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product identifier**

**Trade name** VELUM GR1  
**Product code (UVP)** 84441848

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

**Use** Nematicide

**1.3 Details of the supplier of the safety data sheet**

**Supplier** Bayer (Pty) Ltd.  
27 Wrench Road, P.O. Box 143  
1600 Isando  
South Africa  
**Telephone** +27 (011) 921 5911  
**Telefax** +27 (011) 921 5766  
**Responsible Department** QHSE - Nigel, South Africa  
+27 (011) 365 8675 (during business hours only)

**1.4 Emergency telephone no.**

**Emergency telephone no.** +27 (0861) 555 777 (Western Cape Poisons Helpline)  
**Global Incident Response Hotline (24h)** +1 (760) 476 3964 (Company 3E for Bayer AG, Crop Science Division)

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**SECTION 2: HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

**Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.**

Not classified, the classification criteria are not met.

**2.2 Label elements**

**Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.**

Hazard label for supply/use required.

**Precautionary statements**

P501 Dispose of contents/container in accordance with local regulation.

**2.3 Other hazards**

No other hazards known.

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**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.2 Mixtures**

**Chemical nature**

Granule (GR)

**Hazardous components**

**VELUM GR1**Version 2 / ZA  
102000031086

2/8

Revision Date: 03.05.2019  
Print Date: 03.05.2019

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		REGULATION (EC) No 1272/2008	
Fluopyram	658066-35-4 619-797-7	Aquatic Chronic 2, H411	1

**Further information**

For the full text of the H-Statements mentioned in this Section, see Section 16.

**SECTION 4: FIRST AID MEASURES****4.1 Description of first aid measures**

<b>General advice</b>	Move out of dangerous area. Remove contaminated clothing immediately and dispose of safely. Place and transport victim in stable position (lying sideways).
<b>Inhalation</b>	Move to fresh air. Keep patient warm and at rest. If symptoms persist, call a physician.
<b>Skin contact</b>	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Do NOT induce vomiting. Call a physician or poison control center immediately. Rinse mouth.

**4.2 Most important symptoms and effects, both acute and delayed****Symptoms** No symptoms known or expected.**4.3 Indication of any immediate medical attention and special treatment needed****Treatment** Treat symptomatically. Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate.**SECTION 5: FIREFIGHTING MEASURES****5.1 Extinguishing media**

<b>Suitable</b>	Water spray, Carbon dioxide (CO <sub>2</sub> ), Foam, Sand
<b>Unsuitable</b>	High volume water jet

**5.2 Special hazards arising from the substance or mixture** In the event of fire the following may be released: Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>)**5.3 Advice for firefighters****Special protective equipment for firefighters** In the event of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and protective suit.



**VELUM GR1**

Version 2 / ZA  
102000031086

3/8

Revision Date: 03.05.2019  
Print Date: 03.05.2019

**Further information**                      Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures**

**Precautions**                                      Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

**6.2 Environmental precautions**                                      Do not allow to get into surface water, drains and ground water.

**6.3 Methods and materials for containment and cleaning up**

**Methods for cleaning up**                                      Use mechanical handling equipment. Clean contaminated floors and objects thoroughly, observing environmental regulations. Collect and transfer the product into a properly labelled and tightly closed container.

**6.4 Reference to other sections**                                      Information regarding safe handling, see section 7.  
Information regarding personal protective equipment, see section 8.  
Information regarding waste disposal, see section 13.

**SECTION 7: HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

**Advice on safe handling**                                      Use only in area provided with appropriate exhaust ventilation.

**Advice on protection against fire and explosion**                                      Keep away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge. Dust may form explosive mixture in air.

**Hygiene measures**                                      Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

**7.2 Conditions for safe storage, including any incompatibilities**

**Requirements for storage areas and containers**                                      Store in a place accessible by authorized persons only. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Keep away from direct sunlight.

**Advice on common storage**                                      Keep away from food, drink and animal feedingstuffs.

**Suitable materials**                                      Aluminium composite film (min. 0,007 mm Aluminium)

**7.3 Specific end use(s)**                                      Refer to the label and/or leaflet.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Fluopyram	658066-35-4	0,34 mg/m3 (TWA)		OES BCS*

**VELUM GR1**Version 2 / ZA  
102000031086

4/8

Revision Date: 03.05.2019  
Print Date: 03.05.2019

\*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

**8.2 Exposure controls****Respiratory protection**

Respiratory protection is not required under anticipated circumstances of exposure.

Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

**Hand protection**

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed.

Material	Nitrile rubber
Rate of permeability	> 480 min
Glove thickness	> 0,4 mm
Protective index	Class 6
Directive	Protective gloves complying with EN 374.

**Eye protection**

Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

**Skin and body protection**Wear standard coveralls and Category 3 Type 6 suit.  
Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

Form	granular
Colour	white to beige
Odour	weak, characteristic
pH	6,0 - 8,5 (10 %)
Bulk density	1,4 - 1,7 g/ml (bulk density tapped)
Partition coefficient: n-octanol/water	Fluopyram: log Pow: 3,3

**9.2 Other information** Further safety related physical-chemical data are not known.**SECTION 10: STABILITY AND REACTIVITY****10.1 Reactivity****Thermal decomposition** Stable under normal conditions.**10.2 Chemical stability** Stable under recommended storage conditions.



**VELUM GR1**

Version 2 / ZA  
102000031086

5/8  
Revision Date: 03.05.2019  
Print Date: 03.05.2019

<b>10.3 Possibility of hazardous reactions</b>	No hazardous reactions when stored and handled according to prescribed instructions.
<b>10.4 Conditions to avoid</b>	Extremes of temperature and direct sunlight.
<b>10.5 Incompatible materials</b>	Store only in the original container.
<b>10.6 Hazardous decomposition products</b>	No decomposition products expected under normal conditions of use.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

<b>Acute oral toxicity</b>	ATE (Mix) (Rat) > 2.000 mg/kg Acute toxicity estimate
<b>Acute inhalation toxicity</b>	ATE (Mix) (Rat) > 5,0 mg/l Exposure time: 4 h Acute toxicity estimate
<b>Acute dermal toxicity</b>	ATE (Mix) (Rat) > 2.000 mg/kg Calculation method
<b>Skin corrosion/irritation</b>	No skin irritation The information is derived from the properties of the individual components.
<b>Serious eye damage/eye irritation</b>	No eye irritation The information is derived from the properties of the individual components.
<b>Respiratory or skin sensitisation</b>	Skin: Non-sensitizing. The information is derived from the properties of the individual components.

**Assessment STOT Specific target organ toxicity – single exposure**

Fluopyram: Based on available data, the classification criteria are not met.

**Assessment STOT Specific target organ toxicity – repeated exposure**

Fluopyram did not cause specific target organ toxicity in experimental animal studies.

**Assessment mutagenicity**

Fluopyram was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

**Assessment carcinogenicity**

Fluopyram caused at high dose levels an increased incidence of tumours in rats in the following organ(s):  
Liver.

Fluopyram caused at high dose levels an increased incidence of tumours in mice in the following organ(s):  
Thyroid.

The tumours seen with Fluopyram were caused through a non-genotoxic mechanism, which is not relevant at low doses. The mechanism that triggers these tumours is not relevant to humans.

**Assessment toxicity to reproduction**

Fluopyram caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Fluopyram is related to parental toxicity.

**Assessment developmental toxicity**

**VELUM GR1**Version 2 / ZA  
102000031086

6/8

Revision Date: 03.05.2019  
Print Date: 03.05.2019

Fluopyram caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Fluopyram are related to maternal toxicity.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Further information**

No further toxicological information is available.

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**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity****Toxicity to fish**

LC50 (Oncorhynchus mykiss (rainbow trout)) > 2 mg/l  
Exposure time: 96 h  
The value mentioned relates to the active ingredient fluopyram.  
No acute toxicity was observed at its limit of water solubility.

**Toxicity to aquatic invertebrates**

EC50 (Daphnia magna (Water flea)) > 20 mg/l  
Exposure time: 48 h  
The value mentioned relates to the active ingredient fluopyram.  
No acute toxicity was observed at its limit of water solubility.

**Toxicity to aquatic plants**

EC50 (Raphidocelis subcapitata (freshwater green alga)) 8,9 mg/l  
Growth rate; Exposure time: 72 h  
The value mentioned relates to the active ingredient fluopyram.

**12.2 Persistence and degradability****Biodegradability**

Fluopyram:  
Not rapidly biodegradable

**Koc**

Fluopyram: Koc: 279

**12.3 Bioaccumulative potential****Bioaccumulation**

Fluopyram: Bioconcentration factor (BCF) 18  
Does not bioaccumulate.

**12.4 Mobility in soil****Mobility in soil**

Fluopyram: Moderately mobile in soils

**12.5 Results of PBT and vPvB assessment****PBT and vPvB assessment**

Fluopyram: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

**12.6 Other adverse effects****Additional ecological information**

No other effects to be mentioned.

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**SECTION 13: DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**



**VELUM GR1**

Version 2 / ZA  
102000031086

7/8  
Revision Date: 03.05.2019  
Print Date: 03.05.2019

<b>Product</b>	In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.
<b>Contaminated packaging</b>	Triple rinse containers. Do not re-use empty containers. Not completely emptied packagings should be disposed of as hazardous waste.

**SECTION 14: TRANSPORT INFORMATION**

According to SANS 10231/IMDG/IATA not classified as dangerous goods.

14.1 – 14.5 Not applicable.

**14.6 Special precautions for user**

See sections 6 to 8 of this Safety Data Sheet.

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

No transport in bulk according to the IBC Code.

**SECTION 15: REGULATORY INFORMATION**

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

**Further information**

WHO-classification: III (Slightly hazardous)

**SECTION 16: OTHER INFORMATION**

**Text of the hazard statements mentioned in Section 3**

H411 Toxic to aquatic life with long lasting effects.

**Abbreviations and acronyms**

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
Conc.	Concentration
EC-No.	European community number
ECx	Effective concentration to x %
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %



**VELUM GR1**

Version 2 / ZA  
102000031086

8/8  
Revision Date: 03.05.2019  
Print Date: 03.05.2019

LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2015/830 amending Regulation (EU) No 1907/2006 and any subsequent amendments. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

**Reason for Revision:** Reviewed and updated for general editorial purposes. The following sections have been revised: Section 7: Handling and Storage. Section 8: Exposure Controls / Personal Protection. Section 13. Disposal considerations.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.