



GALMANO FS167

Version 1 / ZA
102000015128

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Revision Date: 12.05.2016
Print Date: 18.05.2016

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name GALMANO FS167
Product code (UVP) 79012705

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

Use Fungicide, Seed treatment

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 CropScience)

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.

Acute toxicity: Category 4
H302 Harmful if swallowed.

Specific target organ toxicity - repeated exposure: Category 1
H372 Causes damage to organs (Kidney, Liver) through prolonged or repeated exposure.

Acute aquatic toxicity: Category 1
H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1
H410 Very toxic to aquatic life with long lasting effects.

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.

Hazardous components which must be listed on the label:

- Fluquinconazole

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H302 Harmful if swallowed.
 H372 Causes damage to organs (Kidney, Liver) through prolonged or repeated exposure.
 H410 Very toxic to aquatic life with long lasting effects.
 EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P310 Immediately call a POISON CENTER/doctor/ physician.
 P501 Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixtures****Chemical nature**Flowable concentrate for seed treatment (FS)
Fluquinconazole 167g/l**Hazardous components**

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

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		Regulation (EC) No 1272/2008	
Fluquinconazole	136426-54-5	Acute Tox. 4, H312 Skin Irrit. 2, H315 Acute Tox. 3, H331 STOT RE 1, H372 Aquatic Acute 1, H400 Acute Tox. 3, H301 Aquatic Chronic 1, H410	15,61

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**

General advice Remove contaminated clothing immediately and dispose of safely.
Inhalation Move the victim to fresh air and keep at rest. Call a physician or poison control center immediately.



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Skin contact	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. Take off contaminated clothing and shoes immediately. If symptoms persist, call a physician.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Do NOT induce vomiting. Keep at rest. Call a physician or poison control center immediately.

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 Local treatment: Initial treatment: symptomatic. Systemic treatment: Monitor: respiratory, cardiac, kidney, liver and central nervous system. Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture In the event of fire the following may be released: Hydrogen fluoride, Hydrogen chloride (HCl), Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x)

5.3 Advice for firefighters

Special protective equipment for firefighters In the event of fire and/or explosion do not breathe fumes.

Further information Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions When dealing with a spillage do not eat, drink or smoke. Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment. Keep unauthorized people away.

6.2 Environmental precautions Contain contaminated water and fire fighting water. Do not allow to get into surface water, drains and ground water. If the product contaminates rivers and lakes or drains inform respective authorities.

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Methods for cleaning up Dike area to prevent runoff. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). 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 Avoid contact with skin, eyes and clothing. Use only in area provided with appropriate exhaust ventilation.

Advice on protection against fire and explosion No special precautions required.

Hygiene measures Avoid contact with skin, eyes and clothing. Contaminated work clothing should not be allowed out of the workplace. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Keep out of the reach of children. Store in original container. Keep away from direct sunlight. Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed.

Suitable materials HDPE (high density polyethylene)

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
Fluquinconazole	136426-54-5	0,1 mg/m ³ (TWA)		OES BCS*
1,2-Propanediol (Particulate.)	57-55-6	10 mg/m ³ (TWA)	1995	ZA REL
1,2-Propanediol (Total vapour and particulates.)	57-55-6	470 mg/m ³ /150 ppm (TWA)	1995	ZA REL

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

8.2 Exposure controls

Respiratory protection Respiratory protection is not required under anticipated circumstances of exposure.

Hand protection Wear CE Marked (or equivalent) nitrile rubber gloves (minimum

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thickness of 0,4 mm). Wash when contaminated and dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

Eye protection	Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).
Skin and body protection	Wear standard coveralls and Category 3 Type 3 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	suspension
Colour	red
pH	6,0 - 8,0 at 100 % (23 °C)
Flash point	Not relevant; aqueous solution
Density	ca. 1,07 g/cm ³ at 20 °C

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 normal conditions.

10.3 Possibility of hazardous reactions No hazardous reactions known.

10.4 Conditions to avoid Extremes of temperature and direct sunlight.

10.6 Hazardous decomposition products No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects**

Acute oral toxicity LD50 (Rat) > 300 - < 2.000 mg/kg
Test conducted with a similar formulation.

Acute inhalation toxicity No data available

Acute dermal toxicity LD50 (Rat) > 4.000 mg/kg
Test conducted with a similar formulation.

Skin irritation No skin irritation (Rabbit)
Test conducted with a similar formulation.

Eye irritation No eye irritation (Rabbit)

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Test conducted with a similar formulation.

SensitisationNon-sensitizing. (Guinea pig)
Test conducted with a similar formulation.**Assessment repeated dose toxicity**

Fluquinconazole caused specific target organ toxicity in experimental animal studies in the following organ(s): Liver, Kidney.

Assessment mutagenicity

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

Assessment carcinogenicity

Fluquinconazole caused at high dose levels an increased incidence of tumours in the following organ(s): Liver, Thyroid. The tumours seen with Fluquinconazole were caused through a non-genotoxic mechanism, which is not relevant at low doses. The mechanism that triggers tumours in rodents is not relevant for the low exposures encountered under normal use conditions.

Assessment toxicity to reproduction

Fluquinconazole caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. Fluquinconazole caused a reduced pup survival, a reduced litter size and a reduced pup weight. The reproduction toxicity seen with Fluquinconazole is related to parental toxicity.

Assessment developmental toxicity

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

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity****Toxicity to fish**LC50 (Oncorhynchus mykiss (rainbow trout)) 1,9 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient fluquinconazole.LC50 (Lepomis macrochirus (Bluegill sunfish)) 1,34 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient fluquinconazole.**Toxicity to aquatic invertebrates**EC50 (Daphnia magna (Water flea)) > 5 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient fluquinconazole.**Toxicity to aquatic plants**EC50 (Raphidocelis subcapitata (freshwater green alga)) 0,014 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient fluquinconazole.**12.2 Persistence and degradability****Biodegradability** Not applicable for this mixture.**12.3 Bioaccumulative potential****Bioaccumulation** Not applicable for this mixture.**12.4 Mobility in soil****Mobility in soil** Not applicable for this mixture.**12.5 Results of PBT and vPvB assessment**



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Not relevant as no chemical safety report is necessary.

12.6 Other adverse effects

Additional ecological information No other effects to be mentioned.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product 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.

SECTION 14: TRANSPORT INFORMATION

SANS 10231

14.1 UN number	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUQUINCONAZOLE)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES

IMDG

14.1 UN number	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUQUINCONAZOLE)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Marine pollutant	YES

IATA

14.1 UN number	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUQUINCONAZOLE)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES

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

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WHO-classification: II (Moderately hazardous)

SECTION 16: OTHER INFORMATION**Text of the hazard statements mentioned in Section 3**

H301	Toxic if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H331	Toxic if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very 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 (ATE)
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 %
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.

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