

SAFETY DATA SHEET



GALMANO

Version 1 / NZ
102000015128

1/10
Revision Date: 28.11.2017
Print Date: 28.11.2017

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

1.1 Product identifier

Trade name GALMANO
Product code (UVP) 79012705

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

Use Fungicide, Seed treatment
EPA-Nr. HSR100402

1.3 Details of the supplier of the safety data sheet

Supplier Bayer New Zealand Limited
3 Argus Place, Hillcrest
Auckland 0627
New Zealand
Telephone 0800 428 246
Telefax (09) 441 8645

1.4 Emergency telephone no.

Emergency Number 0800 734 607 (24hr)
Global Incident Response Hotline (24h) +1 (760) 476-3964 (Company 3E for Bayer AG, Crop Science Division)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classified as hazardous according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001

6.1D
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
6.3A
H315 Causes skin irritation.
6.4A
H320 Causes eye irritation.
6.5B
H317 May cause an allergic skin reaction.
6.8C
H362 May cause harm to breast-fed children.
6.9A

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H372 Causes damage to organs through prolonged or repeated exposure.

9.1A

H410 Very toxic to aquatic life with long lasting effects.

9.3C

H433 Harmful to terrestrial vertebrates.

2.2 Label elements

Labelling in accordance with Hazardous Substances Identification Regulations 2001

Hazard label for supply/use required.



Signal word: Danger

Hazard statements

H302 + H312 Harmful if swallowed, in contact with skin or if inhaled.
+ H332

H315 Causes skin irritation.

H320 Causes eye irritation.

H317 May cause an allergic skin reaction.

H362 May cause harm to breast-fed children.

H372 Causes damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

H433 Harmful to terrestrial vertebrates.

Precautionary statements

P102 Keep out of reach of children.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor/ physician.

P391 Collect spillage.

P321 Specific treatment (see supplemental first aid instructions on this label).

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

Name	CAS-No.	Conc. [%]
Fluquinconazole	136426-54-5	15.61
1,2-Benzisothiazol-3(2H)-one	2634-33-5	>= 0.0050 – < 0.050

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Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one	55965-84-9	$\geq 0.00015 - < 0.0015$
1,2-Propanediol	57-55-6	≥ 1.00

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice	Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
Inhalation	Move to fresh air. Keep patient warm and at rest. When symptoms persist or in all cases of doubt seek medical advice.
Skin contact	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.
Eye contact	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.
Ingestion	Rinse mouth. Do NOT induce vomiting. 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 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. There is no specific antidote.

Contact the National Poisons and Hazardous Chemicals Information center in Dunedin, PO Box 913, Dunedin. Phone 0800 POISON (0800 764 766).

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable	High volume water jet

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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), Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Carbon dioxide (CO ₂), 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. Wear self-contained breathing apparatus and protective suit.
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 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. Clean contaminated floors and objects thoroughly, observing environmental regulations.

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. 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. Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep away from direct sunlight. Protect from frost.

Suitable materials HDPE (high density polyethylene)

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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)	07 2011	NZ OEL
1,2-Propanediol (Vapor and particulates.)	57-55-6	474 mg/m ³ /150 ppm (TWA)	07 2011	NZ OEL

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

8.2 Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

Wear respirator with an organic vapours and gas filter mask (protection factor 10) conforming to EN140 type A or equivalent. 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 on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

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 4 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.

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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
Partition coefficient: n-octanol/water	Fluquinconazole: log Pow: 3.24 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 recommended storage conditions.

10.3 Possibility of hazardous reactions No hazardous reactions when stored and handled according to prescribed instructions.

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)
Test conducted with a similar formulation.

Sensitisation Non-sensitizing. (Guinea pig)
Test conducted with a similar formulation.

Assessment STOT Specific target organ toxicity – single exposure

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

Assessment STOT Specific target organ toxicity – repeated exposure

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.

Aspiration hazard

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

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 Fluquinconazole:
Not rapidly biodegradable

Koc Fluquinconazole: Koc: 870

12.3 Bioaccumulative potential

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Bioaccumulation Fluquinconazole: Bioconcentration factor (BCF) 87
Does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil Fluquinconazole: Slightly mobile in soils

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment Fluquinconazole: 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.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product Dispose of this product only by using according to the label, or at an approved landfill or other approved facility.

Contaminated packaging Triple rinse containers. Recycle if possible. If allowed under local authority, burn if circumstances, especially wind direction permit, otherwise crush and bury in an approved local authority facility. Do not use container for any other purpose.

SECTION 14: TRANSPORT INFORMATION

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

ADR/RID/ADN

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
Hazchem Code	3Z

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

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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

HSNO approval-Nr.	HSR100402
HSNO Controls	See www.epa.govt.nz
ACVM Reg.	P7795
ACVM Condition	See www.foodsafety.govt.nz

SECTION 16: OTHER INFORMATION

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 _x	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)
IC _x	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LC _x	Lethal concentration to x %
LD _x	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

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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 data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance of the product.

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