

MATERIAL SAFETY DATA SHEET

compliant with requirements of the Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning REACH (OJ of the EU L 396), with later amendments



GAMELAN 100 FS

Compiled: 30.07.2025

Revised: -

Version: 1.0/LV_EN

Section 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product identifier

GAMELAN 100 FS

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

A plant protection product – fungicide in the form of a flowable concentrate for seed treatment. To be used by professional users. Use only in accordance with label-instruction of use.

1.3. Details of the supplier of the Safety Data Sheet

Producer: INNVIGO Sp. z o. o.

address: Al. Jerozolimskie 178, 02-486 Warszawa

NIP: 557-16-98-060

telephone: +48 22 468 26 70

e-mail: biuro@innvigo.com

Person responsible for the Safety Data Sheet: RD@chemirol.com.pl

1.4. Emergency telephone number

Emergency telephone number: 112.

Toxicology and Sepsis Clinic Poisoning and Drug Information Center, Hipokrāta 2, Riga, Latvia, LV-1038, phone +371 67042473. The service is available 24 hours a day.

Section 2. HAZARDS IDENTIFICATION

The product is classified as dangerous in accordance with applicable regulations.

2.1. Classification of the mixture

According to Directive CLP:

Flam. Liq. 3, H226

Skin Sens. 1A, H317

Aquatic Chronic 2, H411

2.2. Label elements

According to Directive CLP:



WARNING

Risk phrases (H-phrases):

H226 – Flammable liquid and vapour.

H317 – May cause an allergic skin reaction.

H411 – Toxic to aquatic life with long-lasting effects.

Safety phrases (P-phrases):

P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 – Keep container closed.

P241 – Use explosion-proof electrical/ventilation/lighting equipment.

P242 – Use non-sparking tools.

P243 – Take precautions against static discharges

P261 – Avoid breathing fumes.

P280 – Wear protective gloves/protective clothing/eye protection/face protection

P302+P352 – IF ON SKIN: Wash with plenty of soap and water.

P333 + P313 – If skin irritation or rash occurs: Get medical advice/attention.

P362 – Take off contaminated clothing and wash before reuse.

P391 – Collect spilled liquid

P501 – Dispose of contents/container in accordance with applicable regulations.

EUH 401 – To avoid risks to human health and the environment, comply with the instructions for use.

2.3. Other hazards

Mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2. Mixture

Ingredients hazardous to human health or the environment:

Chemical name	Index No.	CAS No.	EC No.	REACH registration number	Content [%w/w]	CLP Classification
Protiokonazol (ISO): 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-3H-1,2,4-triazolo-3-tion	-	178928-70-6	605-841-2	Not applicable *	9 – 11	Aquatic Acute 1, H400 M = 10 Aquatic Chronic 1, H410 M = 1
2-methylisothiazol-3(2H)-one	613-326-00-9	2682-20-4	220-239-6	01-21207646 90-50	0.003 – 0.005	Acute Tox. 3, H301 Acute Tox. 3, H311 Skin Corr. 1B, H314 Skin Sens. 1A, H317 (SCL: C ≥ 0,0015 %) Eye Dam. 1, H318 Acute Tox. 2, H330 Aquatic Acute 1, H400 M = 10 Aquatic Chronic 1, H410 M = 1
1,2-benzisothiazol-3(2H)-one	613-088-00-6	2634-33-5	220-120-9	01-21207615 40-60	0.003 – 0.005	Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1A, H317 (SCL: C ≥ 0,036 %) Eye Dam. 1, H318 Acute Tox. 2, H330 Aquatic Acute 1, H400 M = 1 Aquatic Chronic 2, H411 M = 1 Inhalation ATE = 0,21 mg/L (dusts or mists) Oral ATE = 450 mg/kg bw

*The registration number is not available for this substance as the substance or its uses are exempted from registration under Regulation (EC) No. 1907/2006 [REACH], the annual tonnage does not require registration or registration is envisaged for a later registration deadline.

Symbol explanation and full phrasing of H-phrases is included in Section 16.

Section 4. FIRST AID MEASURES

4.1. Description of first aid measures

General recommendations:

Avoid contamination of skin, eyes and clothing. In case of exposure immediately remove all contaminated clothing. Take off contaminated clothing and wash before reuse. In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

Procedure in case of:

Section 4. FIRST AID MEASURES

- inhalation: move the victim to fresh air. If necessary administer oxygen or apply artificial respiration. In the case of a stronger poisoning seek medical advice.
 - skin contact: If skin irritation occurs: Get medical advice/attention.
 - eye contact: wash immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
 - ingestion: do not induce vomiting unless specifically advised by a doctor. Wash mouth with water. Do not administer anything orally if the victim is unconscious.
- In the case of getting into the mouth or swallowed the following measures should be considered: Gastric lavage with charcoal, if necessary - further treatment.

4.2. Most important symptoms and effects, both acute and delayed

No data

4.3. Indication of any immediate medical attention and special treatment needed

The decision on how to proceed made by a doctor after examination of the injured.

Antidote: none.

Treat symptomatically.

Section 5. FIREFIGHTING MEASURES

General recommendations:

Remove from the area all unauthorized personnel and persons not participating in elimination of the fire. Eliminate sources of ignition, do not smoke. If necessary call the Fire Service.

5.1. Extinguishing media

Appropriate media:

Foam, dry chemicals, carbon dioxide, sand or earth,; if necessary use water spray. Use fire extinguishing methods suitable to surrounding conditions.

Unsuitable media:

High-volume water jet.

5.2. Special hazards arising from the mixture

During fire dangerous gases may be evolved: carbon oxides (CO_x), nitrogen oxides (NO_x), hydrogen chloride gas. Exposure to products of combustion may be a health hazard. Do not breathe fumes, gases or vapor.

5.3. Advice for firefighters

Use full protective clothing and a self-contained breathing apparatus. Isolate the exposed area. Isolate the water used for elimination of fire, do not allow it to enter sewers. Containers exposed to fire with water spray.

Section 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective measures – protective clothing, protective gloves, face shield. Avoid contact with skin, eyes and clothing. Avoid contact with spilled or released material. Restrict access to the area of bystanders failure until completion of the appropriate cleaners.

6.2. Environmental precautions

Do not empty into drains. Do not allow the product to enter sewers, ditches or waterways. Use appropriate containment to avoid environmental contamination. In the case of environmental contamination notify the relevant services.

6.3. Methods and material for containment and cleaning up

Small spillage:

Collect immediately by vacuum and place in appropriate waste container.

Large spillage:

Avoid formation of dust. Isolate the spillage area. Collect with an electrically secured vacuum or wet sweep and place in appropriate waste container. For proper cleanup wash the spillage area with plenty of water.

6.4. Reference to other sections

Dispose of in accordance with recommendations listed in Section 13 of the Safety Data Sheet.

During cleanup use personal protective measures as indicated in Section 8.

Section 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Follow the Occupational Safety and Health rules and regulations on handling chemicals. Use personal protective measures listed in Section 8. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Store only in original containers, tightly closed in a dry, well-ventilated place at temperature not lower than 0 °C and not exceeding 30 °C. Store in a place inaccessible to unauthorized personnel. Keep away from children and animals. Do not store with food, drink or animal foodstuffs. Store away from heat and hot surfaces.

7.3. Specific end use(s)

Strictly follow the label-instruction of use of the plant protection product.

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Occupational Exposure Limits of mixture ingredients:

[REGULATION of the Minister of Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286), as amended]

no recommendations

Occupational Exposure Limits of mixture ingredients recommended by the manufacturer:

no recommendations

8.2. Exposure controls

Personal protective measures

The need for and selection of appropriate security measures should take into account the type of threat posed by the product, workplace conditions and the treatment of the product. Wear protective reputable manufacturers.

- Eye / face protection: Tight-fitting goggles and face shield (type goggles, e.g. EN 166)
- Skin protection: protective gloves recommended for handling chemicals (EN 374 e.g. nitrile rubber (0.4 mm), chloroprene rubber (0, 5 mm), butyl rubber (0.7 mm). Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, gas-tight and resistant to chemical-protection suit (according to EN 14605)
- Respiratory protection: avoid breathing vapor of the product or the prepared spray mixture; in case of insufficient ventilation wear breathing masks with appropriate filters or a self-contained breathing apparatus ((filter with medium efficiency for solid and liquid particles e.g. EN 143 or 149, Type P2 I FFP2).
- Thermal hazards: not present

Wash hands before every break and after work.

Work only in well-ventilated rooms.

Avoid contact with skin and eyes.

Environmental exposure controls

Do not empty into drains. Use containers to prevent the uncontrolled release into the environment of concentrate.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance:	Homogenous intensive red liquid
Odor:	Characteristic
Odor threshold:	not determined
pH of 1% aqueous solution:	6.94 – 7.53
Melting/Freezing point:	not determined
Initial boiling point and boiling range:	not determined
Flash point:	does not have
Evaporation rate:	not determined
Flammability:	not determined
Upper/lower flammability or explosive limits:	not determined
Vapor pressure:	not determined

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor density:	not determined	
Relative density:	1.088	
Solubility:	not determined	
Partition coefficient: n-octanol/water:	not determined	
Auto-ignition temperature:	480°C	
Decomposition temperature:	not determined	
Viscosity:	shear rate at 20°C:	at 40°C:
	5.0 s ⁻¹ 798 mPa·s	668 mPa·s,
	10.0 s ⁻¹ 473 mPa·s	395 mPa·s
	25.0 s ⁻¹ 245 mPa·s	204 mPa·s
	50.0 s ⁻¹ 153 mPa·s	125 mPa·s
Explosive properties:	No explosive properties	
Oxidizing properties:	No oxidizing properties	
Particle characteristics	No data	

9.2. Other information

Surface tension: 42.39 mN/m (0.2%)
 28.46 mN/m (12.5 %)
 27.83 mN/m (33 %)

Section 10. STABILITY AND REACTIVITY

10.1. Reactivity

No reactivity under normal handling and storage conditions.

10.2. Chemical stability

Stable under normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions, including hazardous polymerization, do not take place.

10.4. Conditions to avoid

Avoid temperatures beyond the recommended storage range. Protect from direct sunlight.

10.5. Incompatible materials

To be used only in accordance with the label-instruction of use. Use in mixtures with products other than recommended is prohibited.

10.6. Hazardous decomposition products

Not determined. Hazardous products of thermal decomposition are described in Section 5.

Section 11. TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Data concerning the mixture:

Acute toxicity:

- oral: LD₅₀ > 2000 mg/kg bw
- dermal: LD₅₀ > 2000 mg/kg bw
- inhalation: LC₅₀ > 20 mg/L air

Irritation:

- eyes: No irritant to eye
- skin: No irritant to skin

Sensitization:

- skin: Sensitising (Skin Sens. 1A, H317)

Caustic effect: the product contain ingredients with caustic.

Sensitization: the product contain ingredients identified sensitizing.

Carcinogenicity: the product does not contain ingredients identified carcinogenic.

Mutagenicity: the product does not contain ingredients identified mutagenic.

Reproductive toxicity: the product does not contain ingredients identified harmful effect on reproduction.

Operation target organ toxicity - single exposure:

It is unlikely that the product under normal conditions of use and handling of him, causing harmful effects.

Operation target organ toxicity - repeated exposure:

It is unlikely that the product under normal conditions of use and handling of him, causing harmful effects.

Information on likely routes of exposure - WARNING! The product is not fully explored!

Skin contact: may cause irritation, skin sensitization

Skin absorption: may be harmful if absorbed through the skin

Eye contact: may cause irritation of the eyes

Inhalation: may be irritating to mucous membranes and upper respiratory tract

Ingestion: may be harmful if swallowed

11.2. Information on other hazards**11.2.1. Endocrine disrupting properties**

Mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

11.2.2. Other information

No additional information.

Section 12. ECOLOGICAL INFORMATION

12.1. ToxicityData concerning the mixture:

Toxicity for water organisms:

- | | |
|---|--------------------------------------|
| - fish (Rainbow trout) : | LC ₅₀ /96h not determined |
| - daphnia (<i>Daphnia magna</i> Straus): | EC ₅₀ /48 h = 19.76 mg/L |
| | LOEC/48 h = 25 mg/L |
| | NOEC/48 h = 12.5 mg/L |
| | ErC ₅₀ /72 h = 28.37 mg/L |
| | EyC ₅₀ /72 h = 10.69 mg/L |

- algae (*Raphidocelis subcapitata*.):

Toxicity for honeybees (*Apis mellifera* L.):

- | | |
|------------|---|
| - oral: | LD ₅₀ /24, 48h > 200 µg/honeybee |
| - contact: | LD ₅₀ /24, 48h > 200 µg/honeybee |

12.2. Persistence and degradability

Prothioconazole: very low to low persistent

12.3. Bioaccumulative potential

Prothioconazole: BCF = 19.7

12.4. Mobility in soil

Prothioconazole: low mobile (Koc = 1765 mL/g)

12.5. Results of PBT and vPvB assessment

Mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6. Endocrine disrupting properties

Mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7. Other adverse effects

Information pointing to other adverse effects of use of the mixture is not available.

Section 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

[DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain directives
DIRECTIVE 94/62/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 December 1994 on packaging and packaging waste, as amended]

Section 13. DISPOSAL CONSIDERATIONS

Disposal of product waste:

Do not empty into drains. Do not contaminate surface waters (ponds, water ways, ditches). Dispose of as hazardous material.

European Waste Code: 02 01 08 Agrochemical waste containing dangerous substances, including plant protection products of I and II toxicity class (very toxic and toxic).

Disposal of containers:

Triple rinse empty product containers and place the rinsate in the spray tank. Do not re-use empty containers for any purpose, including recycling. Return empty product containers to the product supplier. Dispose of as hazardous material.

Section 14. TRANSPORT INFORMATION

Land transport ADR/RID:

14.1. UN number or ID number: UN 3082

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS LIQUID, N.O.S. (PROTIOCONAZOLE)

14.3. Transport hazard class(es): 9/M6

14.4. Packaging group: III

14.5. Environmental hazards: yes

14.6. Special precautions for user: special provisions 274, 335, 375, 601,

14.7. Maritime transport in bulk according to IMO instruments: Not applicable.

Section 15. REGULATORY INFORMATION

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

Legislation:

- REGULATION (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing the European Chemicals Agency and amending Directive 1999/45 / EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94, as well as Council Directive 76/769 / EEC and Commission Directives 91/155 / EEC, 93/67 / EEC, 93/105 / WE and 2000/21 / WE (Journal of Laws UE L 396), as amended.
- REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548 / EEC and 1999/45 / EC, and amending Regulation (EC) No. 1907/2006 (Journal of Laws UE L 353), as amended.
- REGULATION (EC) NO 1107/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 October 2009 on the placing of plant protection products on the market and repealing Council Directives 79/117 / EEC and 91/414 / EEC.
- COMMISSION REGULATION (EC) No 790/2009 of 10 August 2009 adapting to scientific and technical progress Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures (Official Journal of the European Union series L No 235 of 5 September 2009).
- COMMISSION REGULATION (EU) No 618/2012 of 10 July 2012 adapting to scientific and technical progress Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labeling and packaging of substances and mixtures.
- COMMISSION REGULATION (EU) No 547/2011 of 8 June 2011 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards labeling requirements for plant protection products.
- COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).
- DIRECTIVE 1999/45 / EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 May 1999 on the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labeling of dangerous preparations (Journal of Laws EC L 200), with later changes.
- European AGREEMENT on the International Carriage of Dangerous Goods by Road (ADR) made in Geneva on September 30, 1957.
- ACT of August 19, 2011 on the transport of dangerous goods (Journal of Laws 2011, No. 227, item 1367), as amended in Journal Of Laws of 2011 No. 244, item 1454).
- ACT of February 25, 2011 on chemical substances and mixtures (Journal of Laws 2011 No. 63, item 322), as amended.
- ACT of December 14, 2012 on waste (Journal of Laws of 2013, item 21), as amended
- Act of June 13, 2013 on the management of packaging and packaging waste (Journal of Laws of 2013, item 888), as amended.
- REGULATION of the Minister of Climate of 2 January 2020 on the waste catalog (Journal of Laws 2020, item 10).
- REGULATION of the Minister of Labor and Social Policy of June 12, 2018 on the maximum allowable concentrations and intensities of factors harmful to health in the work environment (Journal of Laws 2018, item 1286), as amended.
- REGULATION of the Minister of Economy of December 21, 2005 on the essential requirements for personal protective equipment (Journal of Laws of 2005, No. 259, item 2173).

Section 15. REGULATORY INFORMATION

- REGULATION of the Minister of Labor and Social Policy of September 26, 1997 on general provisions on health and safety at work (Journal of Laws 1997 No. 129, item 844) as amended.
- REGULATION of the Minister of Family and Social Policy of November 4, 2021 amending the regulation on general provisions on health and safety at work

15.2. Chemical safety assessment

It is not required.

Section 16. OTHER INFORMATION

Changes introduced at revision of the Safety Data Sheet:

-

Sources of data for preparation of the Safety Data Sheet:

This document is prepared according to results of manufacturer's own studies, as well as based on information supplied by manufacturers of ingredients of the formulation and data on ingredients of the formulation available at EU level.

Symbols and H-phrases used in Section 3 and not included in Section 2:

H301 – Toxic if swallowed.
H302 – Harmful if swallowed.
H311 – Toxic in contact with skin.
H314 – Causes severe skin burns and eye damage.
H315 – Causes skin irritation.
H318 – Causes serious eye damage.
H330 – Fatal if inhaled.
H400 – Very toxic to aquatic life.
H410 – Very toxic to aquatic life with long lasting effects.

Other abbreviations and acronyms:

Aquatic Chronic – chronic risk to aquatic environment
Acute Tox. – acute toxicity
Aquatic Acute – acute risk to aquatic environment
Eye Irrit. – irritating effect to eyes
Skin Irrit. – irritating to skin
Eye dam. – causes serious eye damage
Asp.Tox. – Aspiration toxicity
Skin Sens. – Skin sensitisation
STOT SE. – specific target organ toxicity – single exposure

DT₅₀ - period required for 50 percent disappearance (define method of estimation)
ER₅₀ - emergence rate/effective rate, median
ErC₅₀ - effective concentration (growth rate)
EC₅₀ - effective concentration
CAS - Chemical Abstract Service
BCF - bioconcentration factor
AOEL - acceptable operator exposure level
a.s. - active substance
bw - body weight
LC₅₀ - lethal concentration, median

Data included in this Safety Data Sheet is based on current knowledge and applies to the product in its formulation of use. This information is intended exclusively as guidance on safe handling, transport, use, storage and waste disposal and is not to be identified with a warranty or a quality certificate. The user is responsible for consequences resulting from inadequate use of information presented in this Safety Data Sheet or from inappropriate use of this product.