according to the Globally Harmonized System



## **VERIMARK®**

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### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : VERIMARK®

Manufacturer or supplier's details

Company : FMC India Private Limited

Address : TCG Financial Centre, 2nd Floor, C-53,

Bandra Kurla Complex,

Bandra (E), Mumbai, Maharashtra-400098

India

E-mail address : SDS-Info@fmc.com

Emergency telephone : 022 6704 5504/5404

000-800-100-7141 (CHEMTREC)

Medical Emergency Number : 022 6704 5504/5404

Recommended use of the chemical and restrictions on use

Recommended use : Insecticide

Restrictions on use : Use as recommended by the label.

### 2. HAZARDS IDENTIFICATION

## Manufacture, Storage and Import of Hazardous Chemicals Rules 1989

### Classification

Not classified as hazardous according to criteria laid down in Part I of Schedule-1.

**GHS Classification** 

Short-term (acute) aquatic

: Category 1

hazard

Long-term (chronic) aquatic

Category 1

hazard

**GHS** label elements

Hazard pictograms

¥\_>

Signal Word : WARNING

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Hazard Statements : H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements : Prevention:

P273 Avoid release to the environment.

Response:

P391 Collect spillage.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

#### Other hazards which do not result in classification

None known.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Components

Chemical name	CAS-No.	Concentration (%
		w/w)
Cyantraniliprole	736994-63-1	>= 10 - < 20
1,2-benzisothiazol-3(2H)-one	2634-33-5	>= 0.0025 - < 0.025

#### 4. FIRST AID MEASURES

General advice : Move out of dangerous area.

Show this material safety data sheet to the doctor in attend-

ance.

Do not leave the victim unattended.

If inhaled : Remove to fresh air.

If unconscious, place in recovery position and seek medical

advice.

If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambu-

lance.

In case of skin contact : If on clothes, remove clothes.

If on skin, rinse well with water.

Wash off with soap and plenty of water.

Get medical attention immediately if irritation develops and

persists.

In case of eye contact : Flush eyes with water as a precaution.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

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If eye irritation persists, consult a specialist.

If swallowed : Do not induce vomiting without medical advice.

Keep respiratory tract clear.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

Most important symptoms and effects, both acute and

delayed

May be harmful if inhaled.

Notes to physician : Treat symptomatically.

Immediate medical attention is required in case of ingestion.

#### 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Dry chemical, CO2, water spray or regular foam.

Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment.

Unsuitable extinguishing

media

High volume water jet

Do not spread spilled material with high-pressure water

streams.

Specific hazards during fire

fighting

Do not allow run-off from fire fighting to enter drains or water

courses.

Hazardous combustion prod- :

ucts

Fire may produce irritating, corrosive and/or toxic gases.

Nitrogen oxides (NOx) Chlorine compounds Hydrogen cyanide Carbon oxides Bromine compounds

Specific extinguishing meth-

ods

Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

Special protective equipment :

for fire-fighters

Firefighters should wear protective clothing and self-contained

breathing apparatus.

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas.

Do not touch or walk through the spilled material.

If it can be safely done, stop the leak. Use personal protective equipment.

Never return spills in original containers for re-use.

Mark the contaminated area with signs and prevent access to

unauthorized personnel.

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Only qualified personnel equipped with suitable protective

equipment may intervene.

Environmental precautions : Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel,

acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

#### 7. HANDLING AND STORAGE

Advice on protection against

fire and explosion

Normal measures for preventive fire protection.

Advice on safe handling : Avoid formation of aerosol.

For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the ap-

plication area.

Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national

regulations.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated

place.

Containers which are opened must be carefully resealed and

kept upright to prevent leakage.

Electrical installations / working materials must comply with

the technological safety standards.

Further information on stor-

age conditions

The product is stable under normal conditions of warehouse

storage.

Store in closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. The room should only be used for storage of chemicals. Food, drink, feed and seed should not

be present. A hand wash station should be available.

Further information on stor-

age stability

No decomposition if stored and applied as directed.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

### Personal protective equipment

Respiratory protection : In case of mist, spray or aerosol exposure wear suitable per-

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sonal respiratory protection and protective suit.

Hand protection

Material : Wear chemical resistant gloves, such as barrier laminate,

butyl rubber or nitrile rubber.

Remarks : The suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water

Always wear eye protection when the potential for inadvertent

eye contact with the product cannot be excluded.

Skin and body protection : Impervious clothing

Choose body protection according to the amount and concen-

tration of the dangerous substance at the work place.

Protective measures : Plan first aid action before beginning work with this product.

Always have on hand a first-aid kit, together with proper in-

structions.

Wear suitable protective equipment. When using do not eat, drink or smoke.

In the context of professional plant protection use as recommended, the end user must refer to the label and the instruc-

tions for use.

Hygiene measures : Avoid contact with skin, eyes and clothing.

When using do not eat or drink. When using do not smoke.

Wash hands before breaks and at the end of workday.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid

Color : off-white

Odor : odorless

Odor Threshold : not determined

pH : 6-8

Concentration: 10 g/l 1 %

(as a dispersion)

Melting point/freezing point : not determined

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Flash point : > 98 °C

Flammability (liquids) : Not expected to be ignitable

Upper explosion limit / Upper

flammability limit

Not available for this mixture.

Lower explosion limit / Lower

flammability limit

Not available for this mixture.

Vapor pressure : Not available for this mixture.

Relative vapor density : not determined

Relative density : 1.072 (20 °C)

Solubility(ies)

Water solubility : No data available

Solubility in other solvents : 6.54 g/l (20 °C)

Solvent: Acetone

1.96 g/l (20 °C)

Solvent: ethyl acetate

4.73 g/l (20 °C) Solvent: Methanol

5.05 g/l (20 °C)

Solvent: dichloromethane

0.29 g/l (20 °C) Solvent: xylene

0.067 mg/l (20 °C) Solvent: hexane

0.79 g/l (20 °C) Solvent: n-Octanol

2.45 g/l (20 °C) Solvent: Acetonitrile

Viscosity

Viscosity, dynamic : 474.3 mPa.s

50 rpm

Explosive properties : Not explosive

Oxidizing properties : The product is not oxidizing.

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#### 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous reac-

tions

No decomposition if stored and applied as directed.

Conditions to avoid : Heat, flames and sparks.

Protect from frost, heat and sunlight.

Heating of the product will produce harmful and irritant va-

pours.

Incompatible materials : Avoid strong acids, bases, and oxidizers.

Hazardous decomposition

products

Stable under recommended storage conditions.

#### 11. TOXICOLOGICAL INFORMATION

#### **Acute toxicity**

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

#### **Product:**

Acute oral toxicity : LD50(Rat): > 5,000 mg/kg

Method: OECD Test Guideline 425

GLP: yes

Remarks: (Data on the product itself)
Information source: Internal study report

Acute inhalation toxicity : LC50(Rat): > 3.7 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50(Rat): > 5,000 mg/kg

Method: OECD Test Guideline 402

GLP: ves

Remarks: (Data on the product itself)
Information source: Internal study report

#### **Components:**

Cyantraniliprole:

Acute oral toxicity : LD50 (Mouse, female): > 5,000 mg/kg

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Method: OECD Test Guideline 425

GLP: yes

Assessment: The substance or mixture has no acute oral tox-

icity

Remarks: no mortality

LD50 (Rat, female): > 5,000 mg/kg Method: OECD Test Guideline 425

GLP: yes

Assessment: The substance or mixture has no acute oral tox-

icity

Remarks: no mortality

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.2 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

GLP: ves

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: no mortality

Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Method: OECD Test Guideline 402

GLP: yes

Assessment: The substance or mixture has no acute dermal

toxicity

Remarks: no mortality

1,2-benzisothiazol-3(2H)-one:

Acute oral toxicity : LD50 (Rat, male and female): 490 mg/kg

Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

Method: OECD Test Guideline 402

Assessment: The substance or mixture has no acute dermal

toxicity

Skin corrosion/irritation

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

**Product:** 

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

GLP : yes

Remarks : (Data on the product itself)

Information source: Internal study report

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#### **Components:**

### Cyantraniliprole:

Species : Rabbit

Assessment : No skin irritation

Method : OECD Test Guideline 404

Result : No skin irritation

GLP : yes

#### 1,2-benzisothiazol-3(2H)-one:

Species : Rabbit Exposure time : 72 h

Method : OECD Test Guideline 404

Result : No skin irritation

### Serious eye damage/eye irritation

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

#### **Product:**

Species : Rabbit

Method : OECD Test Guideline 405

Result : No eye irritation

GLP : yes

Remarks : (Data on the product itself)

Information source: Internal study report

### **Components:**

## **Cyantraniliprole:**

Species : Rabbit

Assessment : Not classified as irritant
Method : OECD Test Guideline 405

Result : slight irritation

GLP : yes

### 1,2-benzisothiazol-3(2H)-one:

Species : Bovine cornea

Method : OECD Test Guideline 437

Result : No eye irritation

Species : Rabbit

Method : EPA OPP 81-4

Result : Irreversible effects on the eye

#### Respiratory or skin sensitization

#### Skin sensitization

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

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#### Respiratory sensitization

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

**Product:** 

Test Type : Local lymph node test

Species : Mouse

Method : OECD Test Guideline 429

Result : Animal test did not cause sensitization by skin contact.

GLP : yes

Remarks : (Data on the product itself)

Information source: Internal study report

Components:

Cyantraniliprole:

Test Type : Local lymph node test

Routes of exposure : Dermal Species : Mouse

Method : OECD Test Guideline 429

Result : Does not cause skin sensitization.

GLP : yes

Test Type : Maximization Test

Routes of exposure : Dermal Species : Guinea pig

Method : OECD Test Guideline 406

Result : Does not cause skin sensitization.

GLP : yes

Test Type : Buehler Test Routes of exposure : Dermal Species : Guinea pig

Method : OECD Test Guideline 406

Result : Does not cause skin sensitization.

GLP : yes

Test Type : Magnussen-Kligman test

Routes of exposure : Dermal Species : Guinea pig

Method : OECD Test Guideline 406
Result : Causes skin sensitization.

GLP : yes

Remarks : see user defined free text

1,2-benzisothiazol-3(2H)-one:

Test Type : Maximization Test

Species : Guinea pig

Method : OECD Test Guideline 406

Result : May cause sensitization by skin contact.

Species : Guinea pig Method : FIFRA 81.06

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Result : May cause sensitization by skin contact.

#### Germ cell mutagenicity

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

**Product:** 

Genotoxicity in vitro : Remarks: The product contains no ingredients known to be

mutagenic.

**Components:** 

Cyantraniliprole:

Genotoxicity in vitro : Test Type: reverse mutation assay

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: reverse mutation assay Test system: Escherichia coli

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Human lymphocytes

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test

Species: Mouse Application Route: Oral

Method: OECD Test Guideline 474

Result: negative

GLP: yes

Germ cell mutagenicity -

Assessment

Tests on bacterial or mammalian cell cultures did not show

mutagenic effects.

1,2-benzisothiazol-3(2H)-one:

Genotoxicity in vitro : Test Type: gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

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Result: negative

Test Type: Ames test

Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro

Method: OECD Test Guideline 473

Result: positive

Genotoxicity in vivo : Test Type: unscheduled DNA synthesis assay

Species: Rat (male) Cell type: Liver cells

Application Route: Ingestion

Exposure time: 4 h

Method: OECD Test Guideline 486

Result: negative

Test Type: Micronucleus test

Species: Mouse Application Route: Oral

Method: OECD Test Guideline 474

Result: negative

Germ cell mutagenicity -

Assessment

Weight of evidence does not support classification as a germ

cell mutagen.

#### Carcinogenicity

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

**Product:** 

Remarks : The product contains no ingredients known to be carcinogen-

ic.

### **Components:**

#### Cyantraniliprole:

Species : Rat, male and female

Application Route : Ingestion Exposure time : 2 Years

NOAEL : 200 - 2,000 ppm

Method : OECD Test Guideline 453

Result : negative

Species : Mouse, male and female

Application Route : Ingestion Exposure time : 18 month(s) NOAEL : 7,000 ppm

Method : OECD Test Guideline 451

Result : negative

Carcinogenicity - Assess- : Weight of evidence does not support classification as a car-

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ment cinogen

#### Reproductive toxicity

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

**Product:** 

Effects on fertility : Remarks: The product contains no ingredients found to have

adverse effects on reproduction.

**Components:** 

Cyantraniliprole:

Effects on fetal development : Test Type: Pre-natal

Species: Rat

Application Route: Oral

General Toxicity Maternal: NOAEL: 1,000 mg/kg bw/day Embryo-fetal toxicity.: NOAEL: 1,000 mg/kg bw/day

Method: OECD Test Guideline 414

Result: negative

Test Type: Pre-natal Species: Rabbit Application Route: Oral

General Toxicity Maternal: NOAEL: 25 mg/kg bw/day Embryo-fetal toxicity.: NOAEL: 100 mg/kg bw/day

Symptoms: Maternal effects. Method: OECD Test Guideline 414

Result: negative

Reproductive toxicity - As-

sessment

Weight of evidence does not support classification for repro-

ductive toxicity

1,2-benzisothiazol-3(2H)-one:

Effects on fertility : Species: Rat, male

Application Route: Ingestion

General Toxicity Parent: NOAEL: 18.5 mg/kg body weight General Toxicity F1: NOAEL: 48 mg/kg body weight

Fertility: NOAEL: 112 mg/kg bw/day

Symptoms: No effects on reproduction parameters.

Method: OPPTS 870.3800

Result: negative

Reproductive toxicity - As-

sessment

Weight of evidence does not support classification for repro-

ductive toxicity

STOT-single exposure

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

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#### **Components:**

Cyantraniliprole:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, single exposure.

STOT-repeated exposure

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

**Components:** 

Cyantraniliprole:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

1,2-benzisothiazol-3(2H)-one:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

Repeated dose toxicity

**Components:** 

Cyantraniliprole:

Species : Rat

NOAEL : > 1,000 mg/kg

Application Route : Oral Exposure time : 28 Days

Method : OECD Test Guideline 407 Symptoms : increased liver weight

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

Species : Rat, male and female NOAEL : 6.9 - 168 mg/kg bw/day

Application Route : Ingestion Exposure time : 90 Days

Method : OPPTS 870.3100

Remarks : Effects are of limited toxicological significance.

Species : Mouse, male and female NOAEL : 1091.8 mg/kg bw/day

Application Route : Ingestion Exposure time : 90 Days

Method : OPPTS 870.3100

Remarks : Effects are of limited toxicological significance.

Species : Dog, male and female NOAEL : 3.08 - 3.48 mg/kg bw/day

Application Route : Ingestion Exposure time : 90 Days

Method : OPPTS 870.3150

Remarks : Effects are of limited toxicological significance.

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Species : Rat, male and female NOAEL : 8.3 - 106.6 mg/kg bw/day

Application Route : Ingestion Exposure time : 2 yr

Method : OPPTS 870.4300

Remarks : Effects are of limited toxicological significance.

Species : Mouse, male and female NOAEL : 768.8 - 903.8 mg/kg bw/day

Application Route : Ingestion
Exposure time : 18 Months
Method : OPPTS 870.4200

Remarks : Effects are of limited toxicological significance.

Species : Dog, male and female NOAEL : 5.67 - 6 mg/kg bw/day

Application Route : Ingestion Exposure time : 1 yr

Method : OPPTS 870.4100

Remarks : Effects are of limited toxicological significance.

Species : Rat, male and female

NOAEL : 1000 mg/kg Application Route : Dermal Exposure time : 28 Days

Method : OECD Test Guideline 410

GLP : yes Symptoms : Irritation

Remarks : Effects are of limited toxicological significance.

## 1,2-benzisothiazol-3(2H)-one:

Species : Rat, male and female

NOAEL : 15 mg/kg
Application Route : Ingestion
Exposure time : 28 d

Method : OECD Test Guideline 407

Symptoms : Irritation

Species : Rat, male and female

NOAEL : 69 mg/kg Application Route : Ingestion Exposure time : 90 d

Symptoms : Irritation, Reduced body weight

#### **Aspiration toxicity**

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

#### **Components:**

#### **Cyantraniliprole:**

The substance does not have properties associated with aspiration hazard potential.

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## **Neurological effects**

### **Components:**

#### Cyantraniliprole:

No neurotoxicity observed in animal studies.

#### **Further information**

**Product:** 

Remarks : No data available

## 12. ECOLOGICAL INFORMATION

#### **Ecotoxicity**

**Product:** 

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): > 99 mg/l

Exposure time: 96 h Test Type: static test

Method: OECD Test Guideline 203

GLP: yes

Remarks: (Data on the product itself)
Information source: Internal study report

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.0421 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202

GLP: yes

Remarks: (Data on the product itself)
Information source: Internal study report

Toxicity to algae/aquatic

plants

ErC50 (Pseudokirchneriella subcapitata (green algae)): > 66.3

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

GLP: yes

Remarks: (Data on the product itself)
Information source: Internal study report

Toxicity to daphnia and other : aquatic invertebrates (Chron-

aquatic invertebrates

ic toxicity)

NOEC: 0.00656 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Toxicity to soil dwelling or-

ganisms

LC50: > 1,000 mg/kg Exposure time: 14 d

Species: Eisenia fetida (earthworms) Method: OECD Test Guideline 207

GLP: yes

Remarks: (Data on the product itself)

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Information source: Internal study report

Toxicity to terrestrial organ-

isms

LD50: 0.00218 mg/kg Exposure time: 96 h

End point: Acute oral toxicity Species: Apis mellifera (bees) Method: OECD Test Guideline 213

GLP: yes

Remarks: (Data on the product itself)
Information source: Internal study report

LD50: 0.00355 mg/kg Exposure time: 96 h

End point: Acute contact toxicity Species: Apis mellifera (bees) Method: OECD Test Guideline 213

GLP: ves

Remarks: (Data on the product itself)
Information source: Internal study report

### Components:

Cyantraniliprole:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 12.6 mg/l

Exposure time: 96 h

Method: US EPA Test Guideline OPP 72-1

GLP: yes

LC50 (Ictalurus punctatus (channel catfish)): > 10 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.0204 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

ErC50 (Pseudokirchneriella subcapitata (green algae)): > 13

mg/l

Exposure time: 72 h

ErC50 (Lemna gibba (duckweed)): 0.278 mg/l

Exposure time: 7 d

EyC50 (Lemna gibba (duckweed)): 0.060 mg/l

Exposure time: 7 d

M-Factor (Acute aquatic tox-

icity)

10

Toxicity to fish (Chronic tox-

icity)

NOEC: 2.9 mg/l

Exposure time: 28 d

Species: Cyprinodon variegatus (sheepshead minnow)

NOEC: 0.11 mg/l Exposure time: 21 d

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Species: Oncorhynchus mykiss (rainbow trout)

NOEC: 1.01 mg/l Exposure time: 90 d

Species: Oncorhynchus mykiss (rainbow trout)

Test Type: Early Life-Stage

Method: US EPA Test Guideline OPP 72-4

GLP: yes

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0.00656 mg/l End point: Growth Exposure time: 21 d

Species: Daphnia magna (Water flea)

Test Type: Static-Renewal

Method: US EPA Test Guideline OPPTS 850.1300

GLP: yes

LOEC: 0.00969 mg/l End point: Growth Exposure time: 21 d

Species: Daphnia magna (Water flea)

Test Type: Static-Renewal

Method: US EPA Test Guideline OPPTS 850.1300

GLP: yes

NOEC: 0.00447 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

NOEC: 0.72 mg/l End point: reproduction Exposure time: 35 d

Species: Americamysis bahia (mysid shrimp)

Test Type: flow-through test

Method: US EPA Test Guideline OPP 72-4

GLP: yes

M-Factor (Chronic aquatic

toxicity)

: 10

Toxicity to soil dwelling or-

ganisms

NOEC: 1,000 mg/kg Exposure time: 14 d

Species: Eisenia fetida (earthworms) Method: OECD Test Guideline 222

GLP: yes

Method: OECD Test Guideline 216

Remarks: No significant adverse effect on Nitrogen minerali-

zation.

Method: OECD Test Guideline 217

Remarks: No significant adverse effect on Carbon mineraliza-

tion.

according to the Globally Harmonized System



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Toxicity to terrestrial organ-

isms

LD50: > 0.0934 µg/bee Exposure time: 72 h

End point: Acute contact toxicity Species: Apis mellifera (bees) Method: OECD Test Guideline 214

GLP: yes

LD50:  $> 0.1055 \mu g/bee$  Exposure time: 48 h

End point: Acute oral toxicity Species: Apis mellifera (bees) Method: OECD Test Guideline 213

GLP: yes

LD50: > 2,250 mg/kg

End point: Acute oral toxicity Species: Colinius virginianus

Method: US EPA Test Guideline OPPTS 850.2100

GLP: yes

NOEC: 1,000 ppm

End point: Reproduction Test

Species: Anas platyrhynchos (Mallard duck)

Method: OECD Test Guideline 206

GLP: yes

1,2-benzisothiazol-3(2H)-one:

Toxicity to fish : LC50 (Cyprinodon variegatus (sheepshead minnow)): 16.7

mg/l

Exposure time: 96 h Test Type: static test

LC50 (Oncorhynchus mykiss (rainbow trout)): 2.15 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 2.9 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): 0.070

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.04

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

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M-Factor (Acute aquatic tox- : 10

icity)

Toxicity to microorganisms EC50 (activated sludge): 24 mg/l

Exposure time: 3 h

Test Type: Respiration inhibition Method: OECD Test Guideline 209

EC50 (activated sludge): 12.8 mg/l

Exposure time: 3 h

Test Type: Respiration inhibition Method: OECD Test Guideline 209

### Persistence and degradability

**Product:** 

Biodegradability Result: Not readily biodegradable.

Remarks: Estimation based on data obtained on active ingre-

dient.

Product contains minor amounts of not readily biodegradable components, which may not be degradable in waste water

treatment plants.

**Components:** 

Cyantraniliprole:

Biodegradability Remarks: Not readily biodegradable.

Stability in water Degradation half life (DT50): 9.09 - 37.7 d

Remarks: Fresh water

Degradation half life (DT50): 76.6 - 119 d

Remarks: Soil

Degradation half life (DT50): 22.8 - 25.1 d

Remarks: total system

1,2-benzisothiazol-3(2H)-one:

Biodegradability Result: rapidly biodegradable

Method: OECD Test Guideline 301C

Bioaccumulative potential

**Product:** 

Bioaccumulation Remarks: Does not bioaccumulate.

Estimation based on data obtained on active ingredient.

**Components:** 

**Cyantraniliprole:** 

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Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)

Bioconcentration factor (BCF): < 1 Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-

octanol/water

: log Pow: 1.97 (22 °C)

pH: 4

log Pow: 2.07 (22 °C)

pH: 7

log Pow: 1.74 (22 °C)

pH: 9

1,2-benzisothiazol-3(2H)-one:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)

Exposure time: 56 d

Bioconcentration factor (BCF): 6.62 Method: OECD Test Guideline 305

Remarks: Substance is not persistent, bioaccumulative, and

toxic (PBT).

Partition coefficient: n-

octanol/water

log Pow: 0.7 (20 °C)

pH: 7

log Pow: 0.99 (20 °C)

pH: 5

Mobility in soil

**Components:** 

Cyantraniliprole:

Distribution among environ-

mental compartments

Koc: 241 ml/g, log Koc: 2.38

Kd: 3.73 ml/g

Remarks: Mobile in soils

1,2-benzisothiazol-3(2H)-one:

Distribution among environ-

mental compartments

Koc: 9.33 ml/g, log Koc: 0.97 Method: OECD Test Guideline 121 Remarks: Highly mobile in soils

Other adverse effects

Product:

Additional ecological infor-

mation

An environmental hazard cannot be excluded in the event of

unprofessional handling or disposal.

Very toxic to aquatic life with long lasting effects.

according to the Globally Harmonized System



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#### 13. DISPOSAL CONSIDERATIONS

**Disposal methods** 

Waste from residues : The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.

Triple rinse containers.

Do not re-use empty containers.

Packaging that is not properly emptied must be disposed of as

the unused product.

Empty containers should be taken to an approved waste han-

dling site for recycling or disposal.

#### 14. TRANSPORT INFORMATION

### International Regulations

**UNRTDG** 

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Cyantraniliprole)

Class : 9
Packing group : III
Labels : 9
Environmentally hazardous : yes

IATA-DGR

UN/ID No. : UN 3082

Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.

(Cyantraniliprole)

Class : 9 Packing group : III

Labels : Miscellaneous

Packing instruction (cargo :

aircraft)

Packing instruction (passen- :

ger aircraft)

Environmentally hazardous : yes

**IMDG-Code** 

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

964

964

(Cyantraniliprole)

Class : 9
Packing group : III
Labels : 9

according to the Globally Harmonized System



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EmS Code : F-A, S-F Marine pollutant : yes

#### Transport in bulk according to IMO instruments

Not applicable for product as supplied.

### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

#### 15. REGULATORY INFORMATION

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

The ingredients of this product are reported in the following inventories:

TCSI : On the inventory, or in compliance with the inventory

TSCA : Product contains substance(s) not listed on TSCA inventory.

AIIC : Not in compliance with the inventory

DSL : This product contains the following components that are not

on the Canadian DSL nor NDSL.

3-BROMO-1-(3-CHLORO-2-PYRIDYL)-4'-CYAN-2'-METHYL-

6'-(METHYLCARBAMOYL)-1H-PYRAZOLE-5-

**CARBOXANILIDE** 

**ACTI-GEL 208 (ACTIVE MINERALS)** 

ENCS : Not in compliance with the inventory

ISHL : Not in compliance with the inventory

KECI : Not in compliance with the inventory

PICCS : Not in compliance with the inventory

IECSC : Not in compliance with the inventory

NZIoC : Not in compliance with the inventory

TECI: Not in compliance with the inventory

#### **16. OTHER INFORMATION**

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Date format : dd.mm.yyyy

#### Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China: IMDG - International Maritime Dangerous Goods: IMO - International Maritime Organization: ISHL - Industrial Safety and Health Law (Japan): ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

### **Disclaimer**

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