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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name VANTACOR™ 600 SC

Other means of identification

Product code 50002517

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

Use of the Sub- : Insecticide

stance/Mixture

Recommended restrictions

on use

: Use as recommended by the label.

1.3 Details of the supplier of the safety data sheet

Supplier Address FMC Agricultural Solutions A/S

Thyborønvej 78 DK-7673 Harboøre

Denmark

Telephone: +45 9690 9690 Telefax: +45 9690 9691

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

**1.4 Emergency telephone** For leak, fire, spill or accident emergencies, call:

1 703 / 741-5970 (CHEMTREC - International) 1 703 / 527-3887 (CHEMTREC - Alternate) Denmark: +45-69918573 (CHEMTREC)

Medical emergency:

All other countries: +1 651 / 632-6793 (Collect)

Denmark: +45 82 12 12 12

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Short-term (acute) aquatic hazard, Cate- H400: Very toxic to aquatic life.

gory 1

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Long-term (chronic) aquatic hazard, Cat-

egory 1

H410: Very toxic to aquatic life with long lasting

effects.

#### 2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms

¥\_2

Signal Word : Warning

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 as hazardous

waste in accordance with local regulations.

**Additional Labeling** 

EUH208 Contains reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-

2H-isothiazol-3-one (3:1), 2,4,7,9-tetramethyldec-5-yne-4,7-diol. May produce

an allergic reaction.

EUH401 To avoid risks to human health and the environment, comply with the instruc-

tions for use.

2.3 Other hazards

This substance/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.

## **SECTION 3: Composition/information on ingredients**

### 3.2 Mixtures

#### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Chlorantraniliprole	500008-45-7	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 30 - < 50

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Sodium alkyl naphthalene sulfonate	68425-94-5	M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10 Eye Irrit. 2; H319 Aquatic Chronic 3;	>= 1 - < 2.5
2,4,7,9-tetramethyldec-5-yne-4,7-diol	126-86-3 204-809-1	Acute Tox. 4; H302 Eye Dam. 1; H318 Skin Sens. 1B; H317 STOT SE 3; H335 (Respiratory system) Aquatic Chronic 3; H412	>= 0.25 - < 1
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9 613-167-00-5	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 2; H310 Skin Corr. 1C; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410  M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 100	>= 0.0015 - < 0.0025

For explanation of abbreviations see section 16.

## **SECTION 4: First aid measures**

## 4.1 Description of first-aid measures

General advice : Move out of dangerous area.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

Protection of first-aiders : Avoid inhalation, ingestion and contact with skin and eyes.

If inhaled : Remove to fresh air.

If unconscious, place in recovery position and seek medical

advice.

If symptoms persist, call a physician.

In case of skin contact : If on skin, rinse well with water.

If on clothes, remove clothes.

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Wash off with soap and plenty of water.

Get medical attention if irritation develops and persists.

In case of eye contact : Immediately flush eye(s) with plenty of water.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed : 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.

Do not induce vomiting without medical advice.

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

None known.

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

Treatment : Treat symptomatically.

## **SECTION 5: Firefighting measures**

### 5.1 Extinguishing media

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

Unsuitable extinguishing

media

High volume water jet

#### 5.2 Special hazards arising from the substance or mixture

Specific hazards during fire

fighting

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

courses.

Hazardous combustion prod: :

ucts

Thermal decomposition can lead to release of irritating gases

and vapors.

Nitrogen oxides (NOx)

Carbon oxides

Bromine compounds
Chlorine compounds
Hydrogen cyanide
Hydrogen chloride
Sulfur oxides

#### 5.3 Advice for firefighters

Special protective equipment:

for fire-fighters

Firefighters should wear protective clothing and self-contained

breathing apparatus.

Wear self-contained breathing apparatus for firefighting if nec-

essary.

Specific extinguishing meth- : Remove unda

Remove undamaged containers from fire area if it is safe to do

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ods so.

Use a water spray to cool fully closed containers.

Further information : Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment.

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.

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.

#### **SECTION 6: Accidental release measures**

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

Personal precautions : Use personal protective equipment.

If it can be safely done, stop the leak.

Keep people away from and upwind of spill/leak.

Remove all sources of ignition.

Immediately evacuate personnel to safe areas.

Ensure adequate ventilation.

Never return spills in original containers for re-use.

Mark the contaminated area with signs and prevent access to

unauthorized personnel.

Only qualified personnel equipped with suitable protective

equipment may intervene.

#### 6.2 Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so.

Prevent product from entering drains.

If the product contaminates rivers and lakes or drains inform

respective authorities.

#### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Never return spills in original containers for re-use.

Collect as much of the spill as possible with a suitable absor-

bent material.

Pick up and transfer to properly labeled containers. Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

#### **SECTION 7: Handling and storage**

# 7.1 Precautions for safe handling

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Advice on safe handling : Do not breathe vapors/dust.

Avoid contact with skin and eyes. For personal protection see section 8.

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

plication area.

Dispose of rinse water in accordance with local and national

regulations.

Advice on protection against

fire and explosion

Normal measures for preventive fire protection.

Hygiene measures : General industrial hygiene practice. Avoid contact with skin,

eyes and clothing. Do not inhale aerosol. When using do not eat or drink. When using do not smoke. Wash hands before

breaks and at the end of workday.

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

Requirements for storage areas and containers

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 availa-

ble.

Further information on stor-

age stability

No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : Registered pesticide to be used in accordance with a label

approved by country-specific regulatory authorities.

## **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

#### **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form	Control parameters	Basis
		of exposure)		
propane-1,2-diol	57-55-6	TWA (particulate)	10 mg/m3	KE OEL
Further information	Recommended Limit			
		TWA (Vapour	150 ppm	KE OEL
		and particles)	470 mg/m3	
Further information	Recommended Limit			
glycerol	56-81-5	TWA (Mist)	10 mg/m3	KE OEL

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# Further information | Recommended Limit

## Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Routes of expo-	Potential health effects	Value
propane-1,2-diol	Workers	Inhalation	Long-term systemic effects	168 mg/m3
	Workers	Inhalation	Long-term local ef- fects	10 mg/m3
	Consumers	Inhalation	Long-term systemic effects	50 mg/m3
	Consumers	Inhalation	Long-term local ef- fects	10 mg/m3
glycerol	Consumers	Oral	Long-term systemic effects	229 mg/kg
	Consumers	Inhalation	Long-term local ef- fects	33 mg/m3
	Workers	Inhalation	Long-term local ef- fects	56 mg/m3
2,4,7,9- tetramethyldec-5-yne- 4,7-diol	Workers	Inhalation	Long-term systemic effects	1.76 mg/m3
	Workers	Dermal	Long-term systemic effects	0.5 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0.43 mg/m3
	Consumers	Dermal	Long-term systemic effects	0.25 mg/kg
	Consumers	Oral	Long-term systemic effects	0.25 mg/kg
reaction mass of 5- chloro-2-methyl-2H- isothiazol-3-one and 2-methyl-2H- isothiazol-3-one (3:1)	Workers	Inhalation	Long-term local effects	0.02 mg/m3
, ,	Workers	Inhalation	Acute local effects	0.04 mg/m3
	Consumers	Inhalation	Long-term local ef- fects	0.02 mg/m3
	Consumers	Inhalation	Acute local effects	0.04 mg/m3
	Consumers	Oral	Long-term systemic effects	0.09 mg/kg
	Consumers	Oral	Acute systemic effects	0.11 mg/kg

# Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Chlorantraniliprole	Water	0.00045 mg/l
propane-1,2-diol	Fresh water	260 mg/l
	Intermittent use/release	183 mg/l
	Sea water	26 mg/l
	Sewage treatment plant	20 g/l
	Fresh water sediment	572 mg/kg
	Sea sediment	57.2 mg/kg
	Soil	50 mg/kg

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glycerol	Fresh water	0.885 mg/l
	Intermittent use/release	8.85 mg/l
	Sewage treatment plant	1000 mg/l
	Fresh water sediment	3.3 mg/l
	Sea sediment	0.33 mg/l
	Soil	0.141 mg/kg dry weight (d.w.)
2,4,7,9-tetramethyldec-5-yne-4,7-diol	Fresh water	0.04 mg/l
	Sea water	0.004 mg/l
	Fresh water sediment	0.32 mg/kg dry weight (d.w.)
	Sea sediment	0.032 mg/kg dry weight (d.w.)
	Soil	0.028 mg/kg dry weight (d.w.)
reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	Fresh water	0.00339 mg/l
	Intermittent use/release	0.00339 mg/l
	Sea water	0.00339 mg/l
	Sewage treatment plant	0.23 mg/l
	Fresh water sediment	0.027 mg/kg
	Sea sediment	0.027 mg/kg

## 8.2 Exposure controls

#### Personal protective equipment

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing

problems.

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.

Skin and body protection : Impervious clothing

Choose body protection according to the amount and concen-

tration of the dangerous substance at the work place.

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

sonal respiratory protection and protective suit.

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-

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tions for use.

## **SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties

Appearance : liquid, suspension

Color : white

Odor : soapy

Odor Threshold : No data available

pH : ca. 6.5

Melting point/freezing point : No data available

Boiling point/boiling range : No data available

Flash point :  $> 100 \, ^{\circ}\text{C}$ 

Evaporation rate : No data available

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Vapor pressure : Not available for this mixture.

Relative vapor density : No data available

Relative density : No data available

Density : 1.2623 g/cm3 (23.3 °C)

Bulk density : ca. 1.25 g/cm3

Solubility(ies)

Water solubility : dispersible

Partition coefficient: n-

octanol/water

Not available for this mixture.

Autoignition temperature : No data available

Decomposition temperature : Thermal decomposition can lead to release of irritating gases

and vapors.

Viscosity

Viscosity, dynamic : No data available

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Viscosity, kinematic : 325.5 mm2/s (23.1 °C)

274.6 mm2/s (43.5 °C)

Explosive properties : Not explosive

Oxidizing properties : Non-oxidizing

9.2 Other information

Flammability (liquids) : Not applicable

Molecular weight : Not applicable

Particle size : Not applicable

Particle Size Distribution : Not applicable

Self-ignition : No data available

## **SECTION 10: Stability and reactivity**

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

10.4 Conditions to avoid

Conditions to avoid : Avoid formation of aerosol.

Heat, flames and sparks.

Protect from frost, heat and sunlight.

10.5 Incompatible materials

Materials to avoid : Avoid strong acids, bases, and oxidizers.

#### 10.6 Hazardous decomposition products

Stable under recommended storage conditions.

## **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

#### **Acute toxicity**

Not classified based on available information.

**Product:** 

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

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Acute inhalation toxicity LC50 (Rat): > 5.16 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

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

**Components:** 

Chlorantraniliprole:

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

Method: OECD Test Guideline 425

Acute inhalation toxicity LC50 (Rat, male and female): > 5.1 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, male and female): > 5,000 mg/kg

Method: OECD Test Guideline 402

Sodium alkyl naphthalene sulfonate:

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

2,4,7,9-tetramethyldec-5-yne-4,7-diol:

: LD50 (Rat, male and female): > 500 mg/kg Acute oral toxicity

Acute toxicity estimate: 500.05 mg/kg

Method: ATE value derived from LD50/LC50 value

Acute inhalation toxicity LC0 (Rat, male and female): > 1 mg/l

Exposure time: 1 h

Test atmosphere: dust/mist Symptoms: Irritation Remarks: no mortality

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

Method: OECD Test Guideline 402

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

(3:1):

Acute oral toxicity LD50 Oral (Rat, female): 200 mg/kg

Method: OECD Test Guideline 423

Acute toxicity estimate: 200 mg/kg

Method: ATE value derived from LD50/LC50 value

LC50 (Rat, male and female): 0.33 mg/l Acute inhalation toxicity

Exposure time: 4 h

Test atmosphere: dust/mist

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Method: OECD Test Guideline 403

Assessment: Corrosive to the respiratory tract.

Acute toxicity estimate: 0.33 mg/l Test atmosphere: dust/mist

Method: ATE value derived from LD50/LC50 value

Acute dermal toxicity : LD50 (Rabbit, male): 87 mg/kg

Acute toxicity estimate: 87 mg/kg

Method: ATE value derived from LD50/LC50 value

#### Skin corrosion/irritation

Not classified based on available information.

**Product:** 

Assessment : No skin irritation

Remarks : Minimal effects that do not meet the threshold for classifica-

tion.

#### **Components:**

#### Chlorantraniliprole:

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

#### Sodium alkyl naphthalene sulfonate:

Remarks : No data available

#### 2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Species : Rabbit

Method : OECD Test Guideline 404

Result : slight irritation

# reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

(3:1):

Method : OECD Test Guideline 404

Result : Corrosive after 1 to 4 hours of exposure

#### Serious eye damage/eye irritation

Not classified based on available information.

**Product:** 

Assessment : No eye irritation

Remarks : Minimal effects that do not meet the threshold for classifica-

tion

#### **Components:**

#### Chlorantraniliprole:

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Species : Rabbit

Method : OECD Test Guideline 405

Result : No eye irritation

Sodium alkyl naphthalene sulfonate:

Result : Eye irritation

2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Species : Rabbit

Result : Irreversible effects on the eye

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

(3:1):

Result : Irreversible effects on the eye

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

**Product:** 

Test Type : Local lymph node assay (LLNA)

Assessment : Did not cause sensitization on laboratory animals.

**Components:** 

**Chlorantraniliprole:** 

Test Type : Maximization Test

Species : Guinea pig

Method : OECD Test Guideline 406

Result : Does not cause skin sensitization.

Test Type : Local lymph node assay (LLNA)

Species : mice

Method : OECD Test Guideline 429

Result : Does not cause skin sensitization.

2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Test Type : Local lymph node assay (LLNA)

Routes of exposure : Skin contact Species : Mouse

Method : OECD Test Guideline 429

Result : Probability or evidence of low to moderate skin sensitization

rate in humans

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

(3:1):

Test Type : Local lymph node assay (LLNA)

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Species : Mouse

Result : The product is a skin sensitizer, sub-category 1A.

## Germ cell mutagenicity

Not classified based on available information.

#### **Components:**

#### Chlorantraniliprole:

Genotoxicity in vitro : Test Type: reverse mutation assay

Metabolic activation: with and without metabolic activation

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster ovary cells Method: OECD Test Guideline 476

Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test

Species: Mouse

Method: OECD Test Guideline 474

Result: negative

Germ cell mutagenicity- As-

sessment

Weight of evidence does not support classification as a germ

cell mutagen.

## 2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Genotoxicity in vitro : Test Type: gene mutation test

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

#### Carcinogenicity

Not classified based on available information.

#### Components:

## **Chlorantraniliprole:**

Species : Rat, male and female

Application Route : Oral Exposure time : 2 Years

NOAEL : 805 - 1,076 mg/kg bw/day Method : OECD Test Guideline 453

Result : negative

Species : Mouse, male and female

Application Route : Oral

Exposure time : 18 month(s)

NOAEL : 158 - 1,155 mg/kg bw/day Method : OECD Test Guideline 453

Result : negative

Carcinogenicity - Assess-

ment

: Animal testing did not show any carcinogenic effects.

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#### Reproductive toxicity

Not classified based on available information.

#### **Components:**

Chlorantraniliprole:

Effects on fertility : Test Type: Two-generation study

Species: Rat, male and female

Application Route: Oral

General Toxicity Parent: NOAEL: 20,000 ppm General Toxicity F1: NOAEL: 20,000 ppm Method: OECD Test Guideline 416

Result: negative

Effects on fetal development : Test Type: Pre-natal

Species: Rat

Application Route: Oral

Duration of Single Treatment: 6 - 20 d

General Toxicity Maternal: NOEL: 1,000 mg/kg bw/day Developmental Toxicity: NOEL: 1,000 mg/kg bw/day

Method: OECD Test Guideline 414

Result: negative

Reproductive toxicity - As-

sessment

Weight of evidence does not support classification for repro-

ductive toxicity

#### 2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Effects on fertility : Test Type: reproductive and developmental toxicity study

Species: Rat, male and female

Result: negative

Effects on fetal development : Test Type: reproductive and developmental toxicity study

Species: Rat

**Application Route: Ingestion** 

Result: negative

#### STOT-single exposure

Not classified based on available information.

#### **Components:**

#### Chlorantraniliprole:

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

organ toxicant, single exposure.

Remarks : No significant adverse effects were reported

#### 2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Assessment : May cause respiratory irritation.

## STOT-repeated exposure

Not classified based on available information.

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#### **Components:**

#### **Chlorantraniliprole:**

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

organ toxicant, repeated exposure.

#### Repeated dose toxicity

#### Components:

#### **Chlorantraniliprole:**

Species : Rat, male and female NOEL : 1188 - 1526 mg/kg

Application Route : Oral Exposure time : 90 days

Method : OECD Test Guideline 408

#### 2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Species : Rat, male and female

NOAEL : 150 mg/kg Application Route : Ingestion Exposure time : 30 d

Method : OECD Test Guideline 408

# reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

(3:1):

Species : Dog NOAEL : 22 mg/kg Application Route : Oral

Species : Rat

NOAEL : 16.3 - 24.7 mg/kg Application Route : Skin contact

Species : Rat

NOAEL : 2.36 mg/m³ Application Route : Inhalation

## **Aspiration toxicity**

Not classified based on available information.

#### **Product:**

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

## **Components:**

#### Chlorantraniliprole:

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

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**Neurological effects** 

**Components:** 

Chlorantraniliprole:

Remarks : No neurotoxicity observed in animal studies.

**Further information** 

**Product:** 

Remarks : No data available

## **SECTION 12: Ecological information**

#### 12.1 Toxicity

**Product:** 

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): > 21 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203 Remarks: (Data on the product itself)

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.015 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202 Remarks: (Data on the product itself)

Toxicity to algae/aquatic

plants

ErC50 (Raphidocelis subcapitata (freshwater green alga)): >

7.7 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

NOEC (Raphidocelis subcapitata (freshwater green alga)): 3.8

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

LOEC (Raphidocelis subcapitata (freshwater green alga)): 7.7

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to soil dwelling or-

ganisms

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

Species: Eisenia fetida (earthworms)

Toxicity to terrestrial organ-

isms

LD50: > 160 µg/bee Exposure time: 48 h

End point: Acute oral toxicity Species: Apis mellifera (bees)

LD50: > 150 μg/bee Exposure time: 48 h

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End point: Acute contact toxicity Species: Apis mellifera (bees)

LD50: > 2,000 mg/kg

End point: Acute oral toxicity

Species: Colinus virginianus (Bobwhite quail)

Method: OECD Test Guideline 223

**Ecotoxicology Assessment** 

Acute aquatic toxicity : Very toxic to aquatic life.

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

**Components:** 

Chlorantraniliprole:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 13.8 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.0116 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

ErC50 (Pseudokirchneriella subcapitata (green algae)): > 2

mg/l

Exposure time: 120 h

EC50 (Lemna gibba (duckweed)): > 2 mg/l

Exposure time: 14 d

NOEC (Lemna gibba (duckweed)): 2 mg/l

Exposure time: 14 d

ErC50 (Selenastrum capricornutum (green algae)): > 2 mg/l

Exposure time: 72 h

M-Factor (Acute aquatic tox-

icity)

10

Toxicity to fish (Chronic tox-

icity)

NOEC: 1.28 mg/l

Exposure time: 36 d

Species: Cyprinodon variegatus (sheepshead minnow)

NOEC: 0.110 mg/l Exposure time: 28 d

Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other

aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0.00447 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic

toxicity)

10

Toxicity to soil dwelling or- : LC50: > 1,000 mg/kg

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ganisms Exposure time: 14 d

Species: Eisenia fetida (earthworms)

Toxicity to terrestrial organ-

isms

LD50: > 4.0 µg/bee Exposure time: 72 h

End point: Acute contact toxicity Species: Apis mellifera (bees)

Remarks: Active substance dissolved in acetone

LD50:  $> 0.005 \mu g/bee$ Exposure time: 48 h

End point: Acute contact toxicity Species: Apis mellifera (bees)

Remarks: Active substance dissolved in water

LD50: > 104.1 µg/bee Exposure time: 48 h

End point: Acute oral toxicity Species: Apis mellifera (bees)

Remarks: Active substance dissolved in acetone

LD50: >  $0.0274 \mu g/bee$  Exposure time: 48 h

End point: Acute oral toxicity Species: Apis mellifera (bees)

Remarks: Active substance dissolved in water

LD50: > 2,250 mg/kg

Species: Colinus virginianus (Bobwhite quail)

LC50: > 5,620 ppm

Species: Anas platyrhynchos (Mallard duck)

LD50: > 2,250 mg/kg

Species: Poephila guttata (zebra finch)

## Sodium alkyl naphthalene sulfonate:

Toxicity to fish : LC50 (Zebra fish): > 10 - 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): > 100

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

EC10 (Pseudokirchneriella subcapitata (green algae)): > 100

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mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Toxicity to daphnia and other : aquatic invertebrates (Chron-

EC10: > 10 - 100 mg/l Exposure time: 21 d

ic toxicity)

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

Remarks: Based on data from similar materials

2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 42 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

LC50 (Daphnia magna (Water flea)): 91 mg/l

Exposure time: 48 h Test Type: Immobilization

Toxicity to microorganisms : EC50 (activated sludge): 680 mg/l

Exposure time: 3 h

Test Type: Respiration inhibition

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.19 mg/l

Exposure time: 96 h

GLP: yes

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.16 mg/l

Exposure time: 48 h

NOEC (Daphnia magna (Water flea)): 0.1 mg/l

Exposure time: 21 Days

EC50 (Daphnia magna (Water flea)): 0.18 mg/l

Exposure time: 21 Days

Toxicity to algae/aquatic

plants

NOEC (Skeletonema costatum (marine diatom)): 0.00049 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 201

NOEC (Skeletonema costatum (marine diatom)): 0.019 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

EC50 (Skeletonema costatum (marine diatom)): 0.037 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 201

M-Factor (Acute aquatic tox-

icity)

100

Toxicity to microorganisms : NOEC (activated sludge): 0.91 mg/l

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Exposure time: 3 h

Method: OECD Test Guideline 209

GLP: yes

EC50 (activated sludge): 4.5 mg/l

Exposure time: 3 h

Method: OECD Test Guideline 209

GLP: yes

Toxicity to fish (Chronic tox-

icity)

NOEC: 0.02 mg/l

Exposure time: 35 d

Species: Danio rerio (zebra fish) Method: OECD Test Guideline 210

GLP: yes

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0.1 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Chronic Toxicity Value: 0.18 mg/l

Exposure time: 21 d

Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic

toxicity)

100

## 12.2 Persistence and degradability

**Product:** 

Biodegradability : Remarks: Product contains minor amounts of not readily bio-

degradable components, which may not be degradable in

waste water treatment plants.

**Components:** 

**Chlorantraniliprole:** 

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life (DT50): 10 d

pH: 9

Sodium alkyl naphthalene sulfonate:

Biodegradability : Result: Not readily biodegradable.

Remarks: Based on data from similar materials

2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Biodegradability : Result: Not readily biodegradable.

Biodegradation: 5 % Exposure time: 28 d

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reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

(3:1):

Biodegradability : Result: Readily biodegradable.

12.3 Bioaccumulative potential

**Product:** 

Bioaccumulation : Remarks: No data is available on the product itself.

**Components:** 

**Chlorantraniliprole:** 

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)

Bioconcentration factor (BCF): 15 Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-

octanol/water

log Pow: 2.77 (20 °C)

pH: 4

log Pow: 2.86 (20 °C)

pH: 7

log Pow: 2.80 (20 °C)

pH: 9

2,4,7,9-tetramethyldec-5-yne-4,7-diol:

Bioaccumulation : Bioconcentration factor (BCF): 24

Remarks: This substance is not considered to be very persis-

tent and very bioaccumulating (vPvB).

Partition coefficient: n-

octanol/water

log Pow: 2.8 (22 °C)

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

(3:1):

Bioaccumulation : Exposure time: 28 d

Bioconcentration factor (BCF): < 54 Method: OECD Test Guideline 305

Partition coefficient: n-

octanol/water

: Pow: 0.75

12.4 Mobility in soil

**Product:** 

Distribution among environ-

mental compartments

: Remarks: No data is available on the product itself.

**Components:** 

Chlorantraniliprole:

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Distribution among environmental compartments

: Koc: 362 ml/g, log Koc: 2.55 Remarks: Mobile in soils

Stability in soil : Remarks: Very persistent in soil.

#### 12.5 Results of PBT and vPvB assessment

### **Product:**

Assessment : This substance/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 Other adverse effects

#### **Product:**

Endocrine disrupting poten-

tial

The substance/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.

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.

#### **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Product : 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.

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.

#### **SECTION 14: Transport information**

#### 14.1 UN number

 UNRTDG
 : UN 3082

 IMDG
 : UN 3082

 IATA
 : UN 3082

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14.2 UN proper shipping name

**UNRTDG** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Chlorantraniliprole)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Chlorantraniliprole)

IATA : Environmentally hazardous substance, liquid, n.o.s.

(Chlorantraniliprole)

14.3 Transport hazard class(es)

UNRTDG : 9IMDG : 9IATA : 9

14.4 Packing group

**UNRTDG** 

Packing group : III Labels : 9

**IMDG** 

Packing group : III Labels : 9

EmS Code : F-A, S-F

IATA (Cargo)

Packing instruction (cargo : 964

aircraft)

Packing instruction (LQ) : Y964
Packing group : III

Labels : Miscellaneous

IATA (Passenger)

Packing instruction (passen: 964

ger aircraft)

Packing instruction (LQ) : Y964
Packing group : III

Labels : Miscellaneous

14.5 Environmental hazards

**IMDG** 

Marine pollutant : yes

IATA (Passenger)

Environmentally hazardous : yes

IATA (Cargo)

Environmentally hazardous : yes

14.6 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.

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#### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

#### **SECTION 15: Regulatory information**

# 15.1 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-4'-CHLORO-1-(3-CHLORO-2-PYRIDYL)-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

#### 15.2 Chemical Safety Assessment

A chemical safety assessment is not required for this product (mixture).

#### **SECTION 16: Other information**

## **Full text of H-Statements**

H301 : Toxic if swallowed.
H302 : Harmful if swallowed.
H310 : Fatal in contact with skin.

H314 : Causes severe skin burns and eye damage.

H317 : May cause an allergic skin reaction.
H318 : Causes serious eye damage.
H319 : Causes serious eye irritation.

H330 : Fatal if inhaled.

H335 : May cause respiratory irritation.

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H400 : Very toxic to aquatic life.

H410 : Very toxic to aquatic life with long lasting effects.
 H412 : Harmful to aquatic life with long lasting effects.

EUH071 : Corrosive to the respiratory tract.

#### Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Acute : Short-term (acute) aquatic hazard
Aquatic Chronic : Long-term (chronic) aquatic hazard

Eye Dam. : Serious eye damage

Eye Irrit. : Eye irritation
Skin Corr. : Skin corrosion
Skin Sens. : Skin sensitization

STOT SE : Specific target organ toxicity - single exposure

KE OEL : Kenya. Occupational Exposure Limits

KE OEL / TWA : TWA OEL

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA -European Chemicals Agency; EC-Number - European Community number; 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; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; 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

Other information :

Classification of the mixture:

Classification procedure:

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Aquatic Acute 1 H400 Calculation method
Aquatic Chronic 1 H410 Calculation method

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