Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Section 1: Identification

Product name : Exirel™ Insect Control

Recommended use of the chemical and restrictions on use

Recommended use : Insecticide

Restrictions on use : Use as recommended by the label.

Manufacturer or supplier's details

Company : FMC New Zealand Ltd

Address : Level 5, 3 Te Kehu Way, Mount Wellington

1060 Auckland New Zealand

Telephone : +640800658080

Telefax : (09)-271-2961

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

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

0800 734 607 (Ixom)

Medical emergency:

0800 764 766 (NZ Poisons Information Centre) 0800 111174 (24 hour Medical Emergency) 0800 387668 (Transport Emergency)

Section 2: Hazard identification

GHS Classification

Skin corrosion/irritation : Category 2

Skin sensitisation : Category 1

Specific target organ toxicity - :

repeated exposure

Category 2 (Liver, Thyroid)

Hazardous to the aquatic environment - acute hazard

: Category 1

Hazardous to the aquatic environment - chronic hazard

Category 1

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Ecotoxic to terrestrial inverte-

brates

GHS label elements

Hazard pictograms







Signal word : Warning

Hazard statements : H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H373 May cause damage to organs (Liver, Thyroid) through

prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

H442 Toxic to terrestrial invertebrates.

Precautionary statements : Prevention:

P260 Do not breathe mist or vapours. P264 Wash skin thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of

the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water. P314 Get medical advice/ attention if you feel unwell.

P333 + P313 If skin irritation or rash occurs: Get medical ad-

vice/ attention.

P362 + P364 Take off contaminated clothing and wash it before

reuse.

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.

Section 3: Composition/information on ingredients

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)	
Cyantraniliprole	736994-63-1	10.2	
Fatty acids, soya, Me esters	68919-53-9	>= 30 -< 50	
propane-1,2-diol	57-55-6	>= 1 -< 10	

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Benzenesulfonic acid, 4-C10-13-sec-alkyl	84989-14-0	>= 1 -< 2.5	
derivs., calcium salts			
Alcohols, C12-15, ethoxylated	68131-39-5	>= 0.25 -< 1	
5-chloro-2-methyl-2H-isothiazol-3-one	26172-55-4	>= 0.0005 -< 0.0025	

Section 4: 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.

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 : Take off all contaminated clothing immediately.

If on clothes, remove clothes. If on skin, rinse well with water.

Wash off immediately with soap and plenty of water. Get medical attention immediately if irritation develops and

persists.

Wash contaminated clothing before re-use.

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.

Most important symptoms and effects, both acute and

delayed

Causes skin irritation.

May cause an allergic skin reaction.

May cause damage to organs through prolonged or repeated

exposure.

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

Notes to physician : Treat symptomatically.

Immediate medical attention is required in case of ingestion.

Section 5: Fire-fighting measures

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

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

Unsuitable extinguishing

media

High volume water jet

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.

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

Chlorine compounds

Specific extinguishing meth-

ods

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

SO.

Use a water spray to cool fully closed containers.

Standard procedure for chemical fires.

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.

Special protective equipment:

for firefighters

Firefighters should wear protective clothing and self-contained

breathing apparatus.

Hazchem Code : 3Z

Section 6: Accidental release measures

Personal precautions, protec: : tive equipment and emer-

gency procedures

Evacuate personnel to safe areas.

Use personal protective equipment.

Do not touch or walk through the spilled material.

If it can be safely done, stop the leak.

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.

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

Never return spills in original containers for re-use.

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

bent material.

Exirel™ Insect Control



Version Revision Date: 02.10.2024

SDS Number: 50000098

Date of last issue: 24.07.2023 Date of first issue: 24.07.2023

Pick up and transfer to properly labelled containers.

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

acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

Section 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.

Do not breathe vapours/dust.

Avoid exposure - obtain special instructions before use.

Avoid contact with skin and eyes. 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.

Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being

used.

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. Remove and wash contaminated clothing and gloves, includ-

ing the inside, before re-use.

Conditions for safe storage : I

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.

Protect from frost and extreme heat.

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.

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Recommended storage tem- :

perature

> 0 - 30 °C

Further information on stor-

age stability

No decomposition if stored and applied as directed.

Section 8: Exposure controls/personal protection

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
propane-1,2-diol	57-55-6	WES-TWA (particulate)	10 mg/m3	NZ OEL
		WES-TWA (Vapour and particulates)	150 ppm 474 mg/m3	NZ OEL

Personal protective equipment

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

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

Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing

problems.

Skin and body protection : Impervious clothing

Choose body protection according to the amount and concentration 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.

Section 9: Physical and chemical properties

Appearance : liquid

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Colour : off-white

Odour : mild, phenol-like

Odour Threshold : not determined

pH : 5.6

Concentration: 10 g/l 1 %

(as a dispersion)

Melting point/ range : No data available

Boiling point/boiling range : 97 °C

Flash point : > 97 °C

Method: closed cup

No flash up to boiling point.

Evaporation rate : No data available

Flammability (solid, gas) : The product is not flammable.

Self-ignition : 358 °C

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Vapour pressure : Not available for this mixture.

Relative vapour density : No data available

Relative density : 0.982

Method: Regulation (EC) No. 440/2008, Annex, A.3

Density : No data available

Solubility(ies)

Water solubility : dispersible

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

Not available for this mixture.

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Auto-ignition temperature : No data available

Viscosity

Viscosity, dynamic : 649.5 mPa,s (24.7 °C)

Method: CIPAC MT 192

25 rpm

454.3 mPa,s (24.7 °C) Method: CIPAC MT 192

50 rpm

329.9 mPa,s (24.7 °C) Method: CIPAC MT 192

100 rpm

Explosive properties : Not explosive

Oxidizing properties : The product is not oxidizing.

Surface tension : 25.9 mN/m, 22 °C, Regulation (EC) No. 440/2008, Annex, A.5

Molecular weight : Not applicable

Particle size : Not applicable

Section 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 : Avoid extreme temperatures

Avoid formation of aerosol. Heat, flames and sparks.

Heating of the product will produce harmful and irritant va-

pours.

Incompatible materials : Avoid strong acids, bases, and oxidizers

Hazardous decomposition

products

Nitrogen oxides (NOx)

Carbon oxides Sulphur oxides

Section 11: Toxicological information

Acute toxicity

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

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Product:

Acute oral toxicity : 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

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.4 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

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

Components:

Cyantraniliprole:

Acute oral toxicity : LD50 (Mouse, 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

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: yes

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

Fatty acids, soya, Me esters:

Acute oral toxicity : LD50 (Rat): 5,000 - 15,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

9/28

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

propane-1,2-diol:

Acute oral toxicity : LD50 (Rat, male and female): 22,000 mg/kg

Acute inhalation toxicity : LC0 (Rabbit): 31.7 mg/l

Exposure time: 2 h
Test atmosphere: vapour
Remarks: no mortality

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., calcium salts:

Acute oral toxicity : LD50 (Rat, male and female): 1,080 - 1,630 mg/kg

Method: OECD Test Guideline 401

Remarks: Based on data from similar materials

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

Method: OECD Test Guideline 402

Remarks: Based on data from similar materials

Alcohols, C12-15, ethoxylated:

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg

Method: Expert judgement

Acute inhalation toxicity : LC50 (Rat, male and female): > 1.6 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

Remarks: Based on data from similar materials

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

Remarks: Based on data from similar materials

Skin corrosion/irritation

Causes skin irritation.

Product:

Species : Rabbit

Method : OECD Test Guideline 404

Result : Mild skin irritant

Result : Skin irritation

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Components:

Cyantraniliprole:

Species : Rabbit

Assessment : No skin irritation

Method : OECD Test Guideline 404

Result : No skin irritation

GLP : yes

Fatty acids, soya, Me esters:

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

propane-1,2-diol:

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., calcium salts:

Species : reconstructed human epidermis (RhE)

Method : OECD Test Guideline 439

Result : Skin irritation

Alcohols, C12-15, ethoxylated:

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

Remarks : Based on data from similar materials

Serious eye damage/eye irritation

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

Product:

Species : Rabbit

Result : No eye irritation

Method : OECD Test Guideline 405

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

tion.

Components:

Cyantraniliprole:

Species : Rabbit

Result : slight irritation

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

GLP : yes

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Fatty acids, soya, Me esters:

Species : Rabbit

Result : No eye irritation

Method : OECD Test Guideline 405

propane-1,2-diol:

Species : Rabbit

Result : No eye irritation

Method : OECD Test Guideline 405

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., calcium salts:

Species : Bovine cornea

Result : Irreversible effects on the eye Method : OECD Test Guideline 437

Alcohols, C12-15, ethoxylated:

Result : Irreversible effects on the eye

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

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

Product:

Test Type : Buehler Test Species : Guinea pig

Method : OECD Test Guideline 406

Result : May cause sensitisation by skin contact.

GLP : yes

Test Type : Local lymph node assay (LLNA)

Species : mice

Method : OECD Test Guideline 429

Result : The product is a skin sensitiser, sub-category 1B.

GLP : yes

Components:

Cyantraniliprole:

Test Type : Local lymph node test

Exposure routes : Dermal Species : Mouse

Method : OECD Test Guideline 429

Result : Does not cause skin sensitisation.

GLP : yes

Test Type : Maximisation Test

Exposure routes : Dermal

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Species : Guinea pig

Method : OECD Test Guideline 406

Result : Does not cause skin sensitisation.

GLP : yes

Test Type : Buehler Test Exposure routes : Dermal Species : Guinea pig

Method : OECD Test Guideline 406

Result : Does not cause skin sensitisation.

GLP : yes

Fatty acids, soya, Me esters:

Result : Does not cause skin sensitisation.

propane-1,2-diol:

Test Type : Maximisation Test

Species : Guinea pig Result : negative

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., calcium salts:

Test Type : Maximisation Test

Species : Guinea pig

Method : OECD Test Guideline 406

Result : Does not cause skin sensitisation.
Remarks : Based on data from similar materials

Alcohols, C12-15, ethoxylated:

Test Type : Maximisation Test

Exposure routes : Intradermal Species : Guinea pig

Method : OECD Test Guideline 406
Result : Not a skin sensitizer.

Remarks : Based on data from similar materials

Chronic toxicity

Germ cell mutagenicity

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

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

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

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.

propane-1,2-diol:

Genotoxicity in vitro : Test Type: reverse mutation assay

Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test

Species: Mouse Result: negative

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., calcium salts:

Genotoxicity in vitro : Test Type: reverse mutation assay

Result: negative

Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Bone marrow chromosome aberration

Species: Mouse Application Route: Oral

Method: OECD Test Guideline 475

Result: negative

Remarks: Based on data from similar materials

Germ cell mutagenicity -

Assessment

Weight of evidence does not support classification as a germ

cell mutagen.

Alcohols, C12-15, ethoxylated:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro

Method: OECD Test Guideline 473

Exirel™ Insect Control



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 24.07.2023

 1.1
 02.10.2024
 50000098
 Date of first issue: 24.07.2023

Result: negative

Remarks: Based on data from similar materials

Test Type: Ames test

Method: OECD Test Guideline 471

Result: negative

Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Micronucleus test

Species: Mouse (male and female) Application Route: Intraperitoneal injection Method: OECD Test Guideline 474

Result: negative

Remarks: Based on data from similar materials

Test Type: Bone marrow chromosome aberration

Species: Rat (male and female) Method: OECD Test Guideline 475

Result: negative

Remarks: Based on data from similar materials

Carcinogenicity

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

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-

cinogen

Fatty acids, soya, Me esters:

Carcinogenicity - Assess-

ment

ment

Weight of evidence does not support classification as a car-

cinogen

propane-1,2-diol:

Species : Rat
Application Route : Oral
Exposure time : 2 Years

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Result : negative

Reproductive toxicity

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

Components:

Cyantraniliprole:

Effects on foetal develop-

ment

Test Type: Pre-natal

Species: Rat

Application Route: Oral

General Toxicity Maternal: NOAEL: 1,000 mg/kg bw/day Embryo-foetal 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-foetal 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

propane-1,2-diol:

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

Species: Mouse Application Route: Oral Result: negative

Effects on foetal develop-

ment

Test Type: Embryo-foetal development

Species: Mouse

Application Route: Oral

Method: OECD Test Guideline 414

Result: Animal testing did not show any effects on fertility.

Remarks: Based on data from similar materials

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., calcium salts:

Effects on fertility : Test Type: Two-generation study

General Toxicity - Parent: NOAEL: > 350 mg/kg body weight General Toxicity F1: NOAEL: > 350 mg/kg body weight

Method: OECD Test Guideline 416

Result: negative

Remarks: Based on data from similar materials

Effects on foetal develop-

ment

Test Type: reproductive and developmental toxicity study

Species: Rat

Developmental Toxicity: NOAEL: > 350 mg/kg body weight

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Result: negative

Remarks: Based on data from similar materials

Reproductive toxicity - As-

sessment

Weight of evidence does not support classification for repro-

ductive toxicity

Alcohols, C12-15, ethoxylated:

Effects on fertility : Test Type: Two-generation study

Species: Rat, male and female Application Route: Dermal

General Toxicity - Parent: NOAEL: 250 mg/kg body weight Fertility: NOAEC Mating/Fertility: 250 mg/kg body weight

Method: OECD Test Guideline 416

Result: negative

Remarks: Based on data from similar materials

Effects on foetal develop-

ment

Test Type: reproductive and developmental toxicity study

Species: Rat

Application Route: Dermal

General Toxicity Maternal: NOEL: 100 mg/kg body weight Embryo-foetal toxicity: NOAEL: > 250 mg/kg body weight

Method: OECD Test Guideline 416

Result: negative

Remarks: Based on data from similar materials

STOT - single exposure

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

Product:

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

organ toxicant, single exposure.

Components:

Cyantraniliprole:

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

organ toxicant, single exposure.

STOT - repeated exposure

May cause damage to organs (Liver, Thyroid) through prolonged or repeated exposure.

Components:

Cyantraniliprole:

Target Organs : Liver, Thyroid

Assessment : May cause damage to organs through prolonged or repeated

exposure.

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., calcium salts:

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

organ toxicant, repeated exposure.

ExireI™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Repeated dose toxicity

Components:

Cyantraniliprole:

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

Application Route : Ingestion Exposure time : 1 year

Method : OPPTS 870.4100

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

Application Route : Ingestion Exposure time : 2 years

Method : OPPTS 870.4300

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 d

Method : OPPTS 870.3150

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 d

Method : OPPTS 870.3100

Remarks : Effects are of limited toxicological significance.

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

Application Route : Ingestion Exposure time : 90 d

Method : OPPTS 870.3100

Remarks : Effects are of limited toxicological significance.

propane-1,2-diol:

Species : Rat, male and female

NOAEL : 1,700 mg/kg
Application Route : Oral
Exposure time : 2 Years

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Species : Rat, male and female

NOAEL : 1,000 mg/kg
LOAEL : 160 mg/kg
Application Route : Inhalation
Exposure time : 90 Days

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., calcium salts:

Species : Rat, male and female

NOAEL : 85 mg/kg LOAEL : 145 mg/kg Application Route : Oral Exposure time : 9 mo

Target Organs : Kidney, Liver

Remarks : Based on data from similar materials

Alcohols, C12-15, ethoxylated:

Species : Rat, male and female

NOAEL : 500 mg/kg Application Route : Oral Exposure time : 90d

Method : OECD Test Guideline 408

Remarks : Based on data from similar materials

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.

Neurological effects

Components:

Cyantraniliprole:

No neurotoxicity observed in animal studies

Further information

Product:

Remarks : No data available

Section 12: Ecological information

Ecotoxicity

Product:

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 0.232 mg/l

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

aquatic invertebrates 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)): 3.39

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-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 0.00969 mg/l

Exposure time: 21 d

Toxicity to terrestrial organ-

isms

LD50 (Bumblebees (Bombus terrestris L.)): > 0.47 µg ai/bee

Exposure time: 48 h

End point: Acute oral toxicity

Method: OECD Test Guideline 213

LD50 (Bumblebees (Bombus terrestris L.)): > 100 µg ai/bee

Exposure time: 48 h

End point: Acute contact toxicity Method: OECD Test Guideline 214

Ecotoxicology Assessment

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

Components:

Cyantraniliprole:

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

Exposure time: 96 h

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

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

M-Factor (Acute aquatic tox-

icity)

10

Toxicity to fish (Chronic tox-

icity)

NOEC (Cyprinodon variegatus (sheepshead minnow)): 2.9

mg/

Exposure time: 28 d

NOEC (Oncorhynchus mykiss (rainbow trout)): 0.11 mg/l

Exposure time: 21 d

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 0.00656 mg/l

Exposure time: 21 d

NOEC (Daphnia magna (Water flea)): 0.00969 mg/l

Exposure time: 21 d

NOEC (Daphnia magna (Water flea)): 0.00447 mg/l

Exposure time: 21 d

M-Factor (Chronic aquatic

toxicity)

10

Toxicity to soil dwelling or-

ganisms

LC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg

Exposure time: 14 d

Toxicity to terrestrial organ-

isms

LD50 (Apis mellifera (bees)): > 0.0934 µg/bee

Exposure time: 48 h

End point: Acute contact toxicity

LD50 (Apis mellifera (bees)): > 0.1055 μg/bee

Exposure time: 48 h

End point: Acute oral toxicity

LD50 (Colinus virginianus (Bobwhite quail)): 2,250 mg/kg

Fatty acids, soya, Me esters:

Toxicity to fish : LC50 (Fish): > 1,000 mg/l

Exposure time: 96 h

LC50 (Leuciscus idus (Golden orfe)): > 100 mg/l

Exposure time: 48 h Method: ISO 7346/2

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Crustaceans): 800 - 5,243 mg/l

Exposure time: 48 h

propane-1,2-diol:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 40,613 mg/l

Exposure time: 96 h

Toxicity to daphnia and other : (Mysidopsis bahia (opossum shrimp)): 18,800 mg/l

Exirel™ Insect Control



SDS Number: Date of last issue: 24.07.2023 Version Revision Date: 02.10.2024 50000098 Date of first issue: 24.07.2023 1.1

aquatic invertebrates Exposure time: 96 h

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): 34,100

Exposure time: 48 h

Method: OECD Test Guideline 201

Toxicity to daphnia and other : aquatic invertebrates (Chron-

Toxicity to microorganisms

ic toxicity)

NOEC: 13,020 mg/l Exposure time: 7 d

EC50 (Pseudomonas putida): > 20,000 mg/l

Exposure time: 18 h

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., calcium salts:

LC50 (Fish): 1.7 - 7.7 mg/l Toxicity to fish

Exposure time: 96 h

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

EL50 (Daphnia magna (Water flea)): 5.7 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Remarks: water accommodated fractions (WAF)

Toxicity to algae/aquatic

plants

NOELR (Pseudokirchneriella subcapitata (green algae)): 10

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: water accommodated fractions (WAF)

EL50 (Pseudokirchneriella subcapitata (algae)): > 100 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: water accommodated fractions (WAF)

Toxicity to microorganisms EC50 (activated sludge): 162 mg/l

Exposure time: 3 h

Method: OECD Test Guideline 209

Alcohols, C12-15, ethoxylated:

Toxicity to fish LC50 (Danio rerio (zebra fish)): > 2 mg/l

Exposure time: 96 h

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 2 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)): > 2

mg/l

Exposure time: 72 h

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Toxicity to fish (Chronic tox-

icity)

NOEC (Pimephales promelas (fathead minnow)): 0.11 - 0.28

mg/l

Exposure time: 30 d

Remarks: Based on data from similar materials

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 1.75 mg/l

End point: Immobilization Exposure time: 21 d

Remarks: Based on data from similar materials

NOEC (Daphnia magna (Water flea)): 0.77 mg/l

End point: reproduction Exposure time: 21 d

Remarks: Based on data from similar materials

Toxicity to microorganisms : EC50 (Pseudomonas putida): > 10 g/l

Exposure time: 16.9 h

Remarks: Based on data from similar materials

Toxicity to soil dwelling or-

ganisms

LC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg

Persistence and degradability

Components:

Cyantraniliprole:

Biodegradability : Remarks: Not readily biodegradable.

Fatty acids, soya, Me esters:

Biodegradability : Result: Readily biodegradable.

propane-1,2-diol:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 23.6 % Exposure time: 64 d

Method: OECD Test Guideline 306

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., calcium salts:

Biodegradability : Result: Readily biodegradable.

Method: OECD Test Guideline 301F

Alcohols, C12-15, ethoxylated:

Biodegradability : Result: Readily biodegradable.

Method: OECD Test Guideline 301B

Remarks: Based on data from similar materials

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Bioaccumulative potential

Components:

Cyantraniliprole:

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

Fatty acids, soya, Me esters:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

propane-1,2-diol:

Partition coefficient: n-

octanol/water

log Pow: -1.07

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., calcium salts:

Partition coefficient: n- : log Pow: 4.3 - 5.8 (25 °C)

octanol/water pH: 7

Method: OECD Test Guideline 117

Alcohols, C12-15, ethoxylated:

Bioaccumulation : Species: Pimephales promelas (fathead minnow)

Bioconcentration factor (BCF): 237

Exposure time: 24 d

Remarks: Based on data from similar materials

Partition coefficient: n-

octanol/water

: log Pow: 4.91 - 6.78 (40 °C)

Mobility in soil

Components:

Cyantraniliprole:

Distribution among environ: :

mental compartments

Koc: 241 ml/g, log Koc: 2.38 Remarks: Mobile in soils

Other adverse effects

Product:

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

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

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.

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

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)

: 964

964

Environmentally hazardous : yes

IMDG-Code

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Cyantraniliprole)

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

Remarks : Environmentally hazardous substances/Marine Pollutants in

single or combination packaging containing a net quantity per single or inner packaging of 5 kg or less for solids, or having a net quantity per single or inner packaging of 5 L or less for liquids may be transported as non-dangerous goods as provided in special provision A197 of the IATA and section

2.10.2.7 of IMDG code.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

NZS 5433

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Cyantraniliprole)

Class : 9
Packing group : III
Labels : 9
Hazchem Code : 3Z
Marine pollutant : yes

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.

Section 15: Regulatory information

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

HSNO Approval Number

HSR100857

ACVM Number: P008572

Tolerable Exposure Limits (TEL)

Not applicable

Environmental Exposure Limits (EEL)

Not applicable

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

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

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

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.

Cyantraniliprole

Fatty acids, C6-10, Me esters

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

Section 16: Other information

Revision Date : 02.10.2024

Date format : dd.mm.yyyy

Full text of other abbreviations

NZ OEL : New Zealand. Workplace Exposure Standards for Atmospher-

ic Contaminants

NZ OEL / WES-TWA : Workplace Exposure Standard - Time Weighted average

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;

Exirel™ Insect Control



Version Revision Date: SDS Number: Date of last issue: 24.07.2023 1.1 02.10.2024 50000098 Date of first issue: 24.07.2023

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

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