

# SAFETY DATA SHEET



## Steward® eVo insecticide

Version 1.2      Revision Date: 02.08.2023      SDS Number: 50000122      Date of last issue: -  
Date of first issue: 03.01.2018

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### Section 1: Identification

Product name : Steward® eVo insecticide

#### 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 : IRD number: 101-200-019  
6 Clayton Street, Newmarket  
1023 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 (Ixm)

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

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### Section 2: Hazard identification

#### GHS Classification

Acute toxicity (Oral) : Acute Tox.4

Skin sensitisation : Skin Sens.1

Specific target organ toxicity - repeated exposure : STOT RE1 (Blood, Nervous system)

Hazardous to terrestrial vertebrates

Hazardous to terrestrial invertebrates

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### GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: H302 Harmful if swallowed.  
H317 May cause an allergic skin reaction.  
H372 Causes damage to organs (Blood, Nervous system) through prolonged or repeated exposure.  
H433 Harmful to terrestrial vertebrates.  
H443 Harmful to terrestrial invertebrates.

Precautionary statements

: **Prevention:**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P260 Do not breathe mist or vapours.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

**Response:**

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.  
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 advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**Storage:**

P403 Store in a well-ventilated place.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

### Other hazards which do not result in classification

None known.

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### Section 3: Composition/information on ingredients

Substance / Mixture : Mixture

### Components

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Chemical name	CAS-No.	Concentration (% w/w)
indoxacarb (ISO)	173584-44-6	15.84
calcium dodecylbenzenesulphonate	26264-06-2	>= 3 -< 10
Fatty acids, soya, Me esters	68919-53-9	>= 1 -< 10
2-ethylhexan-1-ol	104-76-7	>= 1 -< 10
Fatty acids, C6-10, Me esters	68937-83-7	>= 1 -< 10

### 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 : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : Take off all contaminated clothing immediately.  
Wash off with soap and water.  
If symptoms persist, call a physician.  
Wash contaminated clothing before re-use.
- In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Induce vomiting immediately and call a physician.  
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.  
Take victim immediately to hospital.
- Most important symptoms and effects, both acute and delayed : Exposure may result in loss of coordination and tremors.  
Harmful if swallowed.  
May cause an allergic skin reaction.  
May cause damage to organs.  
Causes 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.

### Section 5: Fire-fighting measures

- Suitable extinguishing media : Dry chemical  
Carbon dioxide (CO<sub>2</sub>)  
Water spray  
Regular foam

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- 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 products : Fire may produce irritating, corrosive and/or toxic gases.  
Chlorinated compounds  
Fluorinated compounds  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon oxides  
Hydrogen cyanide  
Hydrogen chloride  
Hydrogen fluoride  
Sulphur oxides
- Specific extinguishing methods : Remove undamaged containers from fire area if it is safe to do so.  
Use a water spray to cool fully closed containers.  
Use extinguishing measures that are appropriate to local circumstances 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
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### Section 6: Accidental release measures

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Use personal protective equipment.  
If it can be safely done, stop the leak.  
Do not touch or walk through the spilled material.  
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.  
For disposal considerations see section 13.
- 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-

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bent material.  
Pick up and transfer to properly labelled containers.  
Keep in suitable, closed containers for disposal.

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**Section 7: Handling and storage**

- Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material. Keep away from open flames, hot surfaces and sources of ignition.
- 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 application area.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Dispose of rinse water in accordance with local and national regulations.
- Hygiene measures : 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.
- Conditions for safe storage : Keep tightly closed in a dry, cool and well-ventilated place.  
Observe label precautions.  
Keep container closed when not in use.  
Keep locked up or in an area accessible only to qualified or authorised persons.  
Keep in properly labelled containers.  
No smoking.  
Electrical installations / working materials must comply with the technological safety standards.
- Recommended storage temperature : > 0 °C
- Further information on storage stability : Do not freeze.

No decomposition if stored and applied as directed.

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**Section 8: Exposure controls/personal protection**
**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
2-ethylhexan-1-ol	104-76-7	TWA	5 ppm	ACGIH

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### Personal protective equipment

- Respiratory protection : In case of mist, spray or aerosol exposure wear suitable personal 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 instructions.  
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 instructions for use.
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### Section 9: Physical and chemical properties

- Physical state : liquid
- Colour : amber
- Odour : faint burn smell
- Odour Threshold : No data available
- pH : 6.6 (20 - 25 °C)  
Concentration: 10 g/l
- Melting point/range : No data available
- Boiling point/boiling range : No data available
- Flash point : 69 °C

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Evaporation rate : No data available

Flammability (liquids) : Not highly flammable

Self-ignition : 255 °C

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : No data available

Solubility(ies)  
Water solubility : No data available

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Viscosity  
Viscosity, dynamic : 5.6 mPa,s ( 25 °C)

Viscosity, kinematic : No data available

Explosive properties : Not explosive

Oxidizing properties : Non-oxidizing

Molecular weight : Not applicable

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### 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 reactions : Vapours may form explosive mixture with air.  
No decomposition if stored and applied as directed.

Conditions to avoid : Avoid extreme temperatures  
Avoid formation of aerosol.  
Heat, flames and sparks.

Incompatible materials : Avoid strong acids, bases, and oxidizers

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Hazardous decomposition products : Stable under recommended storage conditions.

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**Section 11: Toxicological information**

Exposure routes : Skin contact

**Acute toxicity**

Harmful if swallowed.

**Product:**

Acute oral toxicity : LD50 (Rat, female): 977 mg/kg  
Method: OECD Test Guideline 425  
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : LC50 (Rat): > 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 inhalation toxicity

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 402  
GLP: yes

**Components:****indoxacarb (ISO):**

Acute oral toxicity : LD50 (Rat, female): 179 mg/kg  
Method: OECD Test Guideline 401  
Target Organs: Nervous system  
Symptoms: hypoactivity, Tremors, ataxia, Fatality  
GLP: yes

LD50 (Rat): 407 mg/kg

Acute inhalation toxicity : LC50 (Rat): 4.2 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

LC50 (Rat): > 5.5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 402  
GLP: yes  
Assessment: The substance or mixture has no acute dermal toxicity



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### **calcium dodecylbenzenesulphonate:**

Acute oral toxicity : LD50 (Rat, male and female): 1,300 mg/kg  
Remarks: Based on data from similar materials

Acute inhalation toxicity : Remarks: Not classified

Acute dermal toxicity : LD50 (Rat, male and female): > 2000 milligram per kilogram  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: Based on data from similar materials

### **Fatty acids, soya, Me esters:**

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

Acute dermal toxicity : LD50 (Rabbit): 2,000 - 20,000 mg/kg

### **2-ethylhexan-1-ol:**

Acute oral toxicity : LD50 (Rat, male): 2,047 mg/kg

Acute inhalation toxicity : LC50 (Rat): 4.3 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat, male and female): > 3,000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

### **Fatty acids, C6-10, Me esters:**

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

### **Skin corrosion/irritation**

Not classified based on available information.

### **Product:**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : Mild skin irritation

Remarks : May cause skin irritation and/or dermatitis.

### **Components:**

#### **indoxacarb (ISO):**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : No skin irritation  
GLP : yes

Remarks : May cause skin irritation and/or dermatitis.

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### calcium dodecylbenzenesulphonate:

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : Skin irritation

### Fatty acids, soya, Me esters:

Result : slight irritation

### 2-ethylhexan-1-ol:

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : Skin irritation

### Fatty acids, C6-10, Me esters:

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : Skin irritation

### Serious eye damage/eye irritation

Not classified based on available information.

### Product:

Species : Rabbit  
Result : No eye irritation  
Assessment : No eye irritation  
Method : OECD Test Guideline 405  
GLP : yes

Remarks : Vapours may cause irritation to the eyes, respiratory system and the skin.

### Components:

#### indoxacarb (ISO):

Species : Rabbit  
Result : No eye irritation  
Assessment : No eye irritation  
Method : OECD Test Guideline 405  
GLP : yes

Remarks : Product dust may be irritating to eyes, skin and respiratory system.

#### calcium dodecylbenzenesulphonate:

Species : Rabbit  
Result : Irreversible effects on the eye  
Method : OECD Test Guideline 405  
Remarks : Based on data from similar materials

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Species : Rabbit  
Result : Irreversible effects on the eye  
Method : OECD Test Guideline 405

### Fatty acids, soya, Me esters:

Result : Irritation to eyes, reversing within 7 days

### 2-ethylhexan-1-ol:

Species : Rabbit  
Result : Irritation to eyes, reversing within 21 days  
Method : OECD Test Guideline 405

### Fatty acids, C6-10, Me esters:

Species : Rabbit  
Result : slight irritation  
Method : OECD Test Guideline 405

### Respiratory or skin sensitisation

#### Skin sensitisation

May cause an allergic skin reaction.

#### Respiratory sensitisation

Not classified based on available information.

#### Product:

Result : May cause sensitisation by skin contact.

#### Components:

##### indoxacarb (ISO):

Species : Guinea pig  
Result : May cause sensitisation by skin contact.

Test Type : Buehler Test  
Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : Not a skin sensitizer.  
GLP : yes

Test Type : Maximisation Test  
Species : Guinea pig  
Assessment : May cause sensitisation by skin contact.  
Method : US EPA Test Guideline OPPTS 870.2600  
Result : May cause sensitisation by skin contact.  
GLP : yes

Remarks : Causes sensitisation.

##### calcium dodecylbenzenesulphonate:

Test Type : Maximisation Test

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Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : Not a skin sensitizer.  
Remarks : Based on data from similar materials

### **Fatty acids, soya, Me esters:**

Result : Does not cause skin sensitisation.

### **Fatty acids, C6-10, Me esters:**

Exposure routes : Skin contact  
Species : Guinea pig  
Result : Not a skin sensitizer.

### **Chronic toxicity**

#### **Germ cell mutagenicity**

Not classified based on available information.

#### **Product:**

Germ cell mutagenicity - Assessment : Test on bacterial cultures did not show mutagenic effects.,  
Animal testing did not show any mutagenic effects.

#### **Components:**

##### **indoxacarb (ISO):**

Genotoxicity in vitro : Test Type: reverse mutation assay  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse  
Method: OECD Test Guideline 474  
Result: negative

Germ cell mutagenicity - Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

##### **calcium dodecylbenzenesulphonate:**

Genotoxicity in vitro : Test Type: reverse mutation assay  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: chromosome aberration assay  
Species: Rat (male and female)  
Application Route: Oral  
Exposure time: 90 d  
Result: negative  
Remarks: Based on data from similar materials

Germ cell mutagenicity - : Weight of evidence does not support classification as a germ

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Assessment cell mutagen.

### 2-ethylhexan-1-ol:

Genotoxicity in vitro : Test Type: reverse mutation assay  
Method: OECD Test Guideline 471  
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse  
Application Route: Intraperitoneal injection  
Result: negative

### Fatty acids, C6-10, Me esters:

Genotoxicity in vitro : Test Type: Ames test  
Result: negative

Germ cell mutagenicity - Assessment : In vitro tests did not show mutagenic effects

### Carcinogenicity

Not classified based on available information.

#### Product:

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

#### Components:

### indoxacarb (ISO):

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

### calcium dodecylbenzenesulphonate:

Species : Rat, male and female  
Application Route : Oral  
Exposure time : 720 d  
NOAEL : 250 mg/kg body weight  
Result : negative  
Remarks : Based on data from similar materials

Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen

### Fatty acids, soya, Me esters:

Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen

### 2-ethylhexan-1-ol:

Species : Rat  
Application Route : Oral

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Exposure time                   : 24 month(s)  
Result                             : negative

### Reproductive toxicity

Not classified based on available information.

#### Product:

Reproductive toxicity - Assessment                   : Weight of evidence does not support classification for reproductive toxicity

#### Components:

##### **indoxacarb (ISO):**

Reproductive toxicity - Assessment                   : No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments. Animal testing did not show any effects on foetal development.

##### **calcium dodecylbenzenesulphonate:**

Effects on fertility                   : Test Type: Fertility/early embryonic development  
Species: Rat, male and female  
Application Route: Ingestion  
General Toxicity - Parent: NOAEL: 400 mg/kg body weight  
Method: OECD Test Guideline 422  
Result: negative

Effects on foetal development                   : Test Type: reproductive and developmental toxicity study  
Species: Rat  
Application Route: Ingestion  
General Toxicity Maternal: NOAEL: 300 mg/kg body weight  
Developmental Toxicity: NOAEL: 600 mg/kg body weight  
Method: OECD Test Guideline 422  
Result: negative

Reproductive toxicity - Assessment                   : Weight of evidence does not support classification for reproductive toxicity

##### **2-ethylhexan-1-ol:**

Effects on foetal development                   : Test Type: Embryo-foetal development  
Species: Mouse  
Application Route: Oral  
Method: OECD Test Guideline 414  
Result: negative

### STOT - single exposure

May cause damage to organs (Central nervous system).

#### Product:

Assessment                             : The substance or mixture is not classified as specific target organ toxicant, single exposure.

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**Components:****indoxacarb (ISO):**

Target Organs : Central nervous system  
 Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 2.

**2-ethylhexan-1-ol:**

Assessment : May cause respiratory irritation.

**STOT - repeated exposure**

Causes damage to organs (Blood, Nervous system) through prolonged or repeated exposure.

**Components:****indoxacarb (ISO):**

Target Organs : Blood, Nervous system  
 Assessment : Causes damage to organs through prolonged or repeated exposure.

**Repeated dose toxicity****Components:****indoxacarb (ISO):**

Species : Rat, female  
 NOAEL : 3.28 mg/kg  
 LOAEL : 7.53 mg/kg  
 Application Route : Oral  
 Exposure time : 90 d  
 Method : OECD Test Guideline 408  
 GLP : yes  
 Target Organs : Blood

**calcium dodecylbenzenesulphonate:**

Species : Rat, male and female  
 NOAEL : 85 mg/kg  
 LOAEL : 145 mg/kg  
 Application Route : Oral  
 Exposure time : 9 Months  
 Remarks : Based on data from similar materials

Species : Rat, male  
 NOAEL : 286 mg/kg  
 Application Route : Skin contact  
 Exposure time : 15 Days  
 Remarks : Based on data from similar materials

Species : Rat, male and female  
 NOAEL : 100 mg/kg bw/day  
 LOAEL : 200 mg/kg bw/day  
 Application Route : Oral - gavage  
 Exposure time : 28 - 54 days

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Method : OECD Test Guideline 422  
Remarks : Based on data from similar materials

### 2-ethylhexan-1-ol:

Species : Rat  
          : 250 mg/kg  
Application Route : Oral  
Exposure time : 13 weeks  
Method : OECD Test Guideline 408

### Aspiration toxicity

Not classified based on available information.

### Product:

No aspiration toxicity classification

### Further information

### Product:

Remarks : No data available

### Components:

### indoxacarb (ISO):

Remarks : No data available

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## Section 12: Ecological information

### Ecotoxicity

### Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 7.0 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203  
GLP: yes

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 1.67 mg/l  
aquatic invertebrates : Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 16  
plants : mg/l  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes



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**Ecotoxicology Assessment**

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

**Components:****indoxacarb (ISO):**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.65 mg/l  
 Exposure time: 96 h  
 Test Type: flow-through test  
 Method: OECD Test Guideline 203  
 GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.6 mg/l  
 Exposure time: 48 h

M-Factor (Acute aquatic toxicity) : 1

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 0.15 mg/l  
 Exposure time: 90 d  
 Test Type: Early Life-Stage  
 Method: OECD Test Guideline 210  
 GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.09 mg/l  
 Exposure time: 21 d  
 Method: OECD Test Guideline 202  
 GLP: yes

M-Factor (Chronic aquatic toxicity) : 1

Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): > 1,250 mg/kg  
 Exposure time: 14 d  
 Method: OECD Test Guideline 207  
 GLP: yes

Toxicity to terrestrial organisms : LD50 (Apis mellifera (bees)): 0.216 µg/bee  
 End point: Acute oral toxicity

LD50 (Colinus virginianus (Bobwhite quail)): 152 mg/kg

LD50 (Apis mellifera (bees)): 0.094 µg/bee  
 End point: Acute contact toxicity

LD50 (Colinus virginianus (Bobwhite quail)): 98 mg/kg

**calcium dodecylbenzenesulphonate:**

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 10 mg/l  
 Exposure time: 96 h  
 Method: OECD Test Guideline 203  
 Remarks: Based on data from similar materials

LC50 (Pimephales promelas (fathead minnow)): 4.6 mg/l

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- Exposure time: 96 h  
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 3.5 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
Remarks: Based on data from similar materials
- Toxicity to algae/aquatic plants : NOEC (Pseudokirchneriella subcapitata (green algae)): 7.9 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials
- EC50 (Pseudokirchneriella subcapitata (green algae)): 65.4 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 (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 1.65 mg/l  
Exposure time: 21 d  
Remarks: Based on data from similar materials
- NOEC (Daphnia magna (Water flea)): 1.18 mg/l  
Exposure time: 21 d  
Remarks: Based on data from similar materials
- Toxicity to microorganisms : EC50 (activated sludge): 500 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209
- Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): 1,000 mg/kg  
Exposure time: 14 d  
Method: OECD Test Guideline 207
- Toxicity to terrestrial organisms : LD50 (Colinus virginianus (Bobwhite quail)): 1,356 mg/kg  
Exposure time: 14 d  
Method: OECD Test Guideline 223
- 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
- 2-ethylhexan-1-ol:**
- Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 17.1 - 28.2 mg/l  
Exposure time: 96 h

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- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 39 mg/l  
Exposure time: 48 h
- Toxicity to algae/aquatic plants : EC10 (Desmodesmus subspicatus (green algae)): 3.2 mg/l  
Exposure time: 72 h
- EC50 (Desmodesmus subspicatus (green algae)): 11.5 mg/l  
Exposure time: 72 h
- Toxicity to microorganisms : EC50 (Anabaena flos-aquae (cyanobacterium)): 16.6 mg/l  
Exposure time: 72 h
- Fatty acids, C6-10, Me esters:**
- Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 95 mg/l  
Exposure time: 48 h  
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Gammarus fasciatus (freshwater shrimp)): 14.7 mg/l  
Remarks: Based on data from similar materials

### Persistence and degradability

#### Components:

##### **indoxacarb (ISO):**

Biodegradability : Result: Not readily biodegradable.

##### **calcium dodecylbenzenesulphonate:**

Biodegradability : Result: Readily biodegradable.  
Method: OECD Test Guideline 301E

##### **Fatty acids, soya, Me esters:**

Biodegradability : Result: Readily biodegradable.

##### **2-ethylhexan-1-ol:**

Biodegradability : Result: Readily biodegradable.

##### **Fatty acids, C6-10, Me esters:**

Biodegradability : Result: Readily biodegradable.

### Bioaccumulative potential

#### Product:

Bioaccumulation : Remarks: Does not bioaccumulate.  
Estimation based on data obtained on active ingredient.

Remarks: No data available

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**Components:****indoxacarb (ISO):**

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)  
 Bioconcentration factor (BCF): 77.3  
 Exposure time: 21 d  
 Method: OECD Test Guideline 305

Partition coefficient: n-octanol/water : log Pow: 0.57 (20 °C)

**calcium dodecylbenzenesulphonate:**

Bioaccumulation : Species: Fish  
 Bioconcentration factor (BCF): 70.79  
 Method: QSAR

Partition coefficient: n-octanol/water : log Pow: 4.77 (25 °C)

**Fatty acids, soya, Me esters:**

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

**2-ethylhexan-1-ol:**

Partition coefficient: n-octanol/water : log Pow: 2.9 (25 °C)

**Mobility in soil****Components:****indoxacarb (ISO):**

Distribution among environmental compartments : Koc: 4483 ml/g, log Koc: 3.65  
 Remarks: Low mobility in soil

**Other adverse effects****Product:**

Additional ecological information : See product label for additional application instructions relating to environmental precautions.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
 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-

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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 handling site for recycling or disposal.  
Dispose of contents/ container to an approved waste disposal plant.

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### Section 14: Transport information

#### International Regulations

##### UNRTDG

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Indoxacarb)  
Class : 9  
Packing group : III  
Labels : 9

##### IATA-DGR

UN/ID No. : UN 3082  
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.  
(Indoxacarb)  
Class : 9  
Packing group : III  
Labels : Miscellaneous  
Packing instruction (cargo aircraft) : 964  
Packing instruction (passenger aircraft) : 964  
Environmentally hazardous : yes

##### IMDG-Code

UN number : UN 3082  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Indoxacarb)  
Class : 9  
Packing group : III  
Labels : 9  
EmS Code : F-A, S-F  
Marine pollutant : yes

#### 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

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Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Indoxacarb)  
Class : 9  
Packing group : III  
Labels : 9  
Hazchem Code : 3Z

### 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

HSR000583

ACVM Number: P009271

### The components 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.  
  
METHYL (S)-7-CHLORO-2,3,4A,5-TETRAHYDRO-2-  
{(METHOXYCARBONYL)[4-  
(TRIFLUOROMETHOXY)PHENYL]CARBAMOYL}INDENO[1,  
2-E][1,3,4]OXADIAZINE-4A-CARBOXYLATE  
Fatty acids, C8-10, Me esters  
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

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### Section 16: Other information

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#### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

ACGIH / TWA : 8-hour, time-weighted average

AllC - 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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