

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

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**Section 1: Identification**

Product name : Starycide® Insect Growth Regulator

Product code : Article/SKU: 79101589 UVP: 79037848 Specification: 102000017278

**Manufacturer or supplier's details**

Company : Garrards (NZ) Ltd.

Address : Unit 4/27B Cain Rd  
Penrose, New Zealand 8140

Telephone : 0800 10 22 76

Emergency telephone number : +64 9801 0034  
0800 425 459

**Recommended use of the chemical and restrictions on use**

Recommended use : Insecticide

Restrictions on use : Not applicable

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**Section 2: Hazard identification****GHS Classification**

Skin sensitisation : Category 1

Carcinogenicity : Category 1

Hazardous to the aquatic environment - acute hazard : Category 1

Hazardous to the aquatic environment - chronic hazard : Category 1

**GHS label elements**

Hazard pictograms : 

Signal word : Danger

Hazard statements : H317 May cause an allergic skin reaction.

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

H350 May cause cancer.  
H410 Very toxic to aquatic life with long lasting effects.

## Precautionary statements

**Prevention:**

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P261 Avoid breathing mist or vapours.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P302 + P352 IF ON SKIN: Wash with plenty of water.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P391 Collect spillage.

**Storage:**

P405 Store locked up.

**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)
Glycerine	56-81-5	$\geq 10$ -< 20
Kaolin	1332-58-7	$\geq 1$ -< 10
Triflumuron	64628-44-0	$\geq 2.5$ -< 10
Silica gel, precipitated, crystalline free	112926-00-8	$\geq 1$ -< 10
Arylethylphenylpolyglykol ether	104376-75-2	$\geq 1$ -< 2.5
(Benzyloxy)methanol	14548-60-8	$\geq 0.1$ -< 1
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	55965-84-9	$\geq 0.0015$ -< 0.0025

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

**Alternative CAS Numbers for some regions**

Chemical name	Alternative CAS Number(s)
Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	2682-20-4, 26172-55-4

**Section 4: First-aid measures**

General advice	: In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.
If inhaled	: If inhaled, remove to fresh air. Get medical attention.
In case of skin contact	: In case of contact, immediately flush skin with soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
In case of eye contact	: Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.
If swallowed	: If swallowed, DO NOT induce vomiting. Get medical attention. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	: No symptoms known or expected. May cause an allergic skin reaction. May cause cancer.
Protection of first-aiders	: First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
Notes to physician	: There is no specific antidote available. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. Treat symptomatically.

**Section 5: Fire-fighting measures**

Suitable extinguishing media	: Water spray Alcohol-resistant foam Carbon dioxide (CO2)
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**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

---

Dry chemical

Unsuitable extinguishing media	:	None known.
Specific hazards during fire-fighting	:	Exposure to combustion products may be a hazard to health.
Hazardous combustion products	:	Carbon oxides Silicon oxides Metal oxides
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
Hazchem Code	:	3Z

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**Section 6: Accidental release measures**

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).
Environmental precautions	:	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	:	Soak up with inert absorbent material. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

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**Section 7: Handling and storage**

# Starycide® Insect Growth Regulator

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
- Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.
- Advice on safe handling : Do not get on skin or clothing.  
Avoid breathing mist or vapours.  
Do not swallow.  
Avoid contact with eyes.  
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment  
Keep container tightly closed.  
Take care to prevent spills, waste and minimize release to the environment.
- Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.  
When using do not eat, drink or smoke.  
Contaminated work clothing should not be allowed out of the workplace.  
Wash contaminated clothing before re-use.
- Conditions for safe storage : Keep in properly labelled containers.  
Store locked up.  
Keep tightly closed.  
Store in accordance with the particular national regulations.
- Materials to avoid : Do not store with the following product types:  
Strong oxidizing agents

## Section 8: Exposure controls/personal protection

### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Glycerine	56-81-5	WES-TWA (Mist)	10 mg/m <sup>3</sup>	NZ OEL
Kaolin	1332-58-7	WES-TWA	10 mg/m <sup>3</sup>	NZ OEL
		WES-TWA (Respirable dust)	2 mg/m <sup>3</sup>	NZ OEL
		TWA (Respirable particulate matter)	2 mg/m <sup>3</sup>	ACGIH
Silica gel, precipitated, crystal-	112926-00-8	WES-TWA	10 mg/m <sup>3</sup>	NZ OEL

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

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**Engineering measures** : Minimize workplace exposure concentrations.  
If sufficient ventilation is unavailable, use with local exhaust ventilation.

**Personal protective equipment**

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Combined particulates, inorganic gas/vapour and organic vapour type

**Hand protection**

Material	: Nitrile rubber
Break through time	: > 480 min
Glove thickness	: 0.4 mm
Protective index	: Class 6

Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection : Wear the following personal protective equipment:  
Safety glasses

Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.  
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

**Section 9: Physical and chemical properties**

Appearance : suspension

Colour : brown

Odour : characteristic, very faint

Odour Threshold : No data available

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

---

pH	:	6 - 8 (23 °C) Concentration: 100 %
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	boils before flash
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	No data available
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	:	ca. 1.12 g/cm <sup>3</sup> (20 °C)
Solubility(ies) Water solubility	:	dispersible
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity Viscosity, dynamic	:	200 - 340 mPa.s ( 20 °C)
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

---

Particle size : Not applicable

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**Section 10: Stability and reactivity**

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Can react with strong oxidizing agents.

Conditions to avoid : None known.

Incompatible materials : Oxidizing agents

Hazardous decomposition products : No hazardous decomposition products are known.

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**Section 11: Toxicological information**

Exposure routes : Inhalation  
Skin contact  
Ingestion  
Eye contact

**Acute toxicity**

Not classified based on available information.

**Components:****Glycerine:**

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

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

**Kaolin:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 2.07 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity  
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: Based on data from similar materials



**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

---

**Triflumuron:**

Acute oral toxicity	: LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	: LC50 (Rat): > 5.03 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	: LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 402

**Silica gel, precipitated, crystalline free:**

Acute oral toxicity	: LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 401 Remarks: Based on data from similar materials
Acute inhalation toxicity	: LC50 (Rat): > 0.69 mg/l Exposure time: 4 h Test atmosphere: dust/mist Remarks: Based on data from similar materials
Acute dermal toxicity	: LD50 (Rabbit): > 5,000 mg/kg Remarks: Based on data from similar materials

**Arylethylphenylpolyglykol ether:**

Acute oral toxicity	: LD50 (Rat): > 2,000 mg/kg Method: OECD Test Guideline 401
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**(Benzyloxy)methanol:**

Acute oral toxicity	: LD50 (Rat, female): 812 mg/kg
Acute inhalation toxicity	: LC50 (Rat): > 0.502 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	: LD50 (Rat, male): 1,429 mg/kg

Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1):

Acute oral toxicity	: LD50 (Rat): 64 mg/kg
Acute inhalation toxicity	: LC50 (Rat): 0.171 mg/l Exposure time: 4 h Test atmosphere: dust/mist Assessment: Corrosive to the respiratory tract.

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

---

Acute dermal toxicity : LD50 (Rabbit): 87.12 mg/kg

**Skin corrosion/irritation**

Not classified based on available information.

**Components:****Glycerine:**

Species : Rabbit  
Result : No skin irritation

**Kaolin:**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : No skin irritation  
Remarks : Based on data from similar materials

**Triflumuron:**

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

**Silica gel, precipitated, crystalline free:**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : No skin irritation  
Remarks : Based on data from similar materials

**(Benzyloxy)methanol:**

Species : Rabbit  
Result : Skin irritation

Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1):

Species : Rabbit  
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.

**Components:****Glycerine:**

Species : Rabbit  
Result : No eye irritation

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

---

**Kaolin:**

Species	:	Rabbit
Result	:	No eye irritation
Remarks	:	Based on data from similar materials

**Triflumuron:**

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

**Silica gel, precipitated, crystalline free:**

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405
Remarks	:	Based on data from similar materials

**(Benzyloxy)methanol:**

Species	:	Rabbit
Result	:	Irreversible effects on the eye

Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1):

Result	:	Irreversible effects on the eye
Remarks	:	Based on skin corrosivity.

**Respiratory or skin sensitisation****Skin sensitisation**

May cause an allergic skin reaction.

**Respiratory sensitisation**

Not classified based on available information.

**Components:****Triflumuron:**

Test Type	:	Maximisation Test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	negative

**(Benzyloxy)methanol:**

Test Type	:	Magnusson-Kligman-Test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Result	:	positive

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

---

Assessment : Probability or evidence of low to moderate skin sensitisation rate in humans

Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1):

Test Type	: Buehler Test
Exposure routes	: Skin contact
Species	: Guinea pig
Result	: positive

Assessment : Probability or evidence of high skin sensitisation rate in humans

**Chronic toxicity****Germ cell mutagenicity**

Not classified based on available information.

**Components:****Glycerine:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Result: negative

Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative

Test Type: Chromosome aberration test in vitro  
Result: negative

Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)  
Result: negative

**Triflumuron:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative

Test Type: In vitro mammalian cell gene mutation test  
Result: negative

Test Type: Chromosome aberration test in vitro  
Method: OECD Test Guideline 473  
Result: negative

**Silica gel, precipitated, crystalline free:**

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro  
Result: negative  
Remarks: Based on data from similar materials

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

---

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)  
Species: Rat  
Application Route: Ingestion  
Result: negative  
Remarks: Based on data from similar materials

**(Benzyloxy)methanol:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: positive

Test Type: In vitro mammalian cell gene mutation test  
Result: positive  
Remarks: Based on data from similar materials

Test Type: Chromosome aberration test in vitro  
Result: positive  
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)  
Species: Rat  
Application Route: inhalation (vapour)  
Result: positive  
Remarks: Based on data from similar materials

Germ cell mutagenicity - Assessment : Positive result(s) from in vivo non-mammalian somatic cell mutagenicity tests, supported by positive results from in vitro mutagenicity assays.

**Carcinogenicity**

May cause cancer.

**Components:****Glycerine:**

Species : Rat  
Application Route : Ingestion  
Exposure time : 2 Years  
Result : negative

**Triflumuron:**

Species : Rat  
Application Route : Ingestion  
Exposure time : 2 Years  
Result : negative

**Silica gel, precipitated, crystalline free:**

Species : Rat  
Application Route : Ingestion  
Exposure time : 103 weeks

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

---

Result : negative  
Remarks : Based on data from similar materials

**(Benzyloxy)methanol:**

Species : Rat  
Application Route : Inhalation  
Exposure time : 28 Months  
Result : positive  
Remarks : Based on data from similar materials

Carcinogenicity - Assessment : Sufficient evidence of carcinogenicity in animal experiments

**Reproductive toxicity**

Not classified based on available information.

**Components:****Glycerine:**

Effects on fertility : Test Type: Two-generation reproduction toxicity study  
Species: Rat  
Application Route: Ingestion  
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rat  
Application Route: Ingestion  
Result: negative

**Triflumuron:**

Effects on fertility : Test Type: Three-generation reproduction toxicity study  
Species: Rat  
Application Route: Ingestion  
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rabbit  
Application Route: Ingestion  
Result: negative

**Silica gel, precipitated, crystalline free:**

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rat  
Application Route: Ingestion  
Result: negative  
Remarks: Based on data from similar materials

**(Benzyloxy)methanol:**

Effects on foetal development : Test Type: Embryo-foetal development

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

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Species: Mouse  
Application Route: Ingestion  
Result: negative  
Remarks: Based on data from similar materials

**STOT - single exposure**

Not classified based on available information.

**STOT - repeated exposure**

Not classified based on available information.

**Components:****Triflumuron:**

Assessment : No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

**(Benzyloxy)methanol:**

Target Organs : Respiratory Tract  
Assessment : Shown to produce significant health effects in animals at concentrations of >0.02 to 0.2 mg/l/6h/d.

**Repeated dose toxicity****Components:****Glycerine:**

Species : Rat  
NOAEL : 0.167 mg/l  
LOAEL : 0.622 mg/l  
Application Route : inhalation (dust/mist/fume)  
Exposure time : 13 Weeks

Species : Rat  
NOAEL : 8,000 - 10,000 mg/kg  
Application Route : Ingestion  
Exposure time : 2 yr

Species : Rabbit  
NOAEL : 5,040 mg/kg  
Application Route : Skin contact  
Exposure time : 45 Weeks

**Triflumuron:**

Species : Dog  
LOAEL : 13.95 mg/kg  
Application Route : Ingestion  
Exposure time : 12 Months

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

---

**Silica gel, precipitated, crystalline free:**

Species	: Rat
NOAEL	: > 4,500 mg/kg
Application Route	: Ingestion
Exposure time	: 90 Days
Remarks	: Based on data from similar materials

**(Benzyloxy)methanol:**

Species	: Rat
LOAEL	: > 0.02 - 0.2 mg/l
Application Route	: inhalation (dust/mist/fume)
Exposure time	: 90 Days
Remarks	: Based on data from similar materials

**Aspiration toxicity**

Not classified based on available information.

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**Section 12: Ecological information****Ecotoxicity****Product:**

Toxicity to fish	: LC50 ( <i>Lepomis macrochirus</i> (Bluegill sunfish)): 183 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 ( <i>Daphnia magna</i> (Water flea)): 0.00032 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	: IC50 ( <i>Desmodesmus subspicatus</i> (green algae)): 446 mg/l Exposure time: 72 h Test Type: Growth inhibition

**Components:****Glycerine:**

Toxicity to fish	: LC50 ( <i>Oncorhynchus mykiss</i> (rainbow trout)): 54,000 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 ( <i>Daphnia magna</i> (Water flea)): 1,955 mg/l Exposure time: 48 h
Toxicity to microorganisms	: NOEC ( <i>Pseudomonas putida</i> ): > 10,000 mg/l Exposure time: 16 h Method: DIN 38 412 Part 8

**Kaolin:**

Toxicity to fish (Chronic toxicity)	: NOELR ( <i>Oncorhynchus mykiss</i> (rainbow trout)): > 100 mg/l Exposure time: 30 d
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# Starycide® Insect Growth Regulator

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

---

## Triflumuron:

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|--|---|--|
| Toxicity to fish   | : | LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.0242 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203<br>Remarks: No toxicity at the limit of solubility   |
| Toxicity to daphnia and other aquatic invertebrates                    | : | EC50 (Daphnia magna (Water flea)): 0.0016 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202   |
| Toxicity to algae/aquatic plants                                       | : | ErC50 (Desmodesmus subspicatus (green algae)): > 25 µg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br>Remarks: No toxicity at the limit of solubility<br><br>NOEC (Desmodesmus subspicatus (green algae)): >= 25 µg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br>Remarks: No toxicity at the limit of solubility |
| M-Factor (Acute aquatic toxicity)                                      | : | 100  |
| Toxicity to fish (Chronic toxicity)                                    | : | NOEC (Pimephales promelas (fathead minnow)): >= 0.0228 mg/l<br>Exposure time: 36 d<br>Method: OECD Test Guideline 210<br>Remarks: No toxicity at the limit of solubility   |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia magna (Water flea)): 0.000018 mg/l<br>Exposure time: 21 d  |
| M-Factor (Chronic aquatic toxicity)                                    | : | 1,000  |
| Toxicity to microorganisms   | : | EC50 (activated sludge): > 10,000 mg/l<br>Exposure time: 3 h   |
| Toxicity to soil dwelling organisms                                    | : | EC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg  |
| Toxicity to terrestrial organisms                                      | : | LD50 (Colinus virginianus (Bobwhite quail)): > 561.00 mg/kg<br><br>LD50 (Apis mellifera (bees)): > 100 µg/bee  |

## Silica gel, precipitated, crystalline free:

- |                  |   |  |
|------------------|---|--|
| Toxicity to fish | : | LL50 (Danio rerio (zebra fish)): > 10,000 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203 |
|------------------|---|--|

# Starycide® Insect Growth Regulator

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

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Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EL50 (*Daphnia magna* (Water flea)): > 1,000 mg/l  
 Exposure time: 24 h  
 Method: OECD Test Guideline 202  
 Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : EL50 (*Scenedesmus subspicatus*): > 10,000 mg/l  
 Exposure time: 72 h  
 Method: OECD Test Guideline 201  
 Remarks: Based on data from similar materials

## Arylethylphenylpolyglykol ether:

Toxicity to fish : LC50 (*Brachydanio rerio* (zebrafish)): 31.6 mg/l  
 Exposure time: 96 h

## (Benzylloxy)methanol:

Toxicity to fish : EC50 : 81.5 mg/l  
 Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 43 mg/l  
 Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (*Desmodesmus subspicatus* (green algae)): 17.7 mg/l  
 Exposure time: 72 h

Toxicity to microorganisms : EC50 (activated sludge): > 10 - 100 mg/l  
 Exposure time: 3 h  
 Method: OECD Test Guideline 209  
 Remarks: Based on data from similar materials

Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1):

Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): 0.19 mg/l  
 Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 0.16 mg/l  
 Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (*Skeletonema costatum* (marine diatom)): 0.0052 mg/l  
 Exposure time: 48 h

NOEC (*Skeletonema costatum* (marine diatom)): 0.00049 mg/l  
 Exposure time: 48 h

M-Factor (Acute aquatic toxicity) : 100

Toxicity to fish (Chronic toxicity) : NOEC (*Pimephales promelas* (fathead minnow)): 0.02 mg/l  
 Exposure time: 36 d

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

---

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.10 mg/l  
Exposure time: 21 d

M-Factor (Chronic aquatic toxicity) : 100

**Persistence and degradability****Components:****Glycerine:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 92 %  
Exposure time: 30 d  
Method: OECD Test Guideline 301D

**(Benzyloxy)methanol:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 100 %  
Exposure time: 18 d  
Method: OECD Test Guideline 301E

Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1):

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 62 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B

**Bioaccumulative potential****Components:****Glycerine:**

Partition coefficient: n-octanol/water : log Pow: -1.75

**Triflumuron:**

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)  
Bioconcentration factor (BCF): 612

Partition coefficient: n-octanol/water : log Pow: 4.68

**(Benzyloxy)methanol:**

Partition coefficient: n-octanol/water : log Pow: 0.31 - 1.3  
Remarks: Calculation

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

---

Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1):

Partition coefficient: n- : log Pow: < 1  
octanol/water

**Mobility in soil**

No data available

**Other adverse effects**

No data available

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**Section 13: Disposal considerations****Disposal methods**

Waste from residues	:	It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines. Do not dispose of waste into sewer.
Contaminated packaging	:	Follow advice on product label and/or leaflet. Empty containers retain residue and can be dangerous. Do not re-use empty containers.

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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. (Triflumuron, Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)
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. (Triflumuron, Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

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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.  
(Triflumuron, Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)  
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  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Triflumuron, Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)  
Class : 9  
Packing group : III  
Labels : 9  
Hazchem Code : 3Z  
Marine pollutant : no

**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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**Section 15: Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture****HSNO Approval Number**

HSR008007

**HSW Controls**

Certified handler certificate not required.  
Tracking hazardous substance not required.

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

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Refer to the Health and Safety at Work (Hazardous Substances) Regulations 2017, for further information.

Product Type	:	Insecticides, acaricides and products to control other arthropods
Active substance	:	48 g/l Triflumuron

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**Section 16: Other information**

Revision Date : 31.01.2024

**Further information**

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Date format : dd.mm.yyyy

**Full text of other abbreviations**

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
NZ OEL : New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

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

**Starycide® Insect Growth Regulator**

Version	Revision Date:	SDS Number:	Date of last issue: 22.04.2023
1.1	31.01.2024	11196019-00002	Date of first issue: 22.04.2023

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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; TE CI - 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

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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