

# SAFETY DATA SHEET

## STARYCIDE SC48

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Revision Date: 27.02.2023

Version 1 / NZ

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### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifier

Trade name STARYCIDE SC48  
Product code (UVP) 79037848

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

Use Insecticide  
EPA Approval HSR008007

#### 1.3 Details of the supplier of the safety data sheet

Importer/distributor Garrards (NZ) Ltd  
Unit 4/27B Cain Road  
Penrose  
Auckland 0627  
New Zealand  
Telephone: 09 526 5232  
www.garrards.co.nz

#### 1.4 Emergency telephone numbers

Emergency Number **For specialist advice in an emergency call +64 9801 0034 or 0800 425 459 toll free.**  
The toll free phone number is possibly accessible, but not guaranteed from payphones within New Zealand and is not accessible from outside of New Zealand.

National Poisons Centre 0800 764 766 [0800 POISON]

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### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

**Classified as hazardous according to the criteria in the Hazardous Substances (Hazard Classification) Notice 2020**

Eye irritation Category 2

H319 Causes serious eye irritation.

Skin sensitisation Category 1

H317 May cause an allergic skin reaction.

Specific target organ toxicity, repeated exposure Category 2

H373 May cause damage to organs through prolonged or repeated exposure if swallowed.

Hazardous to the aquatic environment, chronic Category 2

H411 Toxic to aquatic life with long-lasting effects.

Hazardous to terrestrial invertebrates.

#### 2.2 Label elements

Labelling in accordance with Hazardous Substances (Labelling) Notice 2017

Pictograms

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**Signal word:** Warning

### Hazard statements

- H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H373 May cause damage to organs through prolonged or repeated exposure if swallowed.  
H411 Toxic to aquatic life with long lasting effects.  
Very toxic to terrestrial invertebrates.

### Precautionary statements

- P103 Read label before use.  
P261 Avoid breathing mist/vapour/spray.  
P264 Wash hands and exposed 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 and eye/face protection.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P363 Wash contaminated clothing before re-use.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P314 Get medical advice/attention if you feel unwell.  
P391 Collect spillage.  
P501 Dispose of contents/container in accordance with local regulation.

### 2.3 Other hazards

No other hazards known.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

#### Chemical nature

Suspension concentrate (SC) containing Triflumuron 48 g/L

#### Hazardous components

Name	CAS-No.	Conc. [%]
Triflumuron	64628-44-0	4.29
1,2-Benzisothiazol-3(2H)-one	2634-33-5	> 0.005 – < 0.05
Mixture of: 5-chloro-2methyl-4-isothiazolin-3-one and 2-methyl-4-isthiazlin-3-one	55965-84-9	≥0.0016 - <0.002
Other ingredients	Proprietary	To balance

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

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<b>General advice</b>	If medical advice is needed, have product container or label at hand. Contact the National Poisons Centre 0800 764 766 (0800 POISON]. Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
<b>Inhalation</b>	Move to fresh air and keep at rest in position comfortable for breathing. If symptoms persist, get medical advice.
<b>Skin contact</b>	Immediately wash with plenty of soap and water, or if available, polyethylene glycol 400 and then rinse with water. If skin irritation or rash occurs, get medical advice.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Do NOT induce vomiting. Call a doctor or National Poisons Centre immediately for advice.

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

**Symptoms** No symptoms known nor expected.

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

**Risks** No specific information.

**Treatment** Treat symptomatically. 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. There is no specific antidote.

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## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media

**Suitable** Use water spray, alcohol-resistant foam, dry chemical, sand.

**Unsuitable** None known.

**5.2 Special hazards arising from the substance or mixture** In the event of a fire, hazardous compounds/gases, e.g. hydrogen chloride, hydrogen cyanide, carbon monoxide, nitrogen oxides, may be released.

### 5.3 Advice for firefighters

**Special protective equipment for firefighters** In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

**Further information** Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth.

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### SECTION 6: ACCIDENTAL RELEASE MEASURES

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

**Precautions** Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke. Use personal protective equipment.

**6.2 Environmental precautions** Contain spillage. Do not allow to get into surface water, drains and ground water.

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

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.

**Additional advice** Comply with any local regulations.

**6.4 Reference to other sections** Information regarding safe handling, see section 7.  
Information regarding personal protective equipment, see section 8.  
Information regarding waste disposal, see section 13.

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### SECTION 7: HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

**Advice on safe handling** Read label before use. Apply only by ground-based methods. Use only in area with appropriate exhaust ventilation.

**Advice on protection against fire and explosion** No specific information.

**Hygiene measures** Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Remove contaminated clothing immediately and wash before reuse. Items that cannot be cleaned must be destroyed (burnt).

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

**Requirements for storage areas and containers** Keep out of reach of children. Keep tightly closed in a dry, cool and well-ventilated place. Store in original container. Store in a place accessible by authorized persons only. Protect from frost. Keep away from direct sunlight.  
Storage of more than 1000L requires signage, secondary containment and an emergency response plan.

**Advice on common storage** Keep away from food, drink and animal feeding stuffs.

**Suitable materials** No specific information.

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### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

Components	CAS-No.	Control parameters	Exposure	Basis
Triflumuron	64628-44-0	0.2 mg/m <sup>3</sup> (TWA)	Inhalation	OES BCS*
Glycerine (mist)	56-81-5	10 mg/m <sup>3</sup> (TWA)	Inhalation	NZ TWA**
Kaolin	1332-58-7	2 mg/m <sup>3</sup> (respirable dust)  10 mg/m <sup>3</sup> (TWA)	Inhalation	NZ TWA**
Synthetic amorphous silica	112926-00-8	10 mg/m <sup>3</sup> (TWA)	Inhalation	NZ TWA**

\*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

\*\* NZ Workplace exposure standards and biological exposure indices, WORKSAFE, ed. 13, April 2022

#### 8.2 Exposure controls

##### Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

##### Respiratory protection

Respiratory protection is not required under anticipated circumstances of exposure.  
Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

##### Hand protection

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.  
Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.  
Material Nitrile rubber  
Rate of permeability > 480 min  
Glove thickness > 0.4 mm  
Protective index Class 6  
Directive Protective gloves complying with relevant standard

##### Eye protection

Wear chemical goggles.

##### Skin and body protection

Wear standard coveralls. If there is a risk of significant exposure, consider a higher protective type suit.  
Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.  
If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

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### General information

The following Standards provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: **AS/NZS 4501**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	Light grey to brown liquid suspension
Odour	Weak, characteristic
Odour threshold	No information
pH	6.0 - 8.0 (neat) (23 °C)
Melting point/Freezing point	Not available
Initial boiling point and boiling range	Not available
Flash point	Non-flammable
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	No information
Vapour pressure	No information
Vapour density	No information
Relative density	ca. 1.12 g/cm (20°C)
Solubility	Forms suspension in water.
Partition coefficient: n-octanol/water	Triflumuron: log Pow 4.9 (22 °C)
Auto-ignition temperature	No information
Decomposition temperature	No information
Viscosity, dynamic	No information
Particle characteristics	No information

**9.2 Other information** Further safety related physical-chemical data are not known

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

**Thermal decomposition** Stable under normal conditions.

**10.2 Chemical stability** Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions** No hazardous reactions when stored and handled according to prescribed instructions.

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<b>10.4 Conditions to avoid</b>	Extremes of temperature and direct sunlight.
<b>10.5 Incompatible materials</b>	Store only in original container.
<b>10.6 Hazardous decomposition products</b>	No decomposition products expected under normal conditions of use.

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## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

<b>Acute oral toxicity</b>	Not classified.
<b>Acute inhalation toxicity</b>	Not classified.
<b>Acute dermal toxicity</b>	Not classified.
<b>Skin irritation</b>	Non-irritating (rabbit). Test conducted on similar formulation.
<b>Eye irritation</b>	Non-irritating (rabbit). Test conducted on similar formulation.
<b>Respiratory sensitisation</b>	Not classified
<b>Skin sensitisation</b>	Non-sensitizing (guinea pig). Test conducted on similar formulation.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.

#### **Assessment mutagenicity**

Triflumuron is not mutagenic nor genotoxic in a battery of in vitro and in vivo tests.

#### **Assessment carcinogenicity**

Triflumuron was not carcinogenic in lifetime feeding studies in rats and mice.

#### **Assessment toxicity to reproduction**

Triflumuron did not cause reproductive toxicity in a two-generation study in rats.

#### **Assessment developmental toxicity**

Triflumuron did not cause developmental toxicity in rats and rabbits.

#### **Assessment of toxicity by lactation**

Not classified.

#### **Assessment STOT Specific target organ toxicity – single exposure**

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

#### **Assessment STOT Specific target organ toxicity – repeated exposure**

Triflumuron classified for STOT repeated exposure. Primary organ affected is blood and hematopoietic system.

#### **Toxicological data**

Oral LD50 (Rat) >5,000 mg/kg Test conducted on similar formulation.

Inhalation LC50 (Rat) 4 hr >0.215 mg/L. Test conducted on similar formulation.

Dermal LC50 (Rat) > 5,000 mg/kg. Test conducted on similar formulation.

#### **Further information**

Not available.

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### SECTION 12: ECOLOGICAL INFORMATION

#### 12.1 Toxicity

##### Hazard classification

Toxic to aquatic life with long lasting effects.  
Toxic to terrestrial invertebrates.

##### Toxicity to fish

LC50 (*Lepomis macrochirus* (Bluegill sunfish)) 183mg/l  
Exposure time: 96 h  
Test conducted on a similar formulation.

##### Toxicity to aquatic invertebrates

EC50 (*Daphnia magna* (Water flea)) 0.00032 mg/l  
Exposure time: 48 h  
Test conducted on similar formulation.

##### Toxicity to aquatic plants

IC50 (*Desmodesmus subspicatus* (green algae)) > 446 mg/l  
Exposure time: 72 h  
Test conducted on similar formulation.

#### 12.2 Persistence and degradability

##### Biodegradability

Triflumuron:  
Not rapidly biodegradable.

##### Koc

Triflumuron: 8601

#### 12.3 Bioaccumulative potential

##### Bioaccumulation

Triflumuron: BCF 612  
Does not bioaccumulate

#### 12.4 Mobility in soil

##### Mobility in soil

Triflumuron:  
Immobile in soil.

#### 12.5 Results of PBT and vPvB assessment

##### PBT and vPvB assessment

Triflumuron: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

#### 12.6 Other adverse effects

##### Additional ecological information

No further ecological information is available.

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### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

##### Product

Dispose of this product only by using according to the label, or at an approved landfill or other approved facility.

##### Contaminated packaging

Triple rinse containers. Recycle if possible. If allowed under local authority, burn if circumstances, especially wind direction permit, otherwise crush and bury in an approved local authority facility. Do not use container for any other purpose.

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### SECTION 14: TRANSPORT INFORMATION

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

#### ADR/RID/ADN

14.1 UN number	<b>3082</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIFLUMURON SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES
Hazchem Code	3Z

#### IMDG

14.1 UN number	<b>3082</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIFLUMURON SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Marine pollutant	YES

#### IATA

14.1 UN number	<b>30782</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIFLUMURON SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environ. Hazardous Mark	YES

#### 14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

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

No transport in bulk according to the IBC Code.

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### SECTION 15: REGULATORY INFORMATION

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

##### HSNO Act 1996

HSNO substance No.	HSR008007
HSNO Controls	See <a href="http://www.epa.govt.nz">www.epa.govt.nz</a>

##### ACVM Act 1996

ACVM registration No.	Exempt
ACVM conditions	See <a href="http://www.foodsafety.govt.nz">www.foodsafety.govt.nz</a>

**Other product approvals**      Approved Maintenance Compound Type B

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### SECTION 16: OTHER INFORMATION

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**Date issued:** 27th February 2023  
**Reason for issue:** Change is supplier and 5-yearly review, update to GHS  
**Replaces:**

### Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
Conc.	Concentration
ECx	Effective concentration to x %
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time weighted average
UN	United Nations
WHO	World Health organisation

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance of the product.