

SAFETY DATA SHEET according to the Occupational Safety and Health
(Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations
2013 and Pesticides Act 1974



STARYCIDE SC 480

Version 1 / MAL
102000026276

1/10
Revision Date: 17.04.2020
Print Date: 21.04.2020

SECTION 1: IDENTIFICATION OF THE HAZARDOUS CHEMICAL AND OF THE SUPPLIER

1.1 Product identifier

Trade name STARYCIDE SC 480
Product code (UVP) 80553145, 80972075

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

Use Insecticide

1.3 Details of the supplier of the safety data sheet

Supplier Bayer AG Kaiser-Wilhelm-Allee 1 51373 Leverkusen Germany
Local distributor Bayer Co. (Malaysia) Sdn Bhd B-19-1 & B-19-2, The Ascent Paradigm, No. 1, Jalan SS 7/26A, Kelana Jaya, 47301 Petaling Jaya, Selangor. Malaysia

Telephone 03 7801 3088 (office hours)

Telefax 03 7886 3338

1.4 Emergency telephone no.

In case of POISONING, please contact Malaysian Emergency Response Services (999)



Global Incident Response Hotline (24h) +1 (760) 476-3964 (Company 3E for Bayer AG, Crop Science Division)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to the Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013

Acute aquatic toxicity: Category 1
H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1
H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements

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Labelling according to the Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Triflumuron



Signal word: Warning

Hazard statements

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P501 Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

No other hazards known.

SECTION 3: COMPOSITION AND INFORMATION OF THE INGREDIENTS OF THE HAZARDOUS CHEMICAL

3.2 Mixtures

Chemical nature

Suspension concentrate (=flowable concentrate)(SC)
Triflumuron 480 g/l

Hazardous components

Name	CAS-No.	Conc. [%]
Triflumuron	64628-44-0	39.35
Sodium 2-[methyloleoylamino] ethane-1-sulphonate	137-20-2	> 1 – < 10
1,2-Benzisothiazol-3(2H)-one	2634-33-5	> 0.02 – < 0.05
reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	> 0.001 – < 0.0015
Glycerine	56-81-5	> 1

Further information

Triflumuron	64628-44-0	M-Factor: 100 (acute)
1,2-Benzisothiazol-3(2H)-one	2634-33-5	M-Factor: 1 (acute)
reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-	55965-84-9	M-Factor: 100 (acute), 100 (chronic)



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2H-isothiazol-3-one (3:1)		
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SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice	Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
Inhalation	Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.
Skin contact	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.
Eye contact	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.
Ingestion	Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms No symptoms known or expected.

4.3 Indication of any immediate medical attention and special treatment needed

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.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable	Water spray, Carbon dioxide (CO ₂), Foam, Sand
Unsuitable	None known.

5.2 Special hazards arising from the substance or mixture In the event of fire the following may be released: Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Hydrogen fluoride, Carbon monoxide (CO), Nitrogen oxides (NO_x)

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 Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.



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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. Use personal protective equipment.

6.2 Environmental precautions 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). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.

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.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling Use only in area provided with appropriate exhaust ventilation.

Hygiene measures Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands immediately after work, if necessary take a shower. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep away from direct sunlight.

Advice on common storage Keep away from food, drink and animal feedingstuffs.

Suitable materials HDPE (high density polyethylene)

7.3 Specific end use(s) Refer to the label and/or leaflet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Triflumuron	64628-44-0	0.2 mg/m ³ (TWA)		OES BCS*
Glycerine	56-81-5	10 mg/m ³	03 2000	MY OEL



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(Mist.)		(TWA)		
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*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

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
Directive	Protective gloves complying with EN 374.

Eye protection

Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

Skin and body protection

Wear standard coveralls and Category 3 Type 6 suit.
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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form	suspension
Colour	white to beige
Odour	weak, characteristic
Odour Threshold	No data available

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pH	7.0 - 8.0 (100 %) (23 °C)
Melting point/range	No data available
Boiling Point	No data available
Flash point	> 100 °C No flash point - Determination conducted up to the boiling point.
Flammability	No data available
Auto-ignition temperature	475 °C
Self-accelarating decomposition temperature (SADT)	No data available
Upper explosion limit	No data available
Lower explosion limit	No data available
Vapour pressure	No data available
Evaporation rate	No data available
Relative vapour density	No data available
Relative density	No data available
Density	ca. 1.22 g/cm ³ (20 °C)
Water solubility	miscible
Partition coefficient: n-octanol/water	Triflumuron: log Pow: 4.9 (22 °C)
Viscosity, kinematic	No data available
Impact sensitivity	Not impact sensitive.
Oxidizing properties	No oxidizing properties
Explosivity	Not explosive 92/69/EEC, A.14 / OECD 113
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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- 10.4 Conditions to avoid** Extremes of temperature and direct sunlight.
- 10.5 Incompatible materials** Store only in the original container.
- 10.6 Hazardous decomposition products** No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

- Acute oral toxicity** LD50 (Rat) > 5,000 mg/kg
Test conducted with a similar formulation.
- Acute inhalation toxicity** LC50 (Rat) > 0.215 mg/l
Exposure time: 4 h
Determined in the form of a respirable aerosol.
Highest attainable concentration.
Test conducted with a similar formulation.
- Acute dermal toxicity** LD50 (Rat) > 5,000 mg/kg
Test conducted with a similar formulation.
- Skin corrosion/irritation** No skin irritation (Rabbit)
Test conducted with a similar formulation.
- Serious eye damage/eye irritation** No eye irritation (Rabbit)
Test conducted with a similar formulation.
- Respiratory or skin sensitisation** Skin: Non-sensitizing. (Guinea pig)
OECD Test Guideline 406, Magnusson & Kligman test

Assessment STOT Specific target organ toxicity – single exposure

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

Assessment STOT Specific target organ toxicity – repeated exposure

Triflumuron did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

Triflumuron was not mutagenic or 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.

Aspiration hazard

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



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SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish LC50 (Lepomis macrochirus (Bluegill sunfish)) 183 mg/l
Exposure time: 96 h

Toxicity to aquatic invertebrates EC50 (Daphnia magna (Water flea)) 0.00032 mg/l
Exposure time: 48 h

Toxicity to aquatic plants IC50 (Desmodesmus subspicatus (green algae)) > 446 mg/l
Growth rate; Exposure time: 72 h

12.2 Persistence and degradability

Biodegradability Triflumuron:
Not rapidly biodegradable

Koc Triflumuron: Koc: 8601

12.3 Bioaccumulative potential

Bioaccumulation Triflumuron: Bioconcentration factor (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 other effects to be mentioned.

SECTION 13: DISPOSAL INFORMATION

13.1 Waste treatment methods

Product In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

Contaminated packaging Not completely emptied packagings should be disposed of as hazardous waste.

SECTION 14: TRANSPORT INFORMATION

ADR/RID/ADN

14.1 UN number

3082

14.2 Proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

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	(TRIFLUMURON SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Environm. Hazardous Mark	YES
Hazard no.	90
Tunnel Code	-

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

IMDG

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

IATA

14.1 UN number	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TRIFLUMURON SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packaging Group	III
14.5 Environm. 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.

SECTION 15: REGULATORY INFORMATION

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

Further information

WHO-classification: U (Unlikely to present acute hazard in normal use)

SECTION 16: OTHER INFORMATION

The information contained within this Safety Data Sheet is in accordance to The Industry Code of Practice on Chemical Classification and Hazard Communication 2013 (ICOP) which is promulgated under Section 37 of Occupational Safety and Health Act 1994 (OSHA 1994) and serves as a guidance to chemical suppliers to comply with the provisions of Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013 [P.U. (A) 310/2013] which have been gazetted on 11 October 2013, hereinafter is referred to as "the Regulations". This data sheet complements the user's instructions, but does not replace them. The information contained

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therein is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with the current Malaysia legislation, including the Pesticides Act 1974. Addressees are requested to observe any additional national requirements.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Restricted to COMPESTI SDN BHD customers only