Safety Data Sheet (SDS) Triflumuron 480

According to UN GHS 8th Ed
Revision Date: 09/09/2022

First print date: 01/06/2018
Version: 1.1

SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:

Identification as on the label/Trade name: Triflumuron 480

Common name: Triflumuron 480 g/L SC

Relevant identification uses of the substance and uses advised against:

Identified uses: Insecticide

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

Enviro Bio-Chem (Pty) Ltd, 44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Details of the Registration Holder:

RT Chemicals CC, 44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Contact Details:

Telephone: +27 87 231 7261
Fax: 086 541 7948
Website: www.envirobiochem.co.za

Emergency telephone numbers:

24 Hour Emergency Number: Bateleur: +27 83 123 3911
Griffon Poison Information Centre: +27 82 446 8946
Poisons Information Helpline: 0861 555 777
Tygerberg Hospital: +27 21 931 6129

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]

Hazard classes/Hazard categories	Hazard statement
Acute toxicity Inhalation (Category 4)	H332
Aquatic Toxicity Acute (Category 1)	H400
Aquatic Toxicity Chronic (Category 1)	H410

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: None known

The most important adverse human health effects: Harmful if Inhaled

Label elements

Hazard pictograms

Signal Word: Warning

Hazard Statements:

H332	Harmful if Inhaled
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Precautionary Statements:

P102	Keep out of reach of children
P103	Read label before use
P264	Wash hands, forearms, and face thoroughly after handling
P270	Do not eat, drink, or smoke when using this product.
P273	Avoid release to the environment.
P391	Collect spillage
P501	Dispose of contents/container in accordance with local/regional/ national regulations

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC)	CAS Number.	Concentration % by weight	Classification EC1272/2008
Triflumuron	64628-44-0	39%	Aquatic Acute (Category 1) H400 Aquatic Chronic (Category 1) H410
Ethylene glycol	107-21-1	< 10 %	Acute Toxicity oral (Category 4) H302
Calcium lignosulphonate	8061-52-7	< 3 %	Aquatic Chronic (Category 4) H413
Calcium dodecylbenzenesulfonate	26264-06-2	< 2 %	Acute Toxicity Oral (Category 4) H302 Skin Irritation (Category 2) H315 Eye Damage (Category 1) H318 Aquatic Chronic (Category 4) H413

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:

In case of inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if you feel unwell.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Seek medical attention immediately.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

In case of ingestion: Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar,tie, belt, or waistband.

Most important symptoms and effects, both acute and delayed:

Ingestion: None known

Delayed effects: None known

Indication of any immediate medical attention and special treatment needed:

There is no specific antidote. Treat symptomatically and supportively.

SECTION 5. FIRE FIGHTING MEASURES

Extinguisher media:

Suitable extinguisher media: Foam. Dry powder. Carbon dioxide. Water spray.

Small Fire: Extinguish small fires with carbon dioxide, dry powder, or alcohol-resistant foam.

Large Fire: Water fog or foam can be used for larger fires or cooling of unaffected stock but avoid the accumulation ofpolluted run-off from the site.

Unsuitable extinguishing media**:** Do not use high volume water jet, due to contamination risk.

Special hazards arising from the mixture:

Fire Hazard: The material does not burn or burns with difficulty. It is not explosive. Airborne Bromacil dust may ignite.
Hazardous decomposition products in case of fire: Refer to Section 10: Stability and Reactivity.

Advice for fire-fighters:

Avoid inhaling hazardous vapours and fumes. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent.
Contain fire control agents for later disposal according to Section 13.
Water can be used to cool unaffected containers.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment, and emergency procedures:

For non-emergency personnel: Keep all personnel away .Avoid contact with eyes and skin.

For emergency responders: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent Avoid contact with eyes and skin. Do not breathe in fumes. Refer to section 8 for recommended personal protective equipment. Evacuate unnecessary personnel.

Environmental precautions:

Stop leak if without risk. Prevent entry into drains, watercourses, or confined areas; dike if needed. If the product contaminates public water, inform appropriate authorities immediately in accordance with local regulations.

Dispose in a safe manner in accordance with local/national regulations.

Methods for containment and cleaning up:

For small spills: Clean up promptly. Do not use water to collect spilled product. Absorb with materials such as: sand, earth, vermiculite, or diatomaceous earth.Do not flush spilled product into drains. If spill area is on ground near trees or other valuable plants, remove top 5 cm of soil after initial clean-up. Wear PPE. Collect in suitable and properly labelled containers.

For large spills : Isolate area and keep unauthorized personnel away. Contain spilled material if possible. Clean up promptly. Do not use water to collect spilled product. Absorb with materials such as: sand, earth, vermiculite, or diatomaceous earth.Do not flush spilled product into drains. If spill area is on ground near trees or other valuable plants, remove top 5 cm of soil after initial clean-up. Wear PPE. Collect in suitable and properly labelled containers.

Reference to other sections:

See section 1 for emergency contact details

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See section 13 for information on disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

May be harmful if inhaled. Avoid contact with eyes and skin. Ensure adequate ventilation during handling and use. Do not handle broken containers without protective equipment. Immediately clean up spills that occur during handling. Keep containers tightly closed when not in use

Protective measures: Observe directions on label and instructions for use.

Advice on general occupational hygiene: Do not eat drink or smoke when handling this product.

Conditions for safe storage, including incompatibilities:

Keep out of reach of unauthorised persons, children, and animals. Store in its original labelled container tightly closed, in a dry, cool, and well- ventilated area. Do not store for prolonged periods in direct sunlight. Avoid excessive heat. Not to be stored close to food, feed, and water supplies. Do not contaminated other pesticides and fertilizers

Specific end uses:

Use as directed. Use original container.

Conditions for safe storage, including incompatibilities:

Store in original containers. Store product in a segregated and approved area. Keep container in a cool, well-ventilated area at temperatures not exceeding 40˚C Keep container tightly closed and sealed until ready for use. Keep under lock and key out of reach of unauthorized persons, children, and animals. Store away from incompatible substances. Provide adequate exhaust ventilation in areas where dust may form. Do not leave in applicators for extended periods.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Occupational Exposure Limits : No data available.

Exposure control:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. A Risk Assessment should be conducted before handling is to commence to determine specific exposure control.

Appropriate engineering controls: Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Use splash proof safety glasses and face shield .

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Appropriate impervious clothing is required to prevent skin contact with the product, apron, rubber boots.

Respiratory protection: Avoid breathing spray mist. Wear an organic cartridge respirator suitable for protection from mists/ vapours of pesticides if inhalation is likely to occur.

Environmental exposure controls: Prevent product from entry into sewers and water courses.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid

Colour	Grey / white
Odour	No data available
Odour threshold	No data available
pH	No data available
Melting point / freezing point (° C)	Not applicable
Boiling point (° C)	No data available
Flash point (° C)	No data available
Evaporation rate	No data available
Flammability	No data available
Upper /lower flammability limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density g/ml (20°C)	No data available
Specific Gravity	1.245
Water solubility (g/l) at 25°C	No data available
Partition coefficient : n-octanol/water	No data available
Auto-ignition temperature (° C)	No data available
Decomposition temperature (° C)	No data available
Viscosity, dynamic (mPa s)	No data available
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available

SECTION 10. STABILTY AND REACTIVITY

Reactivity: None known

Chemical stability: Product is stable at ambient temperature and pressure, under normal storage and handling conditions

Possibility of hazardous reactions: None known

Conditions to avoid: Avoid excessive heat and ignition sources.

Incompatible materials: Avoid use with alkali products and pesticides.

Hazardous decomposition products: Triflumuron belongs to Benzophenone Carbamide Pesticide. Its homologues degrade quickly in nature, acidity is stable, alkali is also easy to degrade. Triflumuron will consume the dissolved oxygen in water, produce acid matters (reducing the pH) which will totally change the water quality. Even when the pesticide is over-saturated it will not degrade the oxygen-consuming rate.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution: No data available

Information on toxicological effects:

Assessment of acute toxicity:

The product has not been tested. The data reported is for the main ingredients in the mixture.

Triflumuron CAS No. 64628-44-0	
Acute toxicity:	
Acute Oral LD50 (rat-female)	>5000 mg/kg
Acute Dermal LD50 (rabbit):	>5000 mg/kg
Acute Inhalation LC50 - 4 h (rat)	> 1.9 mg/l
Skin irritation/ corrosion	Not a skin irritant
Eye damage / irritation	Not an eye irritant

Respiratory or skin sensitization	Not a skin sensitiser
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	No data available
Aspiration hazard	No data available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Ethylene Glycol CAS No. 107-21-1	
Acute toxicity:	
Acute Oral LD50 (rat)	7712 mg
Acute Dermal LD50 (mouse)	3500 mg/kg
Acute Inhalation LC50 - 6 h (rat)	2.5 mg/l
Skin irritation/ corrosion (rabbit)	No skin irritation 20h
Eye damage / irritation	No eye irritation 24h
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	No data available
Aspiration hazard	No data available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Calcium dodecylbenzenesulphonate CAS No. 26264-06-2	
Acute toxicity:	
Acute Oral LD50 (rat - male)	1300 mg/kg
Acute Dermal LD50 (rat):	2000 mg/kg
Acute Inhalation LC50 - 4 h (rat)	0.31 mg/l
Skin irritation/ corrosion	Irritating to skin
Eye damage / irritation	Irritating to eyes
Respiratory or skin sensitization	Not a respiratory or skin sensitizer
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	No data available
Aspiration hazard	No data available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12. ECOLOGICAL INFORMATION

Triflumuron CAS No. 64628-44-0
Toxicity

Birds Acute oral LD50	561 mg/kg Bobwhite quail
Aquatic Toxicity Fish LC_{50} (96 hr) Aquatic Toxicity Daphnia LC_{50} (48 hr) Toxicity to algae – static test E_rC50 (96h) Toxicity to bees LD_{50} (contact) Worms LC_{50} (14 d)	>100 mg/l Golden Orfe ; >320 mg/l, Rainbow trout 0.225 mg/l >25mg/l for Scenedesmus quadricauda (Green algae) Toxic to bees >1000 mg/kg
Persistence and degradability	Not rapidly biodegradable
Bioaccumulation potential	No data available
Mobility in Soil	No data available
Result of PBT and vPvB assessment	No data available
Other adverse effects	Not determined

Ethylene Glycol CAS No. 107-21-1	
Toxicity	
Aquatic Toxicity Fish Static LC_{50} (96 hr) Aquatic Toxicity Daphnia LC_{50} (48 hr) Toxicity to algae – static test EC_{50} (72h) Toxicity to bacteria static test EC20 activated sludge (30 minutes) ISO 8192	>72860 mg/l Pimephales promelas (*fathead minnow*) >100 mg/l Daphnia magna (Water flea) >10000 mg/l - Scenedesmus quadricauda (Green algae) >1995 mg/l >84 µg/bee.
Persistence and degradability Biodegradability-aerobic 10 days	90-100 % - Readily biodegradable.
Bioaccumulation potential	No data available
Mobility in Soil	No data available
Result of PBT and vPvB assessment	No data available
Other adverse effects	No data available

Calcium dodecylbenzenesulphonate CAS No. 26264-06-2	
Toxicity	
Aquatic Toxicity Fish LC_{50} (96 hr) Aquatic Toxicity Daphnia semi static EC_{50} (96 hr) Toxicity to algae – static test EC50 (96h) Toxicity to bacteria EC50 (3h)	1.74 -7.16 mg/l No data available 2.73 – 29 mg/l 500 – 723 mg/l
Persistence and degradability	No data available
Bioaccumulation potential	No data available
Mobility in Soil	No data available
Result of PBT and vPvB assessment	No data available
Other adverse effects	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Product:

Keep out of drains, sewers, ditches, and waterways. Open dumping or burning of this pesticide is prohibited.

Waste resulting from the use of this product cannot be re-used or reprocessed. Refer to container label for disposal information. Treat as hazardous waste and dispose of in accordance with local/ regional/ national/ international regulations.

Container:

Refer to container label for disposal information. Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is cleaned, reconditioned, or destroyed. Rinse empty container three times with a volume of water equal to at least one tenth of that of the container. Pour rinse water into spray tank. Dispose of as hazardous waste. not contaminate water when disposing of rinse water. Dispose of using an approved waste disposal service provider. Follow all local/ regional/ national/ international regulations.

SECTION 14. TRANSPORT INFORMATION

UN Number	3082
UN proper shipping name	Environmentally Hazardous Substance; Liquid; N.O.S. (Triflumuron 480g/ℓ)
Transport hazard class	9
Packaging group	III
Marine pollutant	Yes

SECTION 15. REGULATORY INFORMATION

Safety, health, and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993. Regulation for Hazardous Chemical Agents, 2021.UN Recommendations on the Transport of Dangerous Goods Model Regulations Rev. 21 (2019), Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 8, 2019.

Relevant information regarding restrictions:

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP]

Other National regulations:

National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes.

National Environmental Management Waste Act 59 of 2008.

Act 36 of 1947 of the Republic of South Africa. This product is registered under it is a violation of South African law to use this product in any manner inconsistent with its approved labelling. Read and follow all label directions

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

Classification according to SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]

GHS aligned – all sections

Training instructions:

Use as indicated on the label, special training may be required for application.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product, nor where instructions or recommendations are not followed.