

Safety Data Sheet (SDS) ENVIRO Glyphosate 360

According to UN GHS 8th Ed
Revision Date: 12/08/2022

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: ENVIRO Glyphosate 360
Common Name: Glyphosate 360 g/l SL

Relevant identification uses of the substance and uses advised against:

Identified uses: Herbicide

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:

Enviro Industries (Pty) Ltd, 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
Aquatic toxicity chronic (Category 2)	H411

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: None known.

Label elements



Hazard pictograms

Signal Word: No signal word.

Hazard Statements:

H411	Toxic to aquatic life with long lasting effects
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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.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P391	Collect spillage.
P501	Dispose of contents/container in accordance with local/regional/ national/international

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC)	CAS Number.	Concentration % by weight	Classification EC1272/2008
Glyphosate	1071-83-6	41%	Eye damage (Category 1) H318 Aquatic Chronic (Category 2) H411
D-Glucopyranose, Oligomeric, C8-16-Alkyl Glycosides	141464-42-8	< 10%	Skin irritation (Category 2) H315 Eye irritation (Category 2) H319

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: Do not induce vomiting. Do not give anything by mouth to an unconscious person. Have victim rinse mouth thoroughly with water. Seek medical advice immediately showing container and label.

Most important symptoms and effects, both acute and delayed:

Symptoms of exposure to the product : None known

Acute effects: None known.

Anticipated delayed effects: None known

Indication of any immediate medical attention and special treatment needed:

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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 spray can be used for larger fires or cooling of unaffected stock but avoid the accumulation of polluted 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:

Hazardous decomposition products in case of fire: Refer to Section 10: Stability and Reactivity.

Advice for fire-fighters:

Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent.

Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents for later disposal. Avoid pollution of waterways by run-off from the site

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. This product is classified to be toxic to aquatic organisms with long-term adverse effects in the aquatic environment.

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. Cover contained spill with an inert absorbent material such as sand, earth or other appropriate non-combustible material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations.

Do not place spilled material back in original container. Do not re-use spill material

For large spills : Isolate area and keep unauthorized personnel away. Contain spilled material if possible. Clean up promptly. Cover contained spill with an inert absorbent material such as sand, earth, or other appropriate non-combustible material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spill material. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent (i.e., organic solvent, detergent bleach, or caustic). Add the solution to the drums already collected. Open burning or dumping of this material is prohibited

Reference to other sections:

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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:

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. In the case of contact with the product refer to First Aid Measures – Section 4.

Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

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. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used

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.

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

No occupational exposure limits have been determined for the significant ingredients in this product.

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

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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: Wear an organic cartridge respirator suitable for protection from mists/vapours of pesticides if product will be used in an area that is not well ventilated.

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	Light Amber to Light Brown
Odour	No data available
Odour threshold	No data available
pH	4.5-5.5
Melting point / freezing point (°C)	200
Boiling point (°C) (Bromacil)	No data available
Flash point (°C)	>100 Water-based, non-flammable
Evaporation rate	No data available
Flammability	Non flammable
Upper /lower flammability limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density (25°C)	1.17 g/ml @ 20 °C
Water solubility (g/l) at 25°C	12 g/l (25 °C). Completely miscible
Solvent solubility	Insoluble in common organic solvents e.g. acetone, ethanol and xylene.
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	Corrosive to iron, steel and aluminium.
Explosive limits	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity: None known

Chemical stability: The product is stable for 2 years at ambient temperature and pressure, under normal storage and handling conditions. Avoid storage under extreme temperatures and conditions. Store below 50°C, preferably below 30°C, and not for prolonged periods in direct sunlight.

Possibility of hazardous reactions: No information available.

Conditions to avoid: None known

Incompatible materials: Spray solutions containing this product should be mixed, stored, or applied using stainless steel, aluminium, fiberglass, or plastic lined containers. Do not mix, store or apply in galvanized or unlined mild steel containers or spray tanks. The product can react with such containers and tanks or produce hydrogen gas which may form a highly combustible mixture that can flash or explode if ignited. The product is relatively stable in neutral, weakly acidic and weakly alkaline media but reacts strongly (and possibly violently) with strong alkalis. Mixing with other products may reduce the

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activity of glyphosate. Do not mix with other herbicides or pesticides except for products mentioned on the product label. Do not physically mix concentrate directly with other herbicides or a pesticide concentrate, always dilute first.

Hazardous decomposition products: Toxic oxides of carbon, nitrogen and phosphorus are released when the product decomposes on heating.

Other decomposition products - No data available

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution: No data available

Information on toxicological effects:

Assessment of acute toxicity:

The product has been tested. The data reported is based on the mixture; Glyphosate 360 g/l SL.

Glyphosate CAS No. 1071-83-6	
Acute toxicity:	
Acute Oral LD50 (rat-female)	> 5000 mg/kg
Acute Dermal LD50 (rabbit):	> 5000 mg/kg
Acute Inhalation LC50 - 4 h (rat)	> 4 mg/L/4h
Skin irritation/ corrosion	Not irritating to skin (rabbits)
Eye damage / irritation	Not irritating to eyes (rabbits)
Respiratory or skin sensitization	No sensitization (guinea pig)
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

Glyphosate CAS No. 1071-83-6	
Toxicity	
Birds Acute oral LD50 Dietary LC50 5 days	>3851 mg/kg Bobwhite quail >4640 mg/kg diet Mallard ducks and Bobwhite quail
Aquatic Toxicity Fish LC ₅₀ (96 hr) Aquatic Toxicity Daphnia LC ₅₀ (48 hr) Toxicity to algae: E _r C50 (72h) E _b C50 (72h) EC50 (96h) Toxicity to bees LD ₅₀ (contact and oral)	86 mg/l Rainbow trout ; 120 mg/l, Bluegill sunfish 780 mg/l 460 mg/l for green algae (<i>Selenastrum capricornutum</i>) 485mg/l for green algae (Selenastrum capricornutum) 1.3mg/l for marine algae (<i>Skeletonema costatum</i>) >100 µg/bee.

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Persistence and degradability	In soil (field), DT50 1-130 d, depending on edaphic and climatic conditions. In water, DT50 varies from a few to 91 d. Photodegradation in natural water occurs, DT50 33-77d no substantial photodegradation in soil was recorded over 31 d. In lab. Whole system with water and sediment, DT50 27-146 d (aerobic), 14-22 d (anaerobic). The major metabolite in soil and water is aminomethylphosphonic acid.
Bioaccumulation potential	No data available
Mobility in Soil	No data available
Result of PBT and vPvB assessment	No data available
Other adverse effects	Toxic to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS
Waste treatment methods:
Product:

Keep out of drains, sewers, ditches, and waterways. 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. Triple or pressure rinse empty containers. Pour rinse water into spray tank. Dispose of as hazardous waste. Do 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, Liquid, N.O.S. (Glyphosate-isopropyl ammonium 360 g/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

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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.