

1. IDENTIFICATION OF THE SUBSTANCE AND THE SUPPLIER

Product name: GLUFOSINEX

Active Ingredient: Glufosinate ammonium 200 g/L

Registration number: L11119

Recommended use of the chemical and Herbicide

restrictions on use

Registration holder: ADAMA South Africa (Pty) Ltd

Ground Floor, Simeka House The Vineyards Office Estate,

99 Jip de Jager Drive

Bellville 7530

Phone number: + 27 21 982 1460

Emergency phone number(s): Griffon Poison Information Centre: +27 (0)82 446 8946

Tygerberg Poison Information Centre: +27 (0)861 155 5777 SPILL TECH®: +27(0)86 100 0366; +27 (0)83 253 6618

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Hazard Class	Category	Hazard Statement Number
Acute Oral Toxicity	4	H302
Acute Dermal Toxicity	5	H313
Acute Inhalation Toxicity	4	H332
Skin Corrosion/Irritation	2	H315
Serious Eye Damage/Irritation	1	H318
Reproductive toxicity	Category 1B	H360
Specific target organ toxicity – Single	Category 1	H370
Specific target organ toxicity – Repeated	Category 2	H373
Aquatic Toxicity Acute	1	H400
Aquatic Toxicity Chronic	1	H410

GHS Label elements, including precautionary statements:









Signal word:

DANGER

Hazard statement(s):

H302: Harmful if swallowed

H313: May be harmful in contact with skin

H332: Harmful if inhaled

H315: Causes skin irritation

H318: Causes serious eye damage

H360: May damage fertility or the unborn child.

H370: Causes damage to organs.

H373: May cause damage to organs.

H400: Very toxic to aquatic life

H410: Very toxic to aquatic life with long lasting effects

Precautionary statement(s):

P203: Obtain, read and follow all safety instructions before use.

P260: Do not breathe dust/fume/gas/mist/ vapours/spray.

P261: Avoid breathing dust/fume/gas/mist/vapors/spray.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P301+P317: IF SWALLOWED: Get medical help.

P302 + P317: IF ON SKIN: Get medical help.

P302+P352: IF ON SKIN: Wash with plenty of water.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P354 + P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P316: IF exposed or concerned: Get emergency medical help immediately.

P317: Get medical help.

P318: IF exposed or concerned, get medical advice.

P319: Get medical help if you feel unwell.

P321: Specific treatment.

P330: Rinse mouth.

P332+P317: If skin irritation occurs: Get medical help.

P362+P364: Take off contaminated clothing and wash it before reuse.

P391 Collect spillage.

P405: Store locked up.

P501: Dispose of contents/container to in accordance with local/regional/national /international regulations.

Other hazards which do not result in classification:

No data available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration	Classification
Glufosinate-ammonium	77182-82-2	20	Acute Toxicity, Oral, Category 4.
			Acute Toxicity, Dermal, Category 4.



Revision date: 24/04/2022	Version 2		Print date: 12/12/2022
			Acute Toxicity, Inhalation, Category 4.
			Reproductive toxicity: Category 1B
			Specific target organ toxicity – Single:
			Category 1
			Specific target organ toxicity – Repeated:
			Category 2
			Aquatic Toxicity, Acute, Category 1.
			Aquatic Toxicity, Chronic, Category 1.
Propylene glycol	107-98-2	11	Acute oral, Category 5.
monomethyl ether	& 1589-47-5		Acute dermal, Category 5.
			Acute inhalation, Category 5.
			Skin Corrosion/Irritation, Category 2.
			Eye Corrosion/Irritation, Category 1.
			Reproductive toxicity: Category 1B
Alkylethersulphate,	68585-34-2	30	Acute Toxicity, Oral, Category 4.
sodium salt	& 64-17-5		Skin irritation, Category 2.
			Eye Irritation, Category 2.
			Specific target organ toxicity – Single:
			Category 2
			Aquatic Toxicity, Chronic Category3
Water	7732-18-5	1	1

4. FIRST AID MEASURES

Description of necessary first aid measures:

Ingestion: If swallowed, wash out mouth with water. Do not induce vomiting. Keep patient at rest and seek medical advice, as follow.

Inhalation: If inhaled, remove to fresh air, keep warm and at rest. Seek medical advice if inhaled in large quantities.

Skin contact: Carefully remove contaminated clothing and footwear. Wash affected areas with soap and water. Seek medical aid if symptoms persist.

Eye contact: Rinse eyes immediately with clean water for at least 15min and obtain medical aid.

Advice to doctors: There is no specific antidote. All treatment should be based on the patient's painful signs and symptoms.

Antidote: No specific antidote.

Most important symptoms/effects, acute and delayed:

To date no symptoms are known.

Indication of immediate medical attention and special treatment needed:

There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.



5. FIRE FIGHTING MEASURES

Suitable extinguishing media:

Water fog, fine water spray, foam, dry chemical, carbon dioxide.

Special hazards arising from the chemical:

In a fire, irritant and toxic fumes containing oxides of carbon, nitrogen, phosphorus and sulphur, and other toxic substances may be generated.

Special protective actions for fire-fighters:

Fire fighters should wear full protective gear, including self-contained breathing apparatus. Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. Otherwise, use water spray to cool them. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of fire control water or others extinguishing agent and spillage safely later.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Use personal protective clothing.

Environmental precautions:

Do not allow to enter drains or waterways.

Methods and materials for containment and cleaning up:

Take up with absorbent material (eg sand, kieselguhr, universal binder). Pack for disposal in tightly closed containers.

7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with eyes, prolonged contact with skin, and inhalation of spray and fumes. Handle product with caution. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking or using the toilet. Remove clothing immediately if the herbicide gets inside. Then wash skin thoroughly using a nonabrasive soap and put on clean clothing. Operators should change and wash clothing after use.

Conditions for safe storage, including any incompatibilities:

Store in its original, labelled and closed container in dry, cool, shaded, well-ventilated area, away from heat, sparks and other sources of ignition. Keep out of reach of unauthorized persons, children and animals. Local regulations should be complied with.

Incompatible substances and mixtures: Refer to product label.

Packaging material: HDPE plastic containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment:

PERSONAL PROTECTIVE EQUIPMENT: Avoid contact with eyes and skin. Observe the usual precautions



when handling chemicals. Do not eat, drink or smoke during work time. Remove soiled clothing immediately.

Clean hands and face at work intervals and after work. Store work clothing separately.

EYE PROTECTION: Wear safety goggles or face shield.

SKIN PROTECTION: Protective clothing.

HAND PROTECTION: Chemical resistant gloves

EYE PROTECTION: Wear safety goggles or face shield.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color etc.):

Odor:

Odor threshold:

Yellow liquid
Slightly pungent
No data available

pH: 5.0-8.0

Melting point/freezing point: No data available No data available Initial boiling point and boiling range: Flash point: Approx. 60 °C **Evaporation rate:** No data available Flammability (solid, gas): Not Flammability Upper/lower flammability or explosive limits: No data available No data available Vapor pressure: Vapor density: No data available

Relative density: 1.11 g/ml Solubility(ies): Miscible.

Partition coefficient: n-octanol/water:No data availableAuto-ignition temperature:No data availableDecomposition temperature:No data availableViscosity:No data available

10. STABILITY AND REACTIVITY

Reactivity:

No decomposition up to 400 °C.

Chemical stability:

Stable under recommended storage conditions.

Possibility of hazardous reactions:

Evolution of ammonia under influence of alkalies.

Conditions to avoid:

No data available.

Incompatible materials:

No data available.

Hazardous decomposition products:

Ammonia.



11. TOXICOLOGICAL INFORMATION

Acute health effects:

The product is harmful if inhaled, swallowed and contact.

Numerical measures of toxicity:

Acute oral LD50: 973.3 mg/kg
Acute dermal LD50: 3099.8 mg/kg
Acute inhalation LC50: 4.7 mg/l
Eye Contact: Category 1
Skin Contact: Category 2

Skin Sensitization: Not a Sensitizer (Guinea Pig)

Reproductive toxicity

Specific target organ toxicity – Single

Specific target organ toxicity – Repeated

Category 1

Category 1

Category 1

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Bobwhite quail - Acute LD50 > 1100 mg/Kg
Rainbow trout - Acute 96 hour LC50 34 mg/L

Daphnia magna - Acute 48 hour EC50 > 26.8 mg/L

Desmodesmus subspicatus - Acute 72 hour > 36 mg/L

EC50

Bee - Contact 96 hour $> 345 \mu g$ Bee - inhalation 96 hour $> 600 \mu g$

Persistence and degradability:

No data available.

Bioaccumulative potential:

No data available.

Mobility in the soil:

No data available.

Other adverse effects:

Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

Safe handling of waste residues and disposal methods:

PRODUCT: In accordance with regulations for special waste, must be taken to an authorised special waste incineration plant.

UNCLEANED PACKAGING: Uncontaminated packaging may be taken for recycling. Packaging that cannot be cleaned should be disposed off as product waste.



14. TRANSPORT INFORMATION

UN number: 3082

Road Transport ADR/IRD:

Class: 9

Packaging group: III

UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE,LIQUID.N.O.S

Maritime Transport IMDG/IMO:

Class: 9

Packaging group: III

UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE,LIQUID.N.O.S

Marine Pollutant (Y/N): yes Air transport IATA/ICAO:

Class: 9

Packaging group: III

UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE,LIQUID.N.O.S

Special/Environmental Precautions: None known.

15. REGULATORY INFORMATION

The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

16. OTHER INFORMATION

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