



SAFETY DATA SHEET

PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: HARVEST DIFLUFENICAN 500 SC
 ACTIVE: **DIFLUFENICAN 500g/L**
 REGISTRATION HOLDER: HARVEST CROP SOLUTIONS (PTY) LTD.
 DISTRIBUTOR: HARVEST CHEMICALS (PTY) LTD.
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 3610
 REPUBLIC OF SOUTH AFRICA
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1. CHEMICAL PRODUCT

PRODUCT NAME: HARVEST DIFLUFENICAN 500 SC

PRODUCT USE: HERBICIDE

2. COMPOSITION/INFORMATION ON INGREDIENTS

Product	CAS No.
Diflufenican	83164-33-4
Ethylene glycol	107-21-1
WPJ	-----
Xanthan gum	11138-66-2
5% NaOH aqueous solution	1310-73-2
Dimethyl Silicone Oil	63148-62-9
1,2 Benisothiazolin-3-one	2634-33-5
Water	7732-18-5

3. HAZARDS IDENTIFICATION

GHS LABEL ELEMENTS:



SIGNAL WORD: Danger / Warning

HAZARDOUS STATEMENTS: Irritant, Harmful, Environmentally hazardous.

PRECAUTIONARY STATEMENTS:

Risk phrases:

R20/22: Harmful by inhalation and if swallowed.

R36/37/38: Irritating to the eyes, respiratory system and skin.

R50/53: Very toxic to aquatic organisms, and may cause long-term adverse effects in the aquatic environment.

Safety phrases:

S2: Keep out of reach of children

S13: Keep away from food, drink and animal feedstuff.

S20/21: When using do not eat, drink or smoke.

S24/25: Avoid contact with skin and eyes.

S35: This material and its container must be disposed of in a safe way.

S36/37: Wear suitable protective clothing and gloves

S38: In case of insufficient ventilation wear suitable respiratory equipment

S39: Wear eye/face protection.

S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)

S49: Keep only in the original container

S57: Use appropriate containment to avoid environmental contamination.

S61: Avoid release to the environment. Refer to special instructions/Safety data sheets.

S62: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

4. FIRST AID MEASURES

IF INHALED: Move the patient to fresh air. Keep patient warm and rested. If breathing is shallow or has stopped ensure the airway is clear and administer resuscitation. Call a physician or poison control centre immediately.

IF INGESTED: Rinse mouth. DO NOT induce vomiting and DO NOT give anything by mouth to an unconscious person. Prevent aspiration if vomiting occurs. Administer activated charcoal in a glass of water. Keep patient warm and at rest. If symptoms persist seek medical attention immediately.

IN CASE OF EYE CONTACT: Immediately flush with clean water for at least 15 minutes, holding eyelids open. If contact lenses are worn wash eyes for 5 minutes before removing the contacts and then continue washing eyes. Seek medical attention if irritation persists.

IN CASE OF SKIN CONTACT: Remove contaminated clothing. Wash affected area with soap and clean water. Wash contaminated clothing. Do not rub the affected area. Seek medical advice if irritation develops.

NOTE TO PHYSICIAN:

Treat symptomatically.

Gastric lavage is not normally required. If a significant amount has been ingested, administer activated charcoal and sodium sulphate.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Water spray, alcohol resistant foam, Carbon Dioxide or a dry chemical.

UNSUITABLE EXTINGUISHING MEDIA: Do not use a high volume water jet as this may cause a contamination risk.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS:

Remove spectators downwind and away from the affected area.

In the event of fire, wear self-contained breathing apparatus.

Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat.

Fight the fire from a maximum distance and use unmanned hose holder or monitor nozzles.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Do not allow run-off from firefighting to enter drains or water courses.

Wherever possible, contain fire-fighting water by diking area with sand or earth.

Do not allow water to come into direct contact with the product.

HAZARDS FROM COMBUSTION PRODUCTS: In the event of fire the following may be released: Carbon monoxide (CO)

Nitrogen oxides (NOx)

Hydrogen fluoride

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS AND PROTECTIVE EQUIPMENT:

When dealing with a spillage do not eat, drink or smoke.

Avoid contact with spilled product or contaminated surfaces.

Wear personal protective equipment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP:

Recover the product by pumping, suction or absorption using a dry and inert absorbent clay.

Wash contaminated area with water and detergent. Absorb any remaining waste for later disposal.

Collect and transfer the product into a properly labelled and tightly closed container for disposal. Do not get water inside the containers.

If spill enters waterways the local authorities should be contacted.

When picked up, treat product as prescribed in Section 13. "Disposal considerations"

Additional advice: Check also for any local site procedures.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:

Smoking, eating and drinking should be prohibited in the application area.

Avoid skin and eye contact, as well as inhalation of spray mist or fumes.

Wash before and after handling the product.

Do not directly apply to areas where surface water is present.

CONDITIONS FOR SAFE STORAGE:

Store in the original, clearly marked container.

Store in a cool, dry, well-ventilated place away from food, drink and animal feeding stuffs. Keep out of reach of children, uninformed persons and animals.

Protect from extreme temperatures.

Keep away from direct sunlight.

Protect from frost.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

APPROPRIATE ENGINEERING CONTROLS:

It is essential to provide adequate ventilation in the storage unit and in the handling area. Eye wash facility and safety shower should be available.

Appropriate measures for a particular worksite depend on how the material is used and the extent of exposure one is exposed to.

INDIVIDUAL PROTECTION METHODS:

Respiratory protection: A respirator is not normally required, but should there be the potential for exposure then a AS/NZ 1715/1716 approved respirator or organic cartridge respirator should be worn.

Hand protection: Elbow-length PVC or nitrile gloves

Face and Eye protection: Safety goggles or a full face shield is recommended.

Skin and body protection: Impervious overall buttoned to the neck and wrist.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Ashen flowable suspension liquid	Colour	Non flammable
Odour	Slight chemical odour	Flammability	
PH	(1% deion. Water): 5.0-8.0	Vapour pressure	
Melting point		Vapour density	
Boiling point		Solubility	
Flash point	Not flammable	Decomposition temperature	
Viscosity		Explosibility	Not explosive

10. STABILITY AND REACTIVITY

REACTIVITY:

CHEMICAL STABILITY:

POSSIBILITY OF HAZARDOUS REACTIONS:

CONDITIONS TO AVOID: Extreme temperatures and direct sunlight, store only in the original container

INCOMPATIBLE MATERIALS:

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition can lead to release of oxides of carbon, nitrogen oxides (NO_x) and Hydrogen fluoride.

THERMAL DECOMPOSITION: stable under normal conditions

HAZARDOUS REACTIONS: No hazardous reactions when stored and handled according to prescribe instructions.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Oral	rat	LD50 : > 5000 mg/kg
Dermal	rat	LD50 : > 5000 mg/kg
Inhalation	rat	LC50 : > 5.12 mg/ℓ

SKIN: Not a skin irritant in rabbits.

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EYE: Not an eye irritant in rabbits.

RESPIRATORY: Not a skin sensitiser in guinea pigs.

GENOTOXICITY: There is no concern about the genotoxic properties of Diflufenican.

CARGINOGENICITY: Diflufenican did not show any carcinogenic potential.

TERATOGENICITY: There was no teratogenicity effect.

MUTAGENICITY: Diflufenican was not mutagenic in a battery of in vitro and in vivo tests.

REPRODUCTIVE TOXICITY: Diflufenican did not cause reproductive toxicity in a two-generation study in rats.

DEVELOPMENTAL TOXICITY: Diflufenican did not cause developmental toxicity in rats and rabbits.

12. ECOLOGICAL AND ECOTOXICOLOGICAL INFORMATION

Toxicity

Birds	Quail	LD50: > 2150mg/kg
	Mallard Duck	LD50: > 4000mg/kg
Fish	Rainbow trout	LC50 (96h): 56 – 100 mg/ℓ
Daphnia		EC50:
Bees	Practically non toxic to honeybees	
Earthworm	Non-toxic to earthworms	

PERSISTANCE/DEGRADABILITY:

BIOACCUMULATIVE POTENTIAL:

MOBILITY IN SOIL:

OTHER ADVERSE EFFECTS:

13. DISPOSAL CONSIDERATIONS

Disposals: do not reuse product containers. Dispose of product containers and residues according to local, state and federal health and environmental regulations.

Containers should be triple rinsed with the volume of water equal to the minimum of 10% of that of the container. Add the rinsing's to the contents of the spray tank before disposal.

Once they are triple rinsed they can either be perforated and flattened, and then disposed of or recycled. Find a recycler near you on www.avcasa.co.za under the heading AVCASA Waste Management Programme.

No person/s shall dispose of this product or its container's by open burning or open dumping, unless authorised by the relevant authorities.

Do not pour surplus or untreated waste of this product into public waterways, sewers or any other area where there is danger of run-off or seepage into waterways or water systems.

Make sure all labels safeguards are adhered to.

14. TRANSPORT INFORMATION

UN NUMBER: 3082	PACKING GROUP: III
UN SHIPPING NAME: Environmentally hazardous substance, liquid, N. O.S (diflufenican).	SPECIAL PRECAUTIONS FOR USER:
CLASS: 9	HAZCHEM CODE:
SUBSIDARY RISK:	
SEA TRANSPORTATION	

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UN NUMBER: 3082	PACKING GROUP: III
UN SHIPPING NAME: Environmentally hazardous substance, liquid, N.O.S (diflufenican), marine pollutant.	SPECIAL PRECAUTIONS FOR USER:
CLASS: 9	HAZCHEM CODE:
SUBSIDIARY RISK:	
AIR TRANSPORTATION	
UN NUMBER: 3082	PACKING GROUP: III
UN SHIPPING NAME: Environmentally hazardous substance, liquid, N.O.S (diflufenican).	SPECIAL PRECAUTIONS FOR USER:
CLASS: 9	HAZCHEM CODE:
SUBSIDIARY RISK:	

15. REGULATORY INFORMATION

Registered in South Africa, under Act No. 36 of 1947, LXXXX.
Fungicide group code F1.

16. OTHER INFORMATION

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS and are presented in good faith and believed to be correct. This information applies to the product as such.

In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come into contact with the product.

If the recipient subsequently produces formulations containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.