

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: AG-ZONE 480 SL

Other identifier: AG-ZONE 480 SL

Recommended use: Herbicide

Restrictions on use: Agriculture

Supplier **Rolfes Agri (Pty) Ltd**

288 Mundt Street

Waltloo

Pretoria, South Africa

Telephone: +27(0)12 803 0145

E-mail Address: info@rolfesagri.co.za

Emergency Phone Numbers:

Office hour poisoning helpline

Rolfes Agri (Pty) Ltd +27 (12) 803 0145

Spill Response and Transport Incidents

Spill Tech, 086 100 0366, www.spilltech.co.za

Oil and chemical pollution control 083 253 6618

2. HAZARDS IDENTIFICATION

GHS classification and labelling of chemicals and the Regulations for Hazardous Chemical Agents - 2021.		
Hazard class	Hazard category	H-statement
Health Hazards		
Acute Toxicity; Oral	Category 4	H302
Skin Sensitization	Category 1	H317
Serious Eye Irritation	Category 2	H319
Environmental Hazards		
Hazardous to the Aquatic Environment – Long-Term (Chronic) Hazard	Category 3	H412

The most important adverse effects:

Physiochemical effects: None known.

Human health effects:

Harmful if swallowed (Acute Tox.4)

May cause allergic skin reaction (Skin sens.1)

Cause serious eye irritation (Eye Irrit.2)

Pictograms:



Signal word: Warning.

Hazard statements:

H302: Harmful if swallowed.

H317: May cause allergic skin reaction.

H319: Cause serious eye irritation.

H412: Harmful to aquatic life with long-lasting effects.

Precautionary statements:

P101: If medical advice is needed, have product container or label at hand.

P102: Keep out of reach of children.

P103: Read carefully and follow all instructions.

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

P264 + P265: Wash hands and affected area thoroughly after handling. Do not touch eyes.

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

P272: Contaminated work clothing should not be allowed out of the workplace.

P273: Avoid release to the environment.

P280: Wear safety goggles, and face shield when handling this product.

P321: Specific treatment (see first aid treatment on this SDS).

P330: Rinse mouth.

P301 + P317: IF SWALLOWED, get medical help.

P302 + P352: IF ON SKIN: wash with soap, and plenty of water.

P337 + P317: If eye irritation persists, get medical help.

P305 + P351 + P338: IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333 + P317: If skin irritation or rash occurs get medical help.

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

P501: Empty all pesticides from the container by placing it upside down over the spray tank and holding it there for at least 30 seconds. Puncture the rinsed container to render it useless and send to a recycler.

Special labelling of certain mixtures:

None known.

Other hazards:

None known.

Toxicity:

Classification according to GHS: Category 4.

3. COMPOSITION / INFORMATION ON INGREDIENTS**Ingredients with Hazard Concerns (GHS):** According to UN GHS criteria

Hazardous Component	CAS Number	Conc. (m/v) %	GHS Classification
Bentazone Sodium, Salts	50723-80-3	30 to 60%	Aquatic Chronic 3 (H412) Acute Tox. 4 (H302) Skin Sens. 1 (H317) Eye Irrit. 2 (H319)

4. FIRST AID MEASURES

General Advice: The symptoms resulting from direct exposure to the product could appear a while after exposure. If there is persistent discomfort, seek medical attention. Provide this SDS to medical personnel for treatment. Immediately remove contaminated clothing and remove the affected person from the contamination area. Keep the person warm, calm, and covered up. First Aid personnel should pay attention to their own safety.

Eye contact: IF IN EYES: rinse cautiously with large amount of water for at least 15-20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation occurs and persists.

Skin contact: IF ON SKIN: wash with plenty of water and non-abrasive soap. Take off contaminated clothing and wash it before reuse. Contact a poison control centre or medical practitioner if irritation occurs or persists.

Inhalation: Remove the affected victim from exposure to an area with fresh air as a precaution. If not breathing, administer artificial respiration—with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Obtain immediate medical attention.

Ingestion: Obtain immediate medical attention - call a poison control centre or medical practitioner immediately for treatment advice. If conscious, rinse mouth thoroughly with water. Never give anything by mouth to an

unconscious or convulsing person. Do not induce vomiting unless directed to do so by a medical professional. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomits, rinse mouth and administer more water.

Most important symptoms/effects, acute and delayed:

Symptoms of exposure to the product include Irritating to eyes and mucous membranes.

Notes to physician: None**Specific treatments:** Treat symptomatically and supportively.**5. FIRE FIGHTING MEASURES**

Suitable (and unsuitable) extinguishing media: For small fires, use carbon dioxide, dry chemical, alcohol resistant foam, or water spray. Do not use water jets.

Specific hazards arising from the chemical including thermal decomposition products: Fires involving the product may produce irritating or poisonous vapours, mists, or other products of combustion.

Special protective equipment and precautions for firefighters: Firefighters must wear emergency equipment including positive pressure self-contained breathing apparatus with a full-face mask. Remove unaffected containers from fire area if possible.

Additional provisions: Act in accordance with the site's Internal Emergency Plan and the Workplace Specific Procedures for actions to be taken after an accident or other emergencies.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment, and emergency procedures:**

Ventilate the area of the spill or leak, especially when in confined areas. Do not touch or walk through spilled material as slippery when spilt. Contain spills if it can be done without risk and clean-up immediately.

Wear appropriate protective clothing recommended in Section 8 of the SDS.

Environmental Precautions:

Prevent spillage or further leakage if safe to do so.

Do not allow the spilt product to enter water courses and drains and avoid contact with soil. Do not allow the spilt product to spread to other areas - keep the spilt material contained and isolated. Report spills and releases as required to appropriate authorities if the spilt product has caused environmental pollution (sewers, water ways, soil, or air).

Methods for cleaning up:

For small spills, soak up with damp earth or sand, or other non-combustible absorbent material. Place into a labelled waste container subsequent reclamation or disposal. Keep the wash water out of drains, sewers, and waterways.

For large spills, contain the spillage with absorbent material (non-combustible for flammable products). Sweep up with absorbent material, contain and collect spilt product in suitable containers for proper disposal. Keep the wash water out of drains, sewers, and waterways.

Reference to other sections:

See Section 1 for emergency contact information.
 See Section 8 for information on appropriate personal protective equipment.
 See Section 13 for additional waste treatment information.

7. HANDLING AND STORAGE REQUIREMENTS

Precautions for safe handling

Always provide good ventilation in the work area. Prevent contact with eyes, skin, and clothing. Wear protective clothing and equipment during handling as described in Section 8 of the SDS.

Do not eat or drink during use. Wash the hands and face thoroughly with water and soap after handling. Keep containers closed when not in use. Do not permit smoking in use or storage areas. Locate emergency showers and eye-rinsing facility near the work/handling area. Maintain good normal industrial hygiene and housekeeping practices in areas where the product is used/handled.

Conditions for safe storage, including any incompatibilities

Always store locked up and keep containers tightly closed when not in use. Store in a cool, dry, and well-ventilated place, out of direct sunlight. Check storage containers regularly for leaks and protect containers from physical damage. Store in the original container, avoid cross contamination with other agricultural products. Keep out of reach of children, uninformed persons, and animals. Do not contaminate water, food, or feed by storage or disposal.

It is recommended to have appropriate spill control kits equipped with absorbent material in close proximity to storage areas (see Section 6).

Specific end use(s)

Use as directed. Use original container.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

National Occupational Exposure Limits – Restricted limits for hazardous chemical agents.

Component	Type	Control Parameter	Update	Reference
Iso Propyl Alcohol	OEL-TWA	400 ppm	2021	South African RELs*
	OEL-STEL/C	800 ppm	2021	South African RELs*

National Biological Exposure Index (BEIs) for Hazardous Chemical Agents:

Component	Sample Matrix	Sample Time	Value
Iso Propyl Alcohol	Urine	End of shift at end of workweek.	40 mg/L

Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

PERSONAL PROTECTIVE EQUIPMENT:

Respiratory protection: Respiratory protection selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted and well-maintained particulate filter respirator, complying with an approved standard. Respirator selection and use should be based on contaminant type, form, and concentration. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Skin and Hand Protection: Select skin and hand protection based on the task being performed and the risks involved with the task. The gloves should be replaced immediately in case of damage or signs of wear. The personal protective clothing must be properly fitted and well maintained.

Eye/Face Protection: Select safety eye/face protection based on the task being performed and the risks involved with the task. Wear tightly fitted and well-maintained safety eyewear compliant with an approved standard.

Hygiene Measures: Wash the hands and face before breaks, eating, smoking, or using the lavatory and at the end of the shift/working period. Eye wash fountains and safety showers should be available and easily accessible. Wash contaminated clothing before reuse.

Environmental exposure controls

In accordance with the local legislation for the protection of the environment it is recommended to avoid environmental spillage or releases of both the product and its container.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/physical state: Liquid, Soluble

Odour: Clear brown.

Colour: Mild sweet.

Boiling Point: Not available.

Vapour Pressure (mm Hg): Not available.

Evaporation Rate: Not available.

Relative Vapour Density: Not available.

Partition coefficient n-octanol/water: Not available.

Solubility in water: Dispersible in water.

Decomposition temperature: Not available.

Melting point/freezing point: Not available.

pH: 8.5-9

Density/relative density(g/cm3): 1.19

Flammability: Not flammable.
Flash Point: Not applicable.
Flammable limits-LEL: Not applicable.
Upper/Lower flammability limit: Not applicable.
Auto-ignition temperature: Not applicable.
Viscosity: Not available.

10. STABILITY AND REACTIVITY

Reactivity: The product is stable under normal ambient conditions.

Chemical Stability: This 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: Under the specified conditions, hazardous reactions that lead excessive temperatures or pressure are not expected.

Conditions to Avoid: Avoid extreme temperatures, (>50°C). Keep away from heat and ignition sources.

Incompatible Materials: No information available.

Hazardous Decomposition Products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: Calculated.

Acute Toxicity Oral LD₅₀: >600 mg/kg

Acute Toxicity Dermal: Not classified.

Acute Toxicity Inhalation: Not classified.

Skin Corrosion/Irritation: Not classified.

Eye Damage/Irritation: Bentazone Sodium Salts and Iso Propyl Alcohol. Warning! According to the classification provided by companies to ECHA in CLP notifications this substance causes serious eye irritation. Category 2.

Skin Sensitization: Bentazone Sodium Salts. Warning! According to the classification provided by companies to ECHA in CLP notifications this substance is harmful and may cause an allergic skin reaction. Category 1

Respiratory Sensitization: Not classified.

Germ cell mutagenicity: Not classified.

Carcinogenicity: Not classified.

Reproductive toxicity: Not classified.

Specific target organ toxicity – single exposure: Not classified.

Specific target organ toxicity – repeated exposure: Not classified.

Aspiration hazard: Not classified.

Symptoms related to the physical, chemical, and toxicological characteristics.

Causes eye irritation, Skin sensitization.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA: Short-term (Acute) hazard Aquatic: Does not meet the GHS Classification criteria.

Long-term (Chronic) hazard Aquatic: Bentazone-Sodium 101.2 PPM

Crustacea Water flea Daphnia magna

9.83 PPM

Fishes Fathead minnow Pimephales promelas

Classified for Aquatic Acute Category 3

Fish: 101.2 mg/L.

Crustaceans: 9.83 mg/L.

Bio-degradability in the aquatic environment: No information available.

ENVIRONMENTAL EFFECTS:

Persistence and degradability: Low persistence in the soil. The half-life is less than 2 weeks. Bentazone reaches undetectable levels in the soil at 6 weeks after application. It is subject to breakdown by UV light from the sun and rapid degradation by soil bacteria and fungi.

Bio-accumulative Potential: No data available.

Mobility in soil: Bentazone does not bind to soil particles, and it is highly soluble in water, which usually suggest a strong potential for groundwater contamination. However, its rapid degradation is expected to prevent significant contamination of groundwater.

Other adverse effects: Empty all pesticides from the container by placing it upside down over the spray tank and holding it there for at least 30 seconds. Puncture the rinsed container to render it useless and send to a recycler. Do not use empty containers for any other purpose.

13. DISPOSAL CONSIDERATIONS

Waste handling and disposal: Dispose product related waste in accordance with all local regulations and prevent the contamination of water, food, or feed by storage or disposal of the waste. The product container/bags may be taken to a registered waste disposal site or incineration plant.

General container handling: Empty all pesticides from the container by placing it upside down over the spray tank and holding it there for at least 30 seconds. Puncture the rinsed container to render it useless and send to a recycler.

14. TRANSPORT INFORMATION

	Land Transport (ADR/RID)	Inland Waterways (AND/ADNR)	Sea Transport (IMDG)	Air Transport (ICAO-TI / IATA-DGR)
UN Number	Not Regulated	Not Regulated	Not Regulated	Not Regulated
UN Proper	-	-	-	-

Shipping Name					H302: Harmful if swallowed.
Transport Hazard Class	-	-	-	-	Skin Sensitization – Category 1 H317: May cause allergic skin reaction.
Transport Hazard Class Pictogram	-	-	-	-	Serious Eye Irritation – Category 2 H319: Cause serious eye irritation.
Packing Group	-	-	-	-	Hazardous to the aquatic environment, long-term hazards – Category 3 H412: Harmful to aquatic life with long lasting effects.

15. REGULATORY INFORMATION

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

South Africa

Regulations for Hazardous Chemical Agents – 2021 – SA Occupational Health and Safety Act. - Handling, labelling and Safety Data Sheets for hazardous and GHS classified substances and mixtures. Occupational Exposure Limits.

Hazardous Substances Act, 1973 (Act No.15 of 1973) - Requirements on the prohibition and control of the importation, manufacture, sale, use, operation, application, modification, disposal or dumping of hazardous substances. Occupational Health and Safety Act No. 85 of 1993.- Occupational Health and Safety Standards for employers and users working with and around hazardous chemical substances. National Road Traffic Act, 1996 (ACT NO. 93 of 1996). - The identification and classification of dangerous goods for transport by road and rail modes.

Botswana

Pesticides and Toxic Substances Regulations. 1994 (2006) - Control and management of pesticides and other toxic substances. Environmental and Pollution Control Act. 1990 - Hazardous waste disposal, hazardous substances, pesticides, and effluent wastewater/discharge.

Namibia

Labour Act 11 of 2007 - Hazardous substances classification, labelling, Chemical Safety Data Sheets and Occupational Exposure Limits. Notification of the use of carcinogens and other controlled substances.

Regulations relating to the Health and Safety of Employees at Work Government Notice 156 of 1997. Labour Act 11 of 2007 schedule, item 2(2). - Occupational Health and Safety Standards for employers and users working with and around hazardous chemical substances.

16. OTHER INFORMATION

Packaging: Packed in 5, 10,20 L Plastic drum or plastic bottles and labelled according to South African regulations and guidelines.

Relevant classification and H-Statements:

Acute Toxicity; Oral – Category 4

Key to Abbreviations

AND	European Provisions concerning the International Carriage of Dangerous Goods by inland Waterways
ADR	The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
COD	Chemical Oxygen Demand
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
IMDG	International Maritime Dangerous Goods
Log_{Pow}	Logarithm of the octanol/water partition coefficient
LD₅₀	Lethal Dose 50
LC₅₀	Lethal Concentration 50
RID	The Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
UN	United Nations

Notice to Reader

The information contained in this Safety Data Sheet relate only to the specific product and do not relate to the use of the product in combination with any other product or process. Information in the SDS is supplied to the best of **ROLFES AGRI (PTY) LTD's** knowledge and are believed to be current and correct as of the date on this SDS. All reasonable efforts were exercised to compile this SDS in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

The SDS only provides information applicable to the health, safety and environmental hazards of this product at the date of issue in order to facilitate the safe use, handling, storage and transport of this product and does not replace any product information or product specifications.

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hazards of the product during use, handlings, storage or transportation. Appropriate health, safety and environmental protection risk mitigating measures must be in place and such information must be communicated to all persons that might be involved with and exposed to this product.

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END OF SAFETY DATA SHEET