

SAFETY DATA SHEET

ACCORDING TO THE SOUTH AFRICAN REGULATIONS FOR HAZARDOUS
 CHEMICAL AGENTS - 2021

BENTAZONE 480 SL

Revised on / Version: 01/08/2022 / 0004
 Replaces Revision of / Version: 22/07/2022 / 0003

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SECTION 1: Product and Company Identification

Identification of the product/preparation

Product Name:	Bentazone 480 SL
Trade Name/Synonyms:	Bentazone 480 SL
Registration Number:	L7720
Product Description and Type:	A water soluble concentrate, selective contact herbicide for use as a post-emergence treatment on annual and perennial weeds.

Active Ingredient

Formula:	C ₁₀ H ₁₁ N ₂ NaO ₃ S
CAS Number:	50723-80-3

Supplier

Company Name: Rolfes Agri (Pty) Ltd
 Address: 288 Mundt Street
 Waltloo
 Pretoria
 South Africa
 Phone Number: +27(0)12 803 0145
 E-mail Address: info@rolfesagri.co.za

Emergency Phone Numbers

Nature of Emergency	Emergency Operator	Telephone Number
Office Hour Poisoning Helpline	Rolfes Agri (Pty) Ltd	+27 (12) 803 0145
Spill Response and Transport Incidents	Spill Tech, Oil and chemical pollution control	+ 27 (0) 86 100 0366 + 27 (0) 83 253 6618 www.spilltech.co.za



Relevant identified uses of the product and uses advised against

For use in Agriculture and use as per the product label.

SECTION 2: Hazards Identification**Classification of the substance or mixture**

This product is classified as hazardous according to the criteria in South Africa - GHS classification and labelling of chemicals and the Regulations for Hazardous Chemical Agents 2021.

Classification:

Hazard class	Category	Hazard Statement Number
Acute toxicity Oral	4	H302
Sensitization, Skin	1	H317
Serious Eye Damage/ Eye Irritation	2	H319
Hazardous to the aquatic environment, long-term hazards	3	H412

Label Elements

South Africa. GHS classification and labelling of chemicals and the Regulations for Hazardous Chemical Agents - 2021.

Pictograms:**Signal Word:**

Warning

Hazard Statements:

Statement Number	Hazard Statement
H302	Harmful if swallowed.
H319	Cause serious eye irritation.
H317	May cause allergic skin reaction.
H412	Harmful effects to aquatic life with long lasting effects.

Precautionary Statements:**Generation –**

Statement Number	Hazard Statement
P101	If medical advice is needed, have container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.

Prevention –

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

P264:	Wash affected area thoroughly after handling.
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.

Response -

Statement Number	Precautionary Statement
P321:	For eye contamination, flush eyes immediately with water. Irrigate each eye continuously with 0.9% saline (NS) during transport. If dermal or ocular irritation persists, medical attention should be obtained without delay.
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.

Disposal -

Statement Number	Precautionary Statement
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. Do not use empty containers for any other purpose.

Other Hazards

None Known.

SECTION 3: Composition/Information on Ingredients**Mixture**

Common Name:	Bentazone Sodium Salt.
IUPAC/Chemical Name:	sodium;2,2-dioxo-3-propan-2-yl-2λ ⁶ ,1,3-benzothiadiazin-1-id-4-one
Chemical Family:	
Formulation:	Bentazone 800 g/L

Ingredients with Hazard Concerns (GHS)

According to UN GHS criteria.

Hazardous Component	CAS Number	Weight - %	GHS Classification
Bentazone Sodium, Salts	50723-80-3	45.96	Aquatic Chronic 3 Acute Tox. 4 Skin Sens. 1 Eye Irrit. 2

NOTE: There are no other ingredients present according to the current knowledge of the supplier (condisering their concentrations present in the product) that are classified as

hazardous to health or the environment and that cause/contribute to the correct GHS classification of this product. These ingredients are therefore, in terms of the South African Hazardous Chemical Agent Regulations 2021; Regulation 14(b), not listed.

SECTION 4: First-Aid Measures

Description of 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 water for several 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 safety shower. 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.

Indication of any immediate medical attention and special treatment needed

Notes to physician: None

Specific treatments: Treat symptomatically and supportively.

SECTION 5: Firefighting 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 fire-fighters	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.

SECTION 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.

SECTION 7: Handling and Storage**Precautions for safe handling**

Always provide good ventilation in the work area. Prevent contact with eyes, skin and clothing. Do not breathe in dust/vapours/spray mists. 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 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.

SECTION 8: Exposure Controls and Personal Protection

Components with workplace control parameters – National Occupational Exposure Limits

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

*REL: Recommended Exposure Limit.
 OEL-eight hour TWA: Occupational Exposure Limit- Time Weighted Average. Calculated over an eight-hour working day, for a five-day working week.
 OEL-STEL/C: Occupational Exposure Limit – short Term Exposure Limit /Ceiling Limit. Peak airborne concentration determined over the shortest analytically practicable period of time, which does not exceed 15 minutes.

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.
General Safety and Hygiene Measures:	Wash the hands and/or 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.

SECTION 9: Physical and Chemical Properties

Data applicable to mixture.

Appearance	Appearance/physical state	Liquid, Soluble Concentrate.
	Odour characteristics	Clear brown.
	Colour	Mild sweet.
Volatility	Boiling point (°C)	Not measured.
	Vapour pressure (Pa)	Not measured.
	Evaporation Rate at 20 °C	Not measured.
Product Description	Relative density (kg/m ³ , relative density of water =1)	1.19 g/mL.
	Solubility in water (g/100mL)	Soluble in water.
	Decomposition temperature (°C)	Not measured.
	Melting point/freezing point (°C)	Not measured.
	pH	8.5-9
	Density/relative density (g/cm ³)	1.19 g/mL
	Particle characteristics	Not measured
Flammability	Flammable (Y/N)	Not flammable.
	Flash point (°C)	Not applicable.
	Flammable limits-LEL	Not flammable.
	Auto-ignition Temperature (°C)	Not applicable.

Other Hazard Information

None Known.

SECTION 10: STABILITY AND REACTIVITY**Reactivity**

The product is stable under normal ambient conditions.

Chemical Stability

Stable under normal ambient conditions of use, storage, and transport.

Possibility of Hazardous Reactions

None known under conditions of normal use.

Conditions to Avoid

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

Incompatible Materials

Incompatible with: Avoid strong oxidizing agents and acids.

Hazardous Decomposition Products

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

SECTION 11: Toxicological Information**Information on likely routes of exposure****Toxicokinetics, metabolism and distribution:**

Non-human toxicological data: No Information available.

Method: No Information available.

Dosage: No Information available.

Routes of administration: No Information available.

Results: No Information available.

Absorption: No Information available.

Distribution: No Information available.

Metabolism: No Information available.

Excretion: No Information available.

Information on toxicological effects:Acute toxicity:

Acute oral toxicity: Bentazone Sodium Salts.

LD50 (calculated): 600.44 mg/L for rats.

Category 3

Acute dermal toxicity: No information available.

Acute inhalation toxicity: No information available.

Skin corrosion/irritation: No information available.

Serious 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.

Respiratory or 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

Germ cell mutagenicity: No information available.

Carcinogenicity: No information available.

Reproductive toxicity: No information available.

STOT-single exposure: Does not meet the GHS Classification criteria.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

Symptoms related to the physical, chemical and toxicological characteristics

Causes eye irritation, Skin sensitization.

SECTION 12: Ecological Information**Ecotoxicity**

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.

Toxicity to other species

Birds: 11500 PPM (Mallard duck)

Other Environmental and Adverse Effects:

Persistence and Degradability: Bentazone-sodium.

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.

Bioaccumulative Potential:

No data available.

Mobility in Soil: Bentazone-Sodium.

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:

Bentazone has the potential to contaminate surface water because of both its mobility in runoff water from treated crops. Bentazone appears to be stable to hydrolysis, a chemical reaction with water. However, it has a half-life of less than hours in water because it is readily broken down by sunlight.

SECTION 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.

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. Do not use empty containers for any other purpose.

SECTION 14: Transport Information

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

Name				
Transport Hazard Class	-	-	-	-
Transport Hazard Class Pictogram	-	-	-	-
Transport Subsidiary Class	-	-	-	-
Packaging Group	-	-	-	-
Environmental Hazard	-	-	-	-

Not classified as dangerous goods.

SECTION 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.

SECTION 16: Other Information

Relevant classification and H-Statements (Number and full text):

Acute toxicity Oral

H302: Harmful if swallowed.

Serious Eye Damage/ Eye Irritation

H319: Cause serious eye irritation.

Sensitization, Skin

H317: May cause allergic skin reaction.

Hazardous to the aquatic environment, long-term hazards.

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

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.

It is not possible for ROLFES AGRI (PTY) LTD to anticipate or control all conditions under which this product may be used, handled, stored or transported. The obligation of the user, receiver, handler or transporter remains to review the content of the SDS prior to potentially exposing persons/employees to the product and to consider any risks that may associated with the hazards of the product during use, handling, 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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This document is intended only as a guide to the appropriate precautionary handling

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