SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: ACTICELL MANGO BOOST
Other identifier: ACTICELL MANGO BOOST
Recommended use: Fertilizer
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		
Skin Irritation	Category 2	H315
Reproductive Toxicity	Category 1B	H360

The most important adverse effects:
Physiochemical effects: None known.

Human health effects:
Causes skin irritation. (Skin Irrit. 2)
May damage fertility or the unborn child. (Repr. 1B)

Pictograms:

Signal word: Danger.

Hazard statements:
H315: Causes skin irritation.
H360: May damage fertility or the unborn child.

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.
P203: Obtain, read and follow all safety instructions before use.
P264: Wash hands and affected area thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302 + P352: IF ON SKIN: Wash with plenty of water.
P318: IF exposed or concerned, get medical advice.
P321: Specific treatment (see first aid on this SDS).
P332 + P317: If skin irritation occurs: Get medical help.
P362 + P364: Take off contaminated clothing and wash it before reuse.
P405: Store locked up.
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: Not classified

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients with Hazard Concerns (GHS): According to UN GHS criteria

Hazardous Component	CAS Number	Conc. (m/v) %	GHS Classification
Boric Acid	10043-35-3	<10%	Repr. 1B (H360)
Sulfur Tech	7704-34-9	10 – 30%	Skin Irrit. 2 (H315)

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: Flush eyes with large amount of flowing cold water for several minutes, until no evidence of chemical remains. If irritation persists, get medical help.
Skin contact: Remove all contaminated clothing and shoes. Gently wipe off residual chemical and wash skin thoroughly with water and non-abrasive soap. If irritation persists, get medical help.
Inhalation: Remove the affected victim from exposure to an area with fresh air. If breathing has stopped, administer artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If irritation persists, get medical help.
Ingestion: If exposed or concerned, rinse mouth thoroughly with large amount of water and get medical help.

Most important symptoms/effects, acute and delayed: No information available.
Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:
Use carbon dioxide, dry chemical for small fires and alcohol resistant foam or water fog for large fires. Do not use water jets.
Specific hazards arising from the chemical including thermal decomposition products: Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
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 Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

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 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

8.1 Control parameters

Substances whose occupational exposure limits have to be monitored in the work environment.

Exposure limit values

Great Britain - OEL EH40 2005 = 10 mg/m3 inhalable dust
OEL EH40 2005 = 4 mg/m3 respirable dust
Great Britain - OEL EH40 2005 = 4 mg/m3 respirable
OEL EH40 2005 = 10 mg/m3 inhalable

Relevant DNEL / DMEL values and NOAEL values are provided in the CSA, depending on the type of exposure for workers in an industrial setting and for the general public. As no acute toxic effects were observed, that would lead to a classification according to CLP, long-term DNEL value is considered sufficient to ensure that no effects occur following acute exposure to the substance.
No local effects were observed following dermal and inhalation exposure, therefore no DNEL values were derived for local effects.

Workers exposure

Long-term systemic effects - inhalation - DNEL: 10 mg/m3

Public exposure

Long term systemic effects - inhalation - DNEL: 10 mg /m3
- oral - DNEL: 6,1 mg /kg bw /day.

8.2 Exposure controls

Information concerning exposure control is provided in the Exposure scenarios elaborated by calcium carbonate.

Appropriate engineering controls:

No special ventilation requirements. 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/physical state: Suspension liquid.
Odour: Pungent odour.
Colour: Beige.
Boiling Point: > 100ºC.
Vapour Pressure (mm Hg): Not applicable.
Evaporation Rate: Not applicable.
Relative Vapour Density: Not applicable.
Partition coefficient n-octanol/water: Not applicable.
Solubility in water: Soluble in water.
Decomposition temperature: Not applicable.
Melting point/freezing point: Not applicable.
pH: 5.10
Density/relative density(g/cm3): 1.45
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: No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

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 excessive temperature.

Incompatible Materials: Incompatible with acids.

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: Not classified.
Acute Toxicity Dermal: Not classified.
Acute Toxicity Inhalation: Not classified.
Skin Corrosion/Irritation/: Causes skin irritation.
Eye Damage/Irritation: Not classified.
Skin Sensitization: Not classified.
Respiratory Sensitization: Not classified.
Germ cell mutagenicity: Not classified.
Carcinogenicity: Not classified.
Reproductive toxicity: May damage fertility or the unborn child.
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.
No information available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA: Sulfur

Birds: Oral LD_{50} Dietary LC_{50} (8d)	 Japanese quail Bobwhite quail	 >2000 mg/kg >5340 mg/kg
Fish: LC_{50}	 Rainbow trout	 >0.063 mg/ℓ
Daphnia: LC_{50} (48h)		 >0.0063 mg/ℓ
Algae: E_bC_{50} and E_rC_{50} (72h)	*Scenedesmus subspicatus*	0.002 mg/ℓ
Bees: (LD_{50}, µg/bee)	-	Non-toxic
Worms: LC_{50} (14d)	Eisenia fetida	>985 mg/kg

ENVIRONMENTAL EFFECTS:
Persistence and degradability: Insoluble in water, no leaching potential into groundwater. When oxidised to sulfate, its contribution as sulfate ions from pesticidal sources is negligible in comparison with the natural occurrence of sulfates in soil and water.
Bio-accumulative Potential: Not expected.
Mobility in soil: Not available.
Other adverse effects: According to the criteria of the European classification and labelling system, the substance does not require classification as hazardous for the environment.

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/bottles 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	-	-	-	-
Transport Hazard Class	-	-	-	-
Transport Hazard Class Pictogram	-	-	-	-
Packing Group	-	-	-	-

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 0,1; 0,2; 0,25; 0,5; 1; 5; 10; 20; 25; 200; 210 and 1000 L plastic containers or plastic bottles and labelled according to South African regulations and guidelines.

Relevant classification and H-Statements:
Skin Irritation - Category 2
H315: Causes skin irritation.

Reproductive Toxicity – Category 1B
H360: May damage fertility or the unborn child.

Key to Abbreviations

AND	European Provisions concerning the International Carraige od Dangerous Goods by inland Waterways
ADR	The European Agreement concerning the International Carraige 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
LD_{50}	Lethal Dose 50
LC_{50}	Lethal Concentration 50
RID	The Regulations concerning the International Carraige 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, 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, 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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