

PRINT DATE :
REVISION DATE : 2024.04.11
VERSION : 1.0 / EN (New Zealand)



SAFETY DATA SHEET

according to ST/SG/AC.10/30/REV.10

Avo-To-Grow™

SECTION 1: Identification of the substance and of the company

1.1 Product identifier:

Mixture

Mixture name : Avo-To-Grow™
Other means of identification : Not applicable
Hazard components for labelling : Boric Acid, Zinc Sulphate

1.2 Relevant Identified uses

Relevant identified uses : Fertilizer
Uses advised against : Not for consumption

1.3 Details of the supplier of the safety data sheet

Supplier

Name : Agri Technovation (Pty) Ltd
Address : Agri Business Park, 5 Louw Street,
Wellington Industrial Area
South Africa
7654
Telephone : (+27) 21 300 0543
(+64) 27 620 0567
E-Mail : product.info@agritechnovation.co.za

1.4 EMERGENCY TELEPHONE NUMBER

National Poisons and Hazardous Chemicals Information Centre
Dunedin Phone: 0800 POISON (0800 764-766)
24 hr Emergency Response: 0800 CHEMCALL (0800 243 622)

SECTION 2: Hazard identification

2.1 Classification of the substance

Classification according to ST/SG/AC.10/30/REV.10	Classification procedure
Reproductive toxicity, Category 1B	Based on concentration threshold.
Hazardous to the aquatic environment, Acute, Category 1	Based on concentration threshold.

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Hazardous to the aquatic environment, Chronic, Category 1	Based on concentration threshold.
Serious eye damage, Category 1	Based on concentration threshold.
Acute toxicity, Category 4, Oral	Based on concentration threshold.

Additional information:

None

2.2 Label elements

Labelling according to ST/SG/AC.10/30/REV.10

Hazard pictograms



Signal word:

Danger

Hazard statements:

May be harmful if swallowed. Causes eye irritation. May damage fertility or the unborn child.

Precautionary statements:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye, and face protection. IF exposed or concerned: Get medical advice or attention. Store locked up. Dispose of contents or container in accordance with national regulations. If skin irritation occurs: Get medical advice or attention. Wash hands thoroughly after handling. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Supplemental Hazard information:

None.

Special rules for supplemental label elements for certain mixtures:

Not applicable.

Additional labelling:

Keep out of reach of children.

2.3 Other hazard

None known.

SECTION 3: Composition/ Information on ingredients

3.1 Substances

Boric Acid, Zinc Sulphate Monohydrate

Hazardous ingredients

Substance name	CAS No.	Concentration	Classification according to ST/SG/AC.10/30/REV.10
Boric Acid	10043-35-3	<1.0%	Reproductive toxicity, Category 1B.

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Zinc Sulphate		<1.0%	Skin irritation, Category 2B; Eye irritation Category 3; Acute toxicity Category 5, Oral.
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This mixture does not, within the current knowledge of the supplier, contain further substances above their cut-off concentration limit fulfilling the criteria of hazard classes according to the ST/SG/AC.10/30/REV.10 regulation or present a health risk below the cut-off concentration limit. Substances that do not fall within classification criteria are not specified in this document to protect confidentiality.

Additional information:

None known.

SECTION 4: First aid measured

4.1 Description of first aid measures

General information

Take precautions to ensure your own safety when helping another person. Always wear appropriate personal protective equipment (see Section 8). If medical advice is needed, have Safety Data Sheet or product label at hand and provide medic treatment already administered.

Following inhalation

IF exposed or concerned: Get medical advice/attention.

Following skin contact

Rinse with lukewarm, gently flowing water (and mild soap) for 10 to 20 minutes or until product is removed. If skin irritation occurs or you feel unwell: Get medical advice.

Following eye contact

Remove person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing. Take care not to rinse contaminated water into the unaffected eye or onto the face.

Following ingestion

Rinse mouth. If breathing has stopped, trained personnel should begin rescue breathing or, if the heart has stopped, immediately start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED).

4.2 Most important symptoms and effects, both acute and delayed.

No information available on this product.

4.3 Indication of any immediate medical attention and special treatment needed.

No information available on this product.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Substance is non-combustible. Select fire fighting measures according to the surrounding conditions.

5.2 Special hazards arising from the substance or mixture

In the case of inclusion in an ambient fire hazardous substances, such as sulphur oxides can be released.

5.3 Advice for fire-fighters

Wear self-contained breathing apparatus and special tightly sealed suit.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures

Protective equipment

Wear eye protection, hand protection and body protection. See section 8.2 of this SDS.

Emergency procedures

Evacuate all individuals. Warn surrounding areas. Isolate the area. Put protective measures in place. Only individuals with suitable personal protective equipment should be allowed into the affected area. Remove the source if safe to do so and provide adequate ventilation in closed spaces. Pick up without creating dust. Afterwards ventilate area and wash spill area.

6.2 Environmental precautions

Low hazard to waters. Inform the responsible authorities when very large quantities get into water, drainage, sewer or the ground.

6.3 Methods and material for containment and cleaning up

For containment

Use suitable closed, labelled containers for disposal in accordance to national and local regulations.

For cleaning up

Use suitable protective equipment while cleaning, if necessary. See section 8.2 of this SDS. Wipe clean with cloth or paper towel. Tested industrial vacuum cleaner or suction device can be used as alternative. The use of a blower for cleaning is not recommended. Avoid dust formation. Dust formation that cannot be avoided must be collected regularly. Only work with vessels and lines after they have been thoroughly rinsed.

6.4 Reference to other sections

See section 8.2 for information on personal protective.

See section 13 for disposal methods.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

Heed advice on general occupational hygiene. Fill only into clearly marked containers. Label containers and pipelines clearly. Do not leave container open. Avoid rising dust. If release cannot be prevented, then it should be suctioned off at the point of exit. Provide good ventilation in work areas. Washing facility at the workplace is required. The locations must be sign posted.

Fire preventions

Substances is non-combustible. Fire equipment must be available.

Environmental precautions

Dispose in accordance with national and local regulations.

Advice on general occupational hygiene

Take care to keep workplace clean and dry. Wear personal protective equipment. Wash skin with soap and water before breaks and at the end of work and apply fatty skin-care products after washing. Foods, beverages, and other articles of consumption must not be consumed at the work areas. Suitable areas are to be designated for these purposes. Remove contaminated clothing and protective equipment before entering eating areas.

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7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Store and transport in closed containers at room temperature.

Requirements for storage rooms and vessels

Do not use any food containers to prevent a mistake. Containers must be labelled clearly and permanently. Keep container tightly closed in a dry and well-ventilated place. Avoid contamination with other materials.

Packaging materials

Glass, PE, PP and PVC.

Materials to avoid

Pharmaceuticals, foods, and animal feeds including additives; Infectious, radioactive, and explosive substances; Strongly oxidizing substances of storage class 5.1A.

7.3 Specific end uses

See section 1.2. No additional information.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

This mixture does not, within the current knowledge of the supplier, contain substances above their cut-off concentration limit fulfilling the criteria of hazard classes according to the ST/SG/AC.10/30/REV.10 regulation or present a health risk below the cut-off concentration limit other than the raw materials listed in the SDS. Substances that do not fall within classification criteria are not specified in this document to protect confidentiality.

8.2 Exposure controls

Appropriate engineering controls

All ventilation should be designed in accordance with OSHA standard. Use local exhaust at filling zones and where leakage and dust formation are probable. Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below limits.

Components with occupational exposure limits

None

Personal protective equipment

Eye / Face protection

Wear glasses with side protection.

Skin protection

Hand protection

Suitable gloves type

The use of resistant protective gloves is recommended. Skin protection cremes do not protect as effectively against the substance as protective gloves.

Suitable material

- Natural rubber/Natural latex (0.5 mm) (use non-powdered and allergen free products)
- Polychloroprene (0.5 mm)
- Nitrile rubber/Nitrile latex (0.35 mm)
- Butyl rubber (0.5 mm)
- Fluoro carbon rubber (0.4 mm)

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- Polyvinyl chloride (0.5 mm)

In case of doubt contact the gloves' manufacturer.

Wear duration with occasional contact (splash): 8 hours

Be aware that liquids may penetrate gloves. Frequent change is advisable.

Body protection

Wear an overall or a lab coat

Respiratory protection

In an emergency (e.g.: unintentional release of the substance) respiratory protection must be worn. Wear respiratory protection during operations where spraying or misting occurs.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid **Color** : Light brown
Odor : No specific odor. **Odor threshold** : No data available.

	Value
pH (5% Solution)	3.6 – 4.0
Melting point/freezing point	Not available.
Initial boiling point/boiling range	Not relevant.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Not relevant.
Vapor pressure	Not relevant.
Vapor density	Not available.
Solubility(ies)	100%
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	100°C
Viscosity	Not available.
Explosive properties	Not relevant.
Oxidizing properties	Not available.

9.2 Other information:

None.

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product.

10.2 Chemical stability

None known.

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10.3 Possibility of hazardous reactions

None known.

10.4 Conditions to avoid:

None known.

10.5 Incompatible materials:

None known.

10.6 Hazardous decomposition products:

None known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Main routes of exposure:

No data available for occupational handling.

Acute toxicity :

This mixture does not, within the current knowledge of the supplier, contain substances above their cut-off concentration limit fulfilling the criteria of hazard classes according to the ST/SG/AC.10/30/REV.10 REGULATION or present a health risk below the cut-off concentration limit.

Hazard classification

Classification	Hazard Description
Acute toxicity	Based on available data and classification criteria of ST/SG/AC.10/30/REV.10, the mixture can be classified as skin acute toxicity, Category 5, Oral.
Skin corrosion/irritation	Based on available data and classification criteria of ST/SG/AC.10/30/REV.10, the mixture can be classified as skin corrosion, Category 3.
Serious eye damage/irritation	Based on available data and classification criteria of ST/SG/AC.10/30/REV.10, the mixture can be classified as eye damage/irritation, Category 2B.
Respiratory sensitization	Based on available data, the classification criteria are not met.
Skin sensitization	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT – single exposure	Based on available data, the classification criteria are not met.
STOT – repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Not classifiable due to data lacking.

Other information:

Main toxic effects

Acute effects:

No information on the product.

Chronic effects:

Reproductive toxicity.

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SECTION 12: Ecological information

12.1 Toxicity:

Aquatic toxicity

No information available on this product.

Assessment / Classification

Classification is not mandatory.

12.2 Persistence and degradability

Not classifiable due to data lacking.

12.3 Bio accumulative potential

Not classifiable due to data lacking.

12.4 Mobility in soil

Not classifiable due to data lacking.

12.5 Results of Persistent, Bioaccumulating and Toxic and very Persistent and very Bioaccumulating assessment

Not classifiable due to data lacking.

12.6 Other adverse effects:

None known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

If there is no way of recycling it must be disposed of in compliance with the respective national and local regulations.

Collection of small amounts of product:

Do not put waste into sink or dust bin. Collect in container. Collection vessels must be clearly labelled with a systematic description of their contents. Store the vessels in a well-ventilated location. Entrust them to the appropriate authorities for disposal.

SECTION 14: Transport information

UN Number: Not applicable

UN Proper shipping name: Not applicable

Transport hazard class: Not regulated as a dangerous good.

Packaging group: Not regulated as a dangerous good.

Environmental hazards: Not regulated as a dangerous good.

Transport in bulk according to IMO instrument: Not available.

DOT: Not regulated as a hazardous material by DoT.

IATA: Not regulated as a dangerous good.

IMDG: Not regulated as a dangerous good.

Special precautions for user

None known.

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SECTION 15: Regulatory information

15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture

GHS: ST/SG/AC.10/30/REV.10.

15.2 Chemical Safety Assessment

No chemical safety assessment was completed for this product.

SECTION 16: Other information

16.1 Indication of changes

First revision

16.2 Abbreviations and acronyms

ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (division of the American Chemical Society)
DoT	Department of Transportation
EC50	Half maximal effective concentration
GHS	Globally Harmonised System
IATA	International Airport Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Lethal concentration required to kill 50% of the population

16.3 Key literature references and sources for data

GESTIS Substance database [WWW Document], n.d. URL [http://gestis-en.itrust.de/nxt/gateway.dll/gestis_en/000000.xml?f=templates\\$fn=default.htm\\$vid=gestiseng:sdbeng\\$3.0](http://gestis-en.itrust.de/nxt/gateway.dll/gestis_en/000000.xml?f=templates$fn=default.htm$vid=gestiseng:sdbeng$3.0) (accessed 12.3.24).

16.4 Classification for mixtures and used evaluation method according to ST/SG/AC.10/30/REV.10

Classification based on calculation or concentration thresholds. See SECTION 2.1 (classification).

16.5 Relevant H-phrases (number and full text)

None

16.6 Training advice

Not relevant.

16.7 Further information

This safety data sheet summarizes to the best of our knowledge at the date of issue, the chemical health and safety hazards of the product and general guidance on how to safely handle the material in the workplace.