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REVISION DATE : 24.05
VERSION : 1.0 / EN (South Africa)



SAFETY DATA SHEET

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

GRAPE-TO-GROW™

SECTION 1: Identification of the substance and of the company

1.1 Product identifier:

Mixture

Mixture name : GRAPE-TO-GROW™

Other means of identification : Not applicable

Hazard components for labelling : Boric acid

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 : 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 toxicant, category 1B | Based on concentration threshold. |

Additional information:

None

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2.2 Label elements

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

Hazard pictograms



Signal word:

Danger

Hazard statements:

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 protection and face protection. IF exposed or concerned, get medical advice. Store locked up. Dispose in accordance with national regulations.

Supplemental Hazard information:

No supplementary hazard information.

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

Not applicable.

3.2 Mixture

Description of the mixture:

Dry blend of inorganic and organic powders containing nitrogen, phosphorus, potassium, sulphur, magnesium, zinc, boron, iron, copper and molybdenum.

Hazardous ingredients

| Substance name | CAS No. | Concentration | Classification according to ST/SG/AC.10/30/REV.10 |
|----------------|------------|---------------|---|
| Boric Acid | 10043-35-3 | <5% | Reproductive toxicant, category 1B. |

NOTE: There are no other ingredients present according to the current knowledge of the supplier (considering 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 Regulations 2021; Regulation 14(b), not listed.

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Additional information:

This mixture does not contain further substances fulfilling the criteria of hazard class "acute toxicity" according to the ST/SG/AC.10/30/REV.10 regulation.

SECTION 4: First aid measures

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

Gently brush product off face. Do not rub eyes. Let the eyes water naturally for a few minutes. Look right and left, then up and down. If particle/dust does not come out, cautiously rinse eyes with lukewarm, gently flowing water for 5 to 10 minutes or until dust is removed, while holding eyelids open. If eye irritation persists: Get medical attention. Do not attempt to manually remove anything from the eyes. IF exposed or concerned: Get medical advice or attention.

Following ingestion

If exposed or concerned: Get medical advice or attention.

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

Mixture does contain combustible substances, but there is no additional information about the combustion behaviour. Select fire and explosion prevention measures according to surrounding conditions.

5.2 Special hazards arising from the substance or mixture

Mixture contains substances with oxidizing effects. In the case of inclusion in an ambient fire the following hazardous substances can be released: Boron oxide, Sulphur oxides, Magnesium oxide, Nitrous gases (nitric oxides), Phosphorus oxides, Metal oxide fumes, Carbon monoxide and Carbon dioxide,

5.3 Advice for fire-fighters

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures

Protective equipment

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

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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. Use a tested industrial vacuum cleaner or suction device. Do not raise dust while cleaning. Use of a blower for cleaning is not permitted. Alternative: clean damp. Only conduct maintenance and other work on or in the vessel or closed spaces after obtaining written permission. 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

Fire equipment must be available.

Keep away from open flame. Do not smoke in working area. Do not weld in working area. Keep away from combustible materials.

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.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Store and transport in closed containers at room temperature.

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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; Flammable liquids; Explosive substances; Strongly oxidizing substances; Ammonium nitrate and preparations containing ammonium nitrate; Organic peroxides and self-reactive substances.

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 further substances other than those listed, 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.

8.2 Exposure controls

Appropriate engineering controls

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 TLV & PEL limits.

Components with occupational exposure limits

Boric acid

Personal protective equipment

Eye / Face protection

Wear glasses with side protection.

Skin protection

Hand protection

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

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : White powder **Colour** : Predominantly white

Odour : No specific odour. **Odour threshold** : No data available.

| | Value | Method | Temperature | Pressure | Remark |
|---|---------------------------|--------|-------------|----------|--------|
| pH (5% solution) | 4.5 – 4.9, tested at 20°C | | | | |
| 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. | | | | |
| Relative density | Not available. | | | | |
| Solubility(ies) | Not available. | | | | |
| 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.

10.3 Possibility of hazardous reactions

Risk of explosion when in contact with acetic anhydride (heat).

10.4 Conditions to avoid:

None known.

10.5 Incompatible materials:

None known.

10.6 Hazardous decomposition products:

May include: Boron trioxide; Sulphur dioxide, Ammonia and Phosphorus oxides.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Main routes of exposure:

No data available for occupational handling.

Acute toxicity :

Data for hazardous substances

The 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 information

No other information.

Assessment Classification

Based on available data, the classification criteria according to ST/SG/AC.10/30/REV.10 are not met.

Hazard classification

| Classification | Hazard Description |
|-------------------------------|--|
| Acute toxicity | Based on available data, the classification criteria are not met. |
| Skin corrosion/irritation | Based on available data, the classification criteria are not met. |
| Serious eye damage/irritation | Based on available data, the classification criteria are not met. |
| 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 and classification criteria of ST/SG/AC.10/30/REV.10, the mixture can be classified as a Reproductive toxicant, category 1B. |
| 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:

No information on the product.

SECTION 12: Ecological information

12.1 Toxicity:

Aquatic toxicity

Not applicable.

Assessment / Classification

Classification is not mandatory.

12.2 Persistence and degradability

Not classifiable due to data lacking.

12.3 Bio accumulative potential

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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.

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

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| | |
|------|---|
| 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

C&L Inventory - ECHA [WWW Document], n.d. URL <https://echa.europa.eu/information-on-chemicals> (accessed 6.5.24).

GESTIS Substance database [WWW Document], n.d. URL <https://gestis-database.dguv.de/> (accessed 6.5.24).

HAZARD COMMUNICATION: Hazard Classification Guidance for Manufacturers, Importers, and Employers, n.d.

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.