



SAFETY DATA SHEET

MYCOAPPLY® ENDOPRIME™

Revision Date: 27/09/2022
Revision Number: 01

1. PRODUCT AND COMPANY IDENTIFICATION

Identification of the product/preparation

Product Name:	MYCOAPPLY® ENDOPRIME™
Registration Number:	M480
Product code:	VBC-80165 / MA-10075
Product use:	Bio-Fertilizer (agricultural use)

Active Ingredient

Rhizophagus irregularis; Claroideoglomus luteum; Claroideoglomus claroideum; Claroideoglomus etunicatum
CAS Number: N/A

Manufacturer

Company Name:	MYCORRHIZAL APPLICATIONS, LLC
Address:	710 NW E Street Grants Pass, OR 97526, USA

Supplier

Company Name:	PHILAGRO SOUTH AFRICA (PTY) LTD
Address:	1 st Floor, The Corner Office 410 Lynnwood Road LYNNWOOD RIDGE 0040
Telephone:	+27(0) 12 348 8808
Fax:	+27(0) 12 348 3500
E-mail Address	info@philagro.co.za

Emergency Telephone Numbers:

Medical information in case of poisoning

Griffon Poison Information Centre:	+27(0) 82 446 8946
Tygerberg Hospital Poison Centre:	+27(0) 86 155 5777

Relevant identified uses of the product and uses advised against

Endomycorrhizal fungi mixture in an SC formulation for use on crops as indicated on the product label.

The product should not be used for any other purpose or in any other manner contrary to the information supplied on the product label.

2. HAZARD 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 – SANS10234 and the Regulations for Hazardous Chemical Agents - 2021.

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Classification

HAZARD CLASS

Serious Eye Damage/Irritation

CATEGORY

1

HAZARD STATEMENT NUMBER

H318

Label Elements

South Africa. GHS classification and labelling of chemicals – SANS10234, and the Regulations for Hazardous Chemical Agents - 2021.

Pictogram/s:



Signal Word:

Danger

Hazard Statements:

H318 Causes serious eye damage

Precautionary Statements:

General

- 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.

Prevention

- P264+P265 Wash hands and face thoroughly after handling.
- P280 Wear eye protection/face protection.

Response

- P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P317 Get medical help.

Disposal

- P501 Dispose of contents or container to an approved waste disposal facility and in accordance with national regulations.

Other Hazards

None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Trade Name:

MYCOAPPLY® ENDOPRIME™

IUPAC/Chemical Name (active ingredient):

Rhizophagus irregularis; *Claroideoglossus luteum*; *Claroideoglossus claroideum*; *Claroideoglossus etunicatum*

Molecular Formula:

N/A

Formulation:

Suspension Concentrate



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Ingredients with Hazard Concerns (GHS):

According to UN GHS criteria.

Hazardous Component	CAS Number	Weight - %	GHS Classification
Dowfax 3B2 Solution Surfactant	Product mixture	5%	Serious Eye Damage/Irritation - Category 1.
Other ingredients	Trade Secret	95%	Not classified

NOTE 1: The other ingredients not included above, do not cause or contribute towards the correct GHS classification of ENDOPRIME™ and is therefore, in terms of the South African Regulations for Hazardous Chemical Agents - 2021; Regulation 14(b), not listed.

4. FIRST AID MEASURES

Description of First-Aid Measures

General Advice In all cases of doubt, seek medical attention.

Eye Contact Remove from source of exposure. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists or signs of toxicity occur, seek medical attention.

Skin Contact Remove from source of exposure. Wash with plenty of water. If skin irritation or rash occurs get medical advice/attention. If irritation persists or sign of toxicity occur, seek medical attention.

Inhalation Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. If person is not breathing, call 911, then give artificial respiration.

Ingestion Remove from source of exposure. Move person to fresh air. If signs of toxicity occur, seek medical attention. Provide symptomatic /supportive care as necessary.

Medical Advice

No specific antidote. Treat symptomatically and supportive.

Most important symptoms/effects, acute and delayed

Acute: None known. Treat with caution. No information on acute adverse effects.

Delayed: None known. Treat with caution. No information on acute adverse effects

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media Dry chemical and carbon dioxide, alcohol resistant foam, sand, water fog or fine spray. Do not use high volume water jets due to potential contamination.
If water is used for firefighting, dike and collect water to prevent run-off from the site.

Specific hazards arising from the chemical Harmful substances in the water runoff from fire control may have adverse environmental and biological effects. Carbon oxides, nitrogen oxides, ammonia.

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



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precautions for fire-fighters

possible. Keep fire exposed containers cool by spraying with water. Evacuate the area and fight the fire upwind and from a safe distance to avoid exposure to hazardous combustion products and the inhalation of hazardous vapours and fumes from burning material. Avoid pollution of waterways by run-off from the site. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local and national regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Do not breathe in vapours/mist/fumes and avoid contact with eyes, skin and clothes. Ventilate the area of the spill, especially when in confined areas. Do not touch or walk through spilled material. Contain spills if it can be done without risk. Wear appropriate protective clothing recommended in Section 8 of the SDS.

Environmental precautions

Prevent further spillage 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

In case of spill (liquid) soak it up immediately with suitable absorbent, such as sawdust or granular absorbent clay. Sweep up and place into sealable containers. Dig up heavily contaminated soil and place into drums. Use a damp cloth to clean floors and other objects, and also place in sealable container. Dispose of all waste and contaminated clothing in the same manner as waste chemicals (i.e., via an authorized disposal facility). Do not wash residues into drains or other waterways.

7. HANDLING AND STORAGE

Precautions for safe handling

Read the label before use. Use in a well-ventilated area (preferably outdoors). Prevent contact with eyes, skin, and clothing. Do not breathe in vapours/mist/fumes. Wear protective clothing and equipment during handling as described in Section 8 of the SDS. If clothing gets contaminated with the product, change to clean clothing promptly. Do not eat, drink, or smoke while handling the product. Wash hands and face thoroughly with soap and water after use. Keep containers closed when not in use. 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

The entrance to storage facilities should be granted only to appropriately trained personnel. Always store locked up and keep containers tightly closed. Store in the original, closed container. The formulation is stable if stored well ventilated, cool, and free of moisture and high humidity. Store below 30°C. Keep away from source of ignition. Keep out of reach of children, uninformed persons, and animals. Protect containers from physical damage. Check the condition of storage containers periodically. Do not store with seed, fertilisers, or foodstuffs to prevent contamination.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION



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Occupational Exposure Limits

Occupational exposure limits have not been established.

Appropriate engineering controls

Use with general or adequate local exhaust ventilation to maintain airborne concentrations as low as possible. Ensure adequate ventilation in confined areas. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal Protective Equipment

Respiratory Protection	None required for normal use. For operations where the dust concentration may be excessive, a dust respirator may be used.
Skin and Hand Protection	Impervious gloves, coveralls, apron, shoes, and socks are required to prevent skin contact and contamination of personal clothing. Wash gloves when contaminated and dispose of and replace immediately when contaminated inside, when perforated, when contamination on the outside cannot be removed or when signs of damage.
Eye/Face Protection	Wear goggles, safety glasses with side shields or full-face shield when dust concentration may be excessive.
General Safety and Hygiene Measures	Handle the product in accordance with good industrial hygiene and safety practice. An eye wash fountain and safety showers should be available and easily accessible. Avoid contact with the skin, eyes and clothing and immediately remove all contaminated clothing. Wash the hands and/or face before breaks and at the end of the shift.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/physical state	Suspension Concentrate (liquid)
Odour characteristics	Not determined
Colour	Tan
Relative Density (g/ml)	1.03 – 1.06 g/ml
Solubility in water (g/100mL) @ 20°C	Not determined
Flammability	Not determined
Flash point (°C)	Not determined
Flammable limits-LEL	Not determined
Vapour pressure (mPa) at 25°C	Not applicable
Decomposition temperature (°C)	Not determined
Boiling point range(°C)	Not determined
Melting point (°C)	Not determined
pH (at 20 ± °C)	Not determined
Auto-ignition temperature (°C)	Not determined
Particle characteristics	No data available
Bulk density	Not available
Partition coefficient and 20°C:	Not applicable
Viscosity	464 cP @ 30°C
Explosive properties	Not explosive
Oxidizing Properties	Not oxidizing



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10. STABILITY AND REACTIVITY

Reactivity

The product is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Chemical Stability

Hazardous polymerization will not occur. Stable for 2 years under recommended storage and handling conditions.

Possibility of Hazardous Reactions

None known under conditions of normal use.

Conditions to Avoid

Avoid extreme temperatures, storage without ventilation, moisture (humidity) or direct sunlight.

Incompatible Materials

Avoid contact with strong acids, strong bases and strong oxidizers.

Hazardous Decomposition Products

Does not decompose when used for intended uses. Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems. Can include, but not limited to carbon monoxide, carbon dioxide and sulfur oxides.

11. TOXOLOGICAL INFORMATION

Information on likely routes of exposure

Based on available data, no classification criteria are met for any of these hazard classes. This product is for agricultural use, therefore, the most probable route of exposure is via skin or inhalation.

Information on toxicological effects

Acute toxicity:

The product does not present acute risks based on known or supplied information.

Skin Corrosion/Irritation:

Assessment of serious damage to skin:

Based on available data, the classification criteria are not met.

Serious Eye Damage/Irritation:

Assessment of serious damage to eyes/eye irritation:

Based on available data, the classification criteria are met.

Causes serious eye damage.

Respiratory/Skin Sensitization:

Assessment of sensitization:

Based on available data, the classification criteria are not met.

Germ cell mutagenicity:

Assessment of mutagenicity:

Based on available data, the classification criteria are not met.



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Carcinogenicity:

Assessment of carcinogenicity:

Based on available data, the classification criteria are not met.

Reproductive toxicity and Developmental toxicity:

Assessment of reproduction toxicity:

Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure):

Based on available data, the classification criteria are not met.

Inhalation of excessive concentrations of any dust, including this material, may lead to lung irritation and/or injury.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure):

Based on available data, the classification criteria are not met.

Aspiration hazard:

Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Based on available data, no classification criteria are met for any of these hazard classes.

The product will not enter the environment under normal use if used as indicated on the label. Care should however be taken to avoid any additional release to ground water or sewage systems (even in small quantities), for example through inappropriate disposal.

Environmental Effect	Description
Persistence and Degradability:	No data available.
Bioaccumulative Potential:	This product is not expected to bioaccumulate.
Mobility in Soil:	No data available.
Other Adverse Effects:	No other known adverse effects on the environment.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all local regulations. Do not contaminate water sources food, or feed by storage of the product or disposal of used containers. The product or empty containers must not be disposed of as part of general waste.

General container handling: Non-refillable container. Do not reuse for any purposes or refill the container. Triple rinse container (or equivalent) promptly after emptying.

Empty containers: Offer for recycling, if available. Recondition if appropriate or puncture and dispose of in a hazardous waste landfill, or by other procedures approved by the local authorities.

Contaminated packaging: Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the product.

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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	N/A	N/A	N/A	N/A
Transport Hazard Class	N/A	N/A	N/A	N/A
Transport Hazard Class Pictogram	N/A	N/A	N/A	N/A
Transport Subsidiary Class	N/A	N/A	N/A	N/A
Packaging Group	N/A	N/A	N/A	N/A
Environmental Hazard	N/A	N/A	N/A	N/A

15. REGULATORY INFORMATION

Relevant regulatory information regarding authorization, Safety Data Sheets, Occupational Exposure Limits, Hazardous Substances, Dangerous Goods Transport and Waste:

South Africa: Occupational Health and Safety Act 1993. Regulations for Hazardous Chemical Agents - 2021. Fertilizer, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947). Hazardous Substances Act, 1973 (Act No.15 of 1973). Regulations for Hazardous Chemical Agents – 2021. SANS11014:2010. Safety Data Sheet for Chemical Products – Content and Order of Sections. SANS10206: 2020. The Handling, Storage and Disposal of Pesticides. National Road Traffic Act, 1996 (Act No. 93 of 1996). SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes. National Environmental Management: waste Act 59 of 2008.

Zambia: The Pesticides and Toxic Substances Regulations. Statutory Instrument 20 of 1994 (Act No. 13 of 1994). Environmental Management (Licensing) Regulations, Statutory Instrument No. 112 of 2013 ("S.I 112 of 2013"). ZS 708 – Globally Harmonized System of Classification and Labelling of Chemicals. Environmental Management Act (EMA) of 2011.

Kenya: The Occupational Safety and Health Act, 2007 (Act No. 15 of 2007). The Factories and Other places of Work Act (CAP.514).

Angola: Executive Decree No.128/06 of November 23, general regulations of safety and health signals at work. 20041123.

Namibia: Labour Act 11 of 2007. Regulations relating to the Health and Safety of Employees at Work. Regulations relating to the Health and Safety of Employees at Work Government Notice 156 of 1997.

Botswana: Pesticides and Toxic Substances Regulations. 1994 (2006). Agrochemicals Regulations (under Section 31) (8th August, 2003). Environmental and Pollution Control Act. 1990. Environmental Management (Licensing) Regulations. (S.I. No 112 of 2013). Statutory Instrument 20 of 1994 Act No. 13 of 1994.



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16. OTHER INFORMATION

The information on this sheet is not a specification, it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product nor where instruction or recommendations are not followed. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors or omissions or the consequence thereof.

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
COD	Chemical Oxygen Demand
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
RID	The Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet

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