

SAFETY DATA SHEET	REVISION 03 May 15th 2022	BIOMAC
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Please read this document in its entirety. This product safety data sheet contains important environmental, health and toxicology information for your employees and those who use, transport, store, dispose of, or otherwise handle this product. You should therefore ensure that this information is easily accessible to them. It also contains information regarding security measures and emergency response required by local regulations. If you distribute or market this product, this safety data sheet must be delivered to the buyer and / or carrier.

## SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND / OR MIXTURE AND OF THE SUPPLIER AND / OR MANUFACTURER

Product Name: BIOMAC  
General Use: Soil improvement  
Formulation type: Liquid

Company: Desarrollos BIOSTRATO S de RL de CV  
Address : Av. Vallendar 112 Condominio Sidney  
interior 40 Col. Colinas del Santuario, Código  
Postal: 76904 Corregidora, Querétaro, México.  
Tel: (442) 350 1472

Hazard Category: Not applicable  
Emergency phone #: Toxicological Information Service (PROCCYT) phone number: (55) 5611 2634, (55) 5698 6659  
and 01 (800) 0092 800, 24 hours, 365 days.  
United Nations classification: Unclassified  
United Nations identification number: not applicable  
Recommended substance use: Soil improvement

## SECTION 2. HAZARD IDENTIFICATION

### Warning:

- Keep out of reach of children and pets.

100% Organic product.

### Potential Health Effects:

Eyes: Might cause moderate irritation and temporary redness upon contact.

Skin: Repeated or prolonged contact might cause slight irritation.

Ingestion: Irritation of the digestive tract, vomit and diarrhea.

Inhalation: Inhalation of liquid and spray can irritate the nose and throat.

Chronic Effects: Non-carcinogenic

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Teratological Information: Non-teratogenic

Mutagenicity: Non-mutagenic

NFPA risk scale: Unclassified by NFPA but according to the product's products characteristics the following data is provided

0: RISK-FREE. HEALTH: 1  
1: SLIGHT FLAMNABILITY: 0  
2: MODERATE REACTIVITY: 0  
3: HIGH. OTHER: NON-EXISTENT  
4: SEVERE



### SECTION 3. COMPOSITION/INFORMATION ABOUT COMPONENTS

#### PHYSICAL PROPERTIES

APPEARANCE: DARK BROWN COLOR

FUSION POINT: 100 CENTIGRADE

FLAMMABILITY FLASH POINT: NON-FLAMMABLE

Upper / lower limit of flammability or possible explosion: Not applicable

Relative Density: 1.09 to 1.15

Solubility: Up to 100 %

#### COMPOSITION

Nitrogen: 2.17%

Phosphorus: 5.30%

Potassium: 0.36%

Calcium: 4.21%

Magnesium: 0.029%

Sodium: 0.16%

Copper: 0.04%

Iron: 0.05%

Manganese: 0.02%

Organic Material: 14.8%

Humic Acid : 17%

Fulvic Acid: 3.2%

Conductivity (Ms/cm): 0.097

#### INCOMPATIBILITY

None known but it is recommendable to carry out preventive tests before mixing the product; Do not mix with agrochemicals.

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#### SECTION 4. FIRST AID MEASURES

**General:** Before providing first aid, verify that the situation does not pose any risk to you and wear the minimum required protective equipment. Take the person suffering from adverse effects away from the danger zone to a well-ventilated area or into open air. Keep the person in a resting position and keep him warm. Seek immediate medical attention by calling the emergency numbers listed at the beginning of this safety sheet and keep this sheet or the product label handy.

**Eyes:** Rinse immediately with plenty of water for 10 to 15 minutes keeping eyelids open and turning your eye towards the nearest ear or use an eye washer to water flush. If you wear contact lenses, remove them after 5 minutes and continue washing. If irritation and / or discomfort persist, seek immediate medical attention.

**Ingestion:** Symptoms: bluish discoloration in some parts of the body (such as nails, lips or hands) due to lack of oxygen, dizziness, fainting, low blood pressure, shortness of breath, abdominal pain. IMMEDIATELY CALL THE EMERGENCY PHONES INDICATED ON THIS SHEET. If the person affected is still conscious, do not induce vomiting unless directed to do so by the toxicological information system and instead have the person drink a glass or two of water.

#### SECTION 5. FIRE HAZARD PREVENTION MEASURES

**Fire extinguishing methods:** The product is nonflammable and is compatible with all existing fire fighting media. The valid media type depends on other materials present in the fire area.

**Personal protection equipment:** Firefighter jacket, pants, gloves, helmet and boots and autonomous air equipment if necessary.

**Unusual Fire and Explosion Hazards:** None.

**Hazardous combustion products:** None.

**Inflammation flash point:** Not flammable.

**Combustion Limits (% by volume of air):** Lower: Not applicable. Upper: Not flammable..

#### SECTION 6. STEPS TO BE TAKEN IN CASE OF ACCIDENTAL SPILL OR ACCIDENTAL RELEASE

Individual precautions, protective equipment and emergency procedures:

- In case of accidental spillage of the product, the product must be collected taking all the necessary precautions to avoid any risk of possible poisoning.
- Always wear nitrile, neoprene or PVC gloves, a mask with respiratory protection, nitrile overalls and boots before coming into contact with the spilled product.
- The product must be collected with a suitable shovel and must be deposited in an airtight packaging for later disposal: filtration, purification processes.
- Small spills are handled with absorption of an inert material such as sawdust, sand or earth which must then be incinerated.
- When larger spills occur, they should be confined in sand or earth ditches.

**Environmental precautions:**

- Prevent spillage from entering sewer drains, streams, or water reservoirs.
- Uncontrolled leaks or discharges into bodies of water must be reported to the competent authorities.

**Isolation and cleaning methods and materials:**

**For spillage on soil:** Be sure to wear appropriate personal protection during spillage removal.

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**Containment:** Prevent residues from entering sewers or bodies of water.

**Cleaning:** Wipe spill immediately. Cover it with sand, dirt, or sawdust. Transfer to a container for disposal. Flush the spillage area with water to prevent it from reaching bodies of water.

**In case of spillage in water:**

**Containment:** This material dissolves quickly in water. Hard to control spills or discharges into streams should be reported to the appropriate regulatory authorities.

**Further cleaning:** Remove contaminated water for complete extraction or treatment.

Dispose of waste in accordance with the Regulations of the General Law for the Prevention and Integrated Waste Management.

## SECTION 7. HANDLING AND STORAGE

### General:

- Read this safety sheet in its entirety and use the product according to the instructions and precautions written within.
- The product should be handled and stored in safe warehouses that have optimal ventilation, a cement floor and a spillage containment system.
- Store in accordance with the guidelines of safe agrochemical storage practices and in accordance with the national regulations set forth in the NOM-005-STPS-1998 standards, Relating to safety conditions in work centers for handling, transportation, and storage of hazardous chemicals.

### Handling:

Handle and open container with care. Avoid breathing vapors. Use in adequately ventilated areas.

- Cuando maneje el producto no coma, beba o fume.
- For handling, use protective clothing, nitrile, neoprene or PVC gloves, glasses or suitable mask (see Section 8), avoid contact with skin, eyes and clothing. Avoid rough handling and tossing or dropping full containers of product.
- Do not reuse empty containers.
- The personnel who handle these kinds of material should bathe with soap and water after work and put on clean clothes.
- Do not contaminate water supplies when cleaning equipment or disposing of waste.

### Storage:

- For no reason should this material be stored in places where food for humans or animals is stowed.
- Store exclusively in the original container, keep it tightly closed, labeled, and in a cool, dry and well ventilated place.
- Do not store in places where corrosive or explosive products are found.
- Do not use or store near heat sources or where open flame is handled.
- Store in a cool, dry and dark place, with the containers tightly closed. Protect from freezing.
- Keep away from children and pets.
- Store it so that unauthorized people have no access to the product.

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Control Parameters:** Límites o valores de exposición ocupacionales:

TLV (such as TWA): Not available

OSHA PELb: None

ACGIH TLVc: None

NIOSH RELd: None

**Engineering Controls:** Provide general or local ventilation as needed. When used outdoors, engineering controls are not necessary. If conditions of use are different (for example, greenhouse effect, product reformulation or packaging)

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personnel exposure must be minimized by use of traditional techniques such as closed system design and / or local ventilation.

**Individual protection measures:**

**General Measures**

The use of technical measures should always take priority over the use of personal protective equipment.

When selecting personal protective equipment, seek professional advice.

Personal protective equipment must be approved.

**Eye protection:** Do not allow this material to get in your eyes. When handling this material, the use of chemical safety goggles or masks is recommended. In work areas, other recommended protective equipment includes showers and / or eye wash fountains.

**Respiratory Protection / Ventilation Requirements:** Use respiratory protective equipment if exposure is likely to reach levels above the occupational exposure limit. It is recommended to wear a full face mask with a NIOSH approved filter suitable for organic vapors, powders or aerosols.

**Skin protection:** Avoid skin contact by wearing suitable protective clothing that covers all parts of the body, nitrile, neoprene or PVC or chemical resistant gloves, and eye and face protection. Take off contaminated clothing and wash before reuse. Clean protective gear. After handling this product, shower with soap and water and change clothes. Gloves must be replaced when they do not guarantee impermeability.

**Precautionary measures after work:** Thoroughly wash protective equipment and equipment that has been previously used with a soapy or baking soda solution.

**Control of exposure to the environment:** Respect the regulations pertaining to environmental protection.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Dark Brown Color

ODOR: Soil

ODOR THRESHOLD: Not applicable.

pH: 7.6

MELTING POINT: 100 °C

FREEZING POINT: -5 °C.

STARTING POINT AND BOILING INTERVAL: 100 °C

FLASH POINT: Not Flammable

EVAPORATION SPEED: the higher the ambient air temperature, the higher the evaporation rate.

VAPOR PRESSURE: Vapor will move from high to low pressure. At 30 °C, the air will have a content of 30.4 g of water per m<sup>3</sup> (100% RH). Water vapor pressure varies with humidity and air temperature.

VAPOR DENSITY: Low.

Upper / lower limit of flammability or possible explosion: Not applicable

Relative density: From 1.09 to 1.15

Solubility: 100%

PARTITION COEFFICIENT n-octanol / water: Not applicable.

VISCOSITY: Not applicable.

MOLECULAR WEIGHT: Low.

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#### COMPOSITION

Nitrogen: 2.17%  
 Phosphorus: 5.30%  
 Potassium: 0.36%  
 Calcium: 4.21%  
 Magnesium: 0.029%  
 Sodium: 0.16%  
 Copper: 0.04%  
 Iron: 0.05%  
 Manganese: 0.02%  
 Organic Matter: 14.8%  
 Humic Acids: 17%  
 Fulvic Acids: 3.2%  
 Conductivity (Ms / cm): 0.097

#### INCOMPATIBILITY

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None known but it is recommendable to carry out preventive tests before mixing the product; Do not mix with agrochemicals.

#### SECTION 10. STABILITY AND REACTIVITY

**Stability:** Stable in neutral solutions.

**Reactivity:** Not available.

**Incompatibility:** None known.

**Hazardous decomposition:** Does not occur.

**Hazardous Polymerization:** Does not occur.

**Conditions to avoid:** High temperatures.

**Materials to avoid:** Strong acids and bases.

#### SECTION 11. TOXICOLOGICAL INFORMATION

**Eye irritation:** Slightly irritating.

**Skin irritation:** Slightly irritating.

**Skin sensitization:** Not applicable.

**Subchronic toxicity:** Not applicable.

**Chronic toxicity:** Not applicable.

**Carcinogenicity:** Not carcinogenic.

**Mutagenicity:** Not mutagenic.

**Neurotoxicity:** Not applicable.

#### SECTION 12. ECOTOXICOLOGICAL INFORMATION

**Ecotoxicity (aquatic and terrestrial):** Not applicable.

**Persistence and degradability:** Not applicable.

**Bioaccumulative potential:** Not applicable.

**Mobility in soil:** Not applicable.

**Product is highly soluble in water and cannot be transported in it.**

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## SECTION 13. INFORMATION REGARDING PRODUCT DISPOSAL

**USER SHOULD DISPOSE OF ANY PRODUCT THAT CANNOT BE UTILIZED ACCORDING TO THE RECOMMENDATIONS ON THE LABEL.**

### **Waste management information:**

All waste disposal procedures must comply with the pertinent regulations established in SEMARNAT's Regulations of the General Law for the Prevention and Integral Waste Management . Ponds, waterways (whether on the surface or underground), sewers, land, supply points, sumps or water drains or ditches should not be dumped or contaminated (directly or indirectly) with chemicals or their containers once used. Disposal must be done in accordance with local, state or national laws: General Law of Ecological Balance and Environmental Protection; General Law for the Prevention and Comprehensive Waste Management. Contact the corresponding environmental entity regarding current official regulations to be enforced.

**Residual Product disposal method:** Incineration in places controlled and authorized by the competent authorities in conformity with the corresponding rules in effect. Yet another possible method is that of a final disposal controlled by the following official Mexican standards: NOM-052-SEMARNAT, NOM-053-SEMARNAT and current NOM-054-SEMARNAT.

### **Disposal of contaminated containers and/or packaging:**

**Rigid containers / packaging:** Carry out a triple washing container procedure. Fill a bottle with water up to ¼ of its capacity, put a lid on it and shake for 30 seconds, pour the water into the sprayer tank. Repeat this procedure three times and dispose of the container to avoid reuse. The container, once emptied, is a toxic hazardous waste.

The containers used in the triple washing are considered hazardous waste and must be handled according to official regulations for their final disposal.

The final disposal process must be carried out by authorized specialists.

**Bags, flexible packaging / containers:** Do not use the triple wash procedure. Fold the container in half, place it in a clear plastic bag and take it to the nearest Collection Center.

Disposal of large quantities of empty containers must be carried out by duly appointed specialists.

### **Product Elimination:**

The user must keep under confinement all products that cannot be used in accordance with the recommendations printed on the label and in accordance with applicable laws or regulations.

## SECTION 14. TRANSPORTATION INFORMATION

This material is not a dangerous good for the purpose of transportation in all models.

UN NUMBER: Not applicable.

United Nations official transport designation: Not applicable.

Transport hazard class(es): accidental spillage.

Packing / packaging group: NOM-003-SCT / 2008, Characteristics of container labels and packaging, intended for the transport of hazardous substances, materials and waste, the corresponding risk class is: Not regulated.

Environmental risks: Not applicable.

Special user precautions: the personnel in charge of transportation must always have the safety sheet at hand.

In case of accidental spillage, said personnel must immediately contact the emergency telephone numbers that appear in this Safety Data Sheet and must always have the necessary protection elements to ensure the safe handling of the product in case of accidental spillage, according to NOM-005-SCT-2008.

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Transportation classification according to NOM-002-SCT / 2011 standards list of the most commonly transported hazardous substances and materials.

#### SECTION 15. REGULATORY INFORMATION

Disposal of waste and packaging should be carried out in accordance with the regulations of the General Law for the Prevention and Comprehensive Management of Waste issued by SEMARNAT.

The information on risks contained in this safety sheet is in accordance with the provisions of the Official Mexican STANDARD NOM-018-STPS-2015 System for the identification and conveyance of dangers and risks due to hazardous chemical substances in the workplace and other current applicable standards.

All pesticides and plant nutrients are registered according to the Regulations on Registration Import and Export Authorizations and Export Certificates of Pesticides, Plant Nutrients and Toxic or Dangerous Substances and Materials.

User should consult state or local authorities to verify applicable regulations.

#### SECTION 16. ADDITIONAL INFORMATION RELATING TO THE PREPARATION AND UPDATES OF SAFETY DATA SHEETS

This safety data sheet replaces revision 01, dated September 14, 2018.

Revision 02 dated October 14, 2020 Changes were made to sections 1,

2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14. Not classified by the United

Nations.

##### S Phrases

**S1/2** Keep safely stored away under lock and out of reach of children.

**S13** Store away from food, drinks and animal feed.

**S20/21** Do not eat, drink, or smoke while using the product.

**S24/25** Avoid contact with eyes and skin.

**S29/35** Do not dispose of waste by flushing down the drain; Dispose of product and its containers using all possible precautions.

**S36/37/39** Wear suitable clothing and gloves and eye / face protection.

The information above is deemed correct, but is not exhaustive and is meant to be used for guidance only. It is based on current knowledge of the chemical or mixture and is applicable to the appropriate safety precautions for the product.

IN CASE OF A CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL SETIQ (DAY AND NIGHT) PHONE NUMBERS: 01-800-002-1400 AND (0155) -55-59-15-88 (MEXICO CITY)

PROCCYT Toxicological Information Service) telephone numbers: (55) 5611 2634, (55) 5698 6659 and 01 (800) 0092 800, 24 hours a day, 365 days a year.