
1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Trade name: INVIGORATE®

Registration number: Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against**Application of the substance / the mixture:**

Microbial-based liquid formula for use in agriculture providing nutrient absorption enhancement and biological nitrogen fixation.

1.3 Details of the supplier of the safety data sheet**MANUFACTURER:****Bioderpac S.A. de C.V.****ADDRESS:** Carretera Navojoa – Huatabampo Km 25, s/n, Colonia Agricola
CP. 85285, Etchojoa, Sonora, México**TELEPHONE:** +52 642-425-52-30 Option 1**AUTHORIZED IMPORTER:****AGRINOS AS****ADDRESS:** Akerbrygge Business Village Grundingen 6 0250 Oslo Norway**TELEPHONE:** +47 210 45 600

Further information obtainable from: Product Safety Department

1.4 Emergency response contact information: (888) 342-8703

Date prepared: 03/07/2016

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture**This product is not classified as hazardous according to OSHA in the US or WHMIS in Canada****Information concerning particular hazards for human and environment:****Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

2.2 Label elements**Labeling according to OSHA HCS and Canadian WHMIS****Hazard pictograms:** Void**Signalword:** Void**Hazard statements:** Void**2.3 Other Hazards:****Results of PBT and VPvB assessment****PBT:** Not applicable**VPvB:** Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical characterization: Mixture**Description:** Live non-pathogenic soil microorganisms in an inert carrier.**Dangerous components:** Void**Additional information:** For the wording of the listed risk phrases refer to Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures**General information:** No special measures required.**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately rinse with water. If skin irritation continues, consult a doctor.**After eye contact:** Check for and remove contact lenses. Rinse opened eye for several minutes under running water. Then consult a doctor.**After swallowing:** Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.**4.2 Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

Information for doctor: Treat symptomatically and supportively.

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

No further relevant information available.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture:

Special hazards arising from the substance or mixture: No further relevant information available.

5.3 Advice for firefighters

Protective Equipment: Wear fully protective suit. Wear self-contained respiratory protective device. Do not inhale explosion gases or combustion gases.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation.

6.2 Environmental precautions:

Dilute with plenty of water.

6.3 Methods and material for containment and cleaning up:

Use absorbent material, then wash area with soapy water.

Disinfect spill area with clean water to which household bleach is added at a rate of 100 mL per 20 liters.

6.4 Reference to other sections:

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protective equipment.
- See Section 13 for disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling:

- Prevent formation of aerosols.
- Ensure good ventilation/exhaustion in the workplace.
- Do not dilute or add any other substance except as specified in Agrinos product use instructions.

Information about fire and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities:

Storage requirements to be met by storerooms and receptacles: Store only in the original receptacle.

Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

Further information about storage conditions:

Protect from frost.

Protect from heat and direct sunlight.

Store in a cool dry place between the temperatures of 2°C / 35.6°F and 48°C / 118.4°F away from direct sunlight.

The product will freeze at -10°C / 14°F.

7.3 Specific end use(s):

No further relevant information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see Section 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

8.2 Exposure controls

Personal protective equipment: Select PPE appropriate for the operations taking place taking into account the product properties.

General protective and hygienic measures:

- Wash hands before breaks and at the end of work.
- Avoid close or long-term contact with the skin.
- Avoid contact with the eyes.
- Do not inhale gases/fumes/aerosols.
- Do not eat, drink, smoke, or sniff while working.

Respiratory protection: Not required.

Protection of hands: Wear impervious gloves that provide comprehensive protection, e.g. PVC or rubber.

Eye protection: Safety glasses

Body protection: Protective work clothing. Body protection must be chosen depending on product properties, activity and possible exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties****General information - Appearance**

Form:	Fluid
Color:	Brown
Odor:	Mild
Odor threshold:	Not determined
pH value:	3.5 - 4.5

Change in condition

Melting point/melting range:	-10°C
Boiling point/boiling range:	100°C
Flash point:	Cannot support combustion
Flammability: (solid, gaseous):	Not applicable
Ignition temperature:	142 °F / 61 °C
Decomposition temperature:	Not determined
Self-igniting:	Product is not self-igniting
Danger of explosion:	Product does not present an explosion hazard
Explosion limits	
Lower:	Not determined
Upper:	Not determined
Vapor pressure:	Not determined
Density at 20°C:	1.0-1.2 g/cm ³
Relative density:	Not determined
Vapor density:	Not determined
Evaporation rate:	Not determined
Solubility in / miscibility with water:	Dispersible
Partition coefficient (n-octanol/water):	Not determined
Viscosity Dynamic:	
Kinematic:	Not determined
Solvent content	
Organic solvents:	0.00%
VOC (EC):	0.00%

9.2 Other information:

No further relevant information available.

10. STABILITY AND REACTIVITY**10.1 Reactivity****10.2 Chemical stability**

Thermal decomposition/conditions to be avoided: No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions:

No dangerous reactions known.

10.4 Conditions to avoid:

No further relevant information available.

10.5 Incompatible materials:

Strong oxidizing agents.

10.6 Hazardous decomposition products:

Organic matter under decomposition/combustion may produce:

- Carbon monoxide and carbon dioxide.
- Sulfur oxides (SO_x).
- Nitrogen oxides (NO_x).

11. TOXICOLOGICAL INFORMATION

There are no ingredients classified as carcinogens according to IARC, ACGIH, NTP or OSHA.

11.1 Information on toxicological effects

Acute toxicity:

Primary irritant effect

- On the skin: No irritating effect.
- On the eye: No irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

- The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
- When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
- There are no ingredients classified as carcinogens according to IARC,ACGIH,NTP or OSHA.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability.

Easily biodegradable.

12.3 Bioaccumulative potential.

Product is not expected to bioaccumulate.

12.4 Mobility in soil.

No further relevant information is available.

Additional ecological information

General notes: Generally not hazardous to water.

12.5 Results of PBT and vPvB assessment

- PBT: Not applicable
- vPvB: Not applicable

12.6 Other adverse effects

No further relevant information available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Recommendation

Recommended Hierarchy of Controls:

- Minimize waste.
- Reuse if not contaminated.
- Recycle, if appropriate, or
- Safe disposal (if all else fails).

Contact waste processors for recycling information.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state or international legislation.

European Waste Catalogue

Waste key numbers in accordance with the European Waste Catalogue (EWC) are origin-referred defined. Since this product is used in several industries, no waste key can be provided by the supplier. The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.

Uncleaned packaging

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agents: Water, if necessary together with cleansing agents

14. TRANSPORT INFORMATION

14.1 UN-Number

ADR, ADN, IMDG, IATA: Void

14.2 UN proper shipping name

ADR, ADN, IMDG, IATA: Void

14.3 Transport hazard class(es)

ADR, ADN, IMDG, IATA: Void

14.4 Packing group

ADR, IMDG, IATA: Void

14.5 Environmental hazards

Marine pollutant: No

14.6 Special precautions for user:

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

Not applicable.

Transport/additional information:

Not dangerous according to the above specifications.

UN "Model Regulation":

15. REGULATORY INFORMATION

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

No further relevant information available.

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product feature and shall not establish a legally valid contractual relationship. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor / manufacturer assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Vendor / manufacturer assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.

Last change to SDS: 03/07/2016