

Safety Data Sheet (OSHA 29 CFR 1910.1200)

(REACH regulation (EC) n° 1907/2006 – n° 453/2010)

1. IDENTIFICATION

1.1 Product identifiers:

Bio-Act

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use for agriculture (nutrients/trace elements for plants)

Restrictions on Use: None

1.3 Details of the supplier of the safety data sheet

Company name: AgriTec International
Address: 1921 Stonehill Drive
City, State and Zip Code **Justin TX 76247**
Telephone: 1+ 800-495-3118
FAX:

1.4 Emergency telephone number : 800-495-3118

2. HAZARD IDENTIFICATION

Classifications of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Eye irritation, Category 2 (Eye Irrit. 2, H319).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

Eye irritation (Xi, R 36).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.1 Label Elements

Non-compliance with EC Regulation NO.1272/2008 and its amendments.

Classification according to 29 CFR 1910.1200

Hazard pictograms :



GHS07

Signal Word:

WARNING

Hazard statements:

H319

Causes serious eye irritation

Precautionary statements – General :

P102

Keep out of reach of children

Precautionary statements – Prevention :

P264

Wash hands thoroughly after handling.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements – Response :

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Precautionary statements – Disposal :

P501

Dispose of contents/container according to local/regional/national/international regulations.

Other information:

Replace the contents / container to an approved disposal center.

2.2 Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) $\geq 0.1\%$ published by the European Chemicals Agency (ECHA) under article 57 of REACH:

<http://echa.europa.eu/fr/candidate-list-table>

The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annex XIII of the REACH regulations EC 1907/2006.

3. COMPOSITION OF PRODUCT

Chemical Name	CAS#	% Concentration	(EC) 1272/2008	67/548/EEC
Urea	57-13-6	1.00	GHS07	Xi
Potassium Nitrate	7757-79-1	1.00	231-818-8	Xi
Boric Acid	10043-35-3	0.10	none	Xi
Cobalt Chloride, hexahydrate	7646-79-9	0.02	GHS07	Xi
Manganese Sulfate, monohydrate	10034-96-5	0.30	none	Xi
Ammonium Molybdate	12054-85-2	0.04	none	none
Zinc Sulfate, monohydrate	7446-19-7	0.40	none	Xi

4. FIRST AID

4.1 GENERAL

Non-hazardous material. If irritation or discomfort occurs, seek medical advice from a physician.

4.2 EYE CONTACT

Immediately flush eyes with plenty of water for 10 minutes or as long as necessary. Keep eyes wide open while flushing. Seek medical attention if irritation persists.

4.3 SKIN CONTACT

Wash with mild soap and water. Seek medical attention if discomfort occurs.

4.4 INHALATION

Do not intentionally breathe vapors. Ventilate the area well and go to open space.

4.5 INGESTION

Drink plenty of water or milk. **Seek medical** attention if discomfort occurs.

4.6 Indication of any immediate medical attention and special treatment needed

Specific and immediate treatment:

N/A

5. FIRE FIGHTING MEASURES

5.1 FLASH POINT

Not Applicable

5.2 FLAMMABLE LIMITS

Not Applicable

5.3 SUITABLE EXTINGUISHING EQUIPMENT

Use extinguishing media appropriate for surrounding fire.

5.4 FIRE AND EXPLOSION HAZARDS

Non-flammable. Non-explosive

5.3 ADVICE FOR FIREFIGHTERS : Like in case of all fires involving chemicals, wear appropriate protective equipment,(clothing, boots and gloves)

6. ACCIDENTAL RELEASE MEASURES

6.1 SAFETY MEASUREMENTS TO PROTECT PERSONS

Wear suitable protective clothing, gloves and eye protection.

6.2 Proper Methods for damage limitation and cleanup

Wear suitable protective clothing, gloves and eye protection.

7. HANDLING AND STORAGE

7.1 Storage Recommendations

Avoid freezing but store in a cool place and out of direct sunlight. Diluting product with water will shorten shelf life.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

8.1 Exposure Control

Eyewash facilities should be available.

8.2 Exposure Limits

No data available

8.3 Respiration Protection

None required during normal handling

8.4 EYE PROTECTION

Eye protection should be worn when handling due to possible splash and eye irritation



8.5 HAND PROTECTION

Gloves should be worn when handling due to temporary staining.



8.6 SKIN PROTECTION

No special personal protection required under conditions of intended use. In the event of a bulk spill, wear appropriate protective clothing.



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Dark Liquid
Color	Dark Brown

Color	earthy white
State	Soluble Concentrate (SL)
<u>Important health, safety and environmental information</u>	
Melting Point/Range	NA
Expl. Limit LEL-UEL. %-%	NA
Vapor Pressure	Not determined
Decomposition Temp.	Not determined
pH Value	4.0 +/- 0.5
Flash Point	NA
Molecular Weight	Not determined
Ignition Temp	Not determined
Flammability	Non flammable
Upper/Low Flammability Limits	Non flammable
Decomposition temp	NA
Rel. Vapor Density (air =1)	not determined
Air Reactive	Non-applicable
Percent volatile	NA
Bulk density	9.14 lbs/gal
Solubility in water	100% at 20°C
Saturation Conc.	2%
Rel. density sat. air (air =1)	not determined
Boiling point/range	100°C
pH concentrate	4.0 +/- 0.5
Viscosity	Not determined
Smelling limits lo-hi	Not determined
Rel. evap. Velocity	1.0 atm
Water reactive	will dilute

10. STABILITY AND REACTIVITY

10.1 Reactivity

This product is stable and does not decompose under normal use and storage.

10.2 Chemical Stability

Stable under usual work conditions.

10.3 Conditions to Avoid

Excessive heat or freezing

10.4 Hazardous Decomposition Products

None that are known, if spilled, area will be slick, clean up to avoid slips, trips and falls. Staining may also occur.

11. TOXICOLOGICAL INFORMATION

11.1 ROUTES OF EXPOSURE

Can be an irritant for the skin. Can be an irritant for the eyes. Can be an irritant for the mouth and digestive tract if ingested.

11.2 TOXICOLOGICAL EFFECTS

Under normal conditions of use, no health effects are expected.

11.3 ACUTE TOXICITY

Does not pose any toxicological hazard.

12. ECOLOGICAL INFORMATION

12.1 BREAKDOWN

Biodegradable substance. Product presents a minimal environmental impact.

12.2 ECOTOXICITY

Plant nutritional supplement and growth stimulant, high concentrations may cause burn of plants.
Nontoxic to marine algae, vertebrates or invertebrates.

13. DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1 Waste treatment methods

Do not pour into drains or waterways.

Waste:

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

Local arrangements :

Submit to an approved disposal.

Codes of wastes (Decision 2001/573/EC, Directive 2006/12/EEC, Directive 94/31/EEC on hazardous waste :

06 03 14 solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

14. TRANSPORT INFORMATION

Exempt from transport classification and labeling.

Transport product in compliance with provisions of the ADR for road, RID for rail, AMDG for sea and ACAO/IATA for air transport (ADR 2013 – IMDG 2012 – ACAO/IATA 2014).

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture – Classification and labelling information included in section 2:

The following regulations have been used:

- Directive 67/548/EEC and its adaptations
- Directive 1999/45/EEC and its adaptations
- EU Regulation No. 1272/2008 amended by EU Regulation No. 487/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 944/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 605/2013.

-Container information:

No data available

-Particular provisions :

No data available.

Substances that deplete the ozone layer (EC Regulation No. 1005/2009, Montreal Protocol) :

This product is not subject to any regulation concerning the nomenclature of classified installations (storage and use).

15.2 Chemical safety assessment

No data available.

16. OTHER INFORMATION

Issued 12-2-2015. This revised SDS cancels and replaces any preceding release or MSDS. It refers solely to the product indicated and constitutes no guarantee of particular quality.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

Hazard symbols :



Irritant

Risk phrase :

R 36 Irritating to eyes

Safety phrase:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Product and Technical Information

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- S 00 This material and its container must be disposed of as hazardous waste.
- S 1/2 Keep locked up and out of reach of children
- S 20/21 When using do not eat, drink or smoke.

Abbreviations :

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

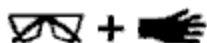
ICAO : International Civil Aviation Organization.

RID : Regulations concerning the International carriage of Dangerous goods by rail.

WGK : Wassergefahrdungsk;asse (Water Hazard Class)

GHS07 : Exclamation mark

Health	1
Flammability	0
Reactivity	0
Personal Protection	B



Health Hazard
Flammability

1 Irritation or minor reversible injury possible
0 Materials that will not burn

Reactivity

0 Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal Protection

B Safety Glasses + Gloves

HMIS Ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4

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representing significant hazards or risks. Although HMIS ratings are not required on MSDS's by OSHA's CFR 1910.1200, we choose to provide them as a service to our customers using HMIS. These ratings are to be used only with a fully implemented HMIS program. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

Other Information

Neither this data sheet nor any statement contained herein grants or extends any license, expressed or implied, in connection with patents issued or pending which may be the property of the manufacturer or others. The information in this data sheet has been assembled by the manufacturer based on its own studies and on the work of others. The manufacturer makes no warranties, expressed or implied, as to the accuracy, completeness, or adequacy of the information contained herein. The manufacturer shall not be liable (regardless of fault) to the Vendee, the Vendee's employees, or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy, or furnishing of such information.

VENDOR NOTES

Every endeavor has been made to ensure that the information contained in this SDS leaflet is reliable, but we cannot accept liability for any loss, injury or damage, which may result from its use or misuse. Data given in this SDS is solely for the guidance in safe handling and use of the product by customers; they do not form part of any specification. If difficulties arise, we shall be glad to discuss them. Customers are encouraged to conduct their own tests following discussion with our technical department. The above information is based on experience, but it is always advisable for customers to satisfy themselves, by consultation with our technical department and small-scale testing if necessary, that product, which they have selected, is suitable for their purpose under their conditions of use.