

SAFETY DATA SHEET

1. Identification

Product Identifier Biovate

Other means of identification

SDS number CA-201524

Chemical Name Fertilizer

Recommended use and restriction on use

Recommended use Soil additive; micronutrient. Not for animal or human consumption.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor Information

Manufacturer Company Name: Concept AG LLC
 Address: 1300 Plant Rd
 Charleston, MO 63834
 Telephone: 573-233-8306
 SDS Information: info@conceptag.com

Emergency Telephone Number

Concept AG LLC 1-888-638-9388
 PERS 24 Hour Emergency Response Information
 Domestic: 1-800-633-8253
 International: 1-801-629-0667

2. Hazard(s) Identification

Hazard Classification

Physical Hazard(s)

Not classified

Health Hazard(s)

Acute toxicity	Category 4
Eye irritant	Category 1
Skin irritant	Category 2

Environmental Hazard(s) Not Established

OSHA hazard(s) Not Classified

Label Elements



Signal Word(s)

Health Hazard. Corrosive.

Hazard Statement

H302 – Harmful if swallowed.
 H315 – Causes skin irritation.
 H318 – Causes serious eye damage.

Precautionary Statement

Wear protective gloves/protective clothing/eye protection/face protection. Seek medical attention. Wash thoroughly after handling. If swallowed, seek medical attention. Remove

contaminated articles and wash prior to reuse. If on skin or eyes; rinse area thoroughly. If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention.

Prevention

Wear protective equipment which includes protection on skin/clothing/eyes/face. Do not breathe dust/fume. Avoid release to the environment.

Response

If in eyes: Wash eyes with water for at least 30 minutes. If irritation persists, get medical attention. If skin irritation occurs: Wash affected area with soap and water for approximately 30 minutes. If inhaled: Remove exposed person to fresh air. If ingested: Do not induce vomiting. Get immediate medical attention.

Storage

Store in a cool, dry, well-ventilated area away from other chemicals/incompatible materials.

Disposal

Dispose of in accordance with appropriate Federal, State, and Local regulations and/or ordinances.

Hazard(s) not otherwise classified Not known.

3. Composition/information on ingredients

Mixtures

Chemical Name	CAS#	%
Water	7732-18-5	Trade Secret
Chelated Iron	15137-09-4	Trade Secret
Humic Acid	1415-93-6	Trade Secret
Fulvic Acid	47966-3	Trade Secret
Asophyllum Nodosum	84775-78-0	Trade Secret

4. First-aid measure(s)

Ingestion Rinse mouth. Seek medical attention. Do not induce vomiting unless directed otherwise by a medical professional.

Inhalation If symptomatic, move to a well ventilated area; Seek medical attention if symptoms persist.

Skin Contact Immediately flush affected area with mild soap and water. Remove any contaminated articles. If irritation persists, seek medical attention.

Eye Contact Flush eyes with a steady stream of clean water for 15-20 minutes. If irritation persists, seek medical attention.

Most important symptoms/effects, acute and delayed

Symptoms

Can cause eye and skin irritation.

Indication of immediate medical attention and special treatment needed

Symptoms

Symptoms may be delayed. Seek medical attention if irritation occurs.

5. Fire-fighting measures

Suitable extinguishing methods

Not considered to be a fire hazard. Use extinguishing media applicable to the

surrounding fire.

Unsuitable extinguishing methods

Not known.

Specific hazards arising from the chemical

This material is non-combustible. If heated, corrosive and toxic vapors/gasses/mists may be formed; avoid breathing vapors of dusts.

Special protective equipment and precautions for firefighters

Do not enter fire area without proper protective equipment, including full protective clothing and self-contained respiratory protection.

Firefighting equipment instructions

Not known. Seek additional information from qualified fire professionals.

Specific methods

Recommended to use water spray or fog for cooling exposed containers. Exercise caution when fighting any fire. Prevent fire-fighting water from entering the environment.

General fire hazard(s)

None known.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Wear appropriate Personal Protective Equipment (See section 8).

Methods and materials for containment and cleaning up

Contain material and place in suitable containers for disposal. May use an inert absorbent material; such as sand, silica, etc. If material enters a waterway, notify the appropriate authorities. Wear Personal Protective Equipment per section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and Storage

Precautions for safe handling

Do not get in eyes, on skin, or on clothing. Wear appropriate Personal Protective Equipment. Always observe good hygiene measures; such as washing skin and clothing after handling the material and prior to eating, drinking, or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Not intended for human or animal consumption.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area away from incompatible materials (See section 10). Use appropriate containers to avoid environmental release. Use good engineering practices to establish good ventilation. Avoid contact with skin, eyes and clothing. Wear suitable protective equipment to protect from contact. Avoid breathing mist or vapors. Wash skin thoroughly after handling. Store in closed containers away from extreme heat, sparks, open flame or oxidizing materials. Avoid freezing. Keep away from children and animals.

8. Exposure Controls/Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values			
Components	OSHA PEL	ACGIH TLV	NIOSH
Chelated Iron	Not listed	Not listed	Not listed

Humic Acid	Not listed	Not listed	Not listed
Fulvic Acid	Not listed	Not listed	Not listed
Asophyllum Nodosum	Not listed	Not listed	Not listed

Biological limit values

Not available.

Appropriate engineering controls

Good general ventilation and/or local exhaust ventilation at the point of generation is recommended.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (goggles). Additional equipment as deemed appropriate for the task.

Skin protection

Hand protection

Chemical resistant gloves are recommended.

Other

Wear chemical-resistant gloves, impervious apron, footwear, and protective clothing appropriate for the risk of exposure limits or to an acceptable level for the risk of exposure. Contact chemical protective clothing manufacturer for specific information.

Respiratory protection

Where appropriate, NIOSH-approved respirator. If respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. Respirator type: Air-purifying respirator with an appropriate, government approved, air purifying filter, cartridge, or canister.

Thermal hazards

None known.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Appearance

Physical state	Clear
Form	Liquid
Color	Dark brown to black
Odor	Manure
Odor threshold	Not established.
PH	3.6
Melting point/freezing point	Not available.
Initial boiling point and boiling point range	216° F
Flash point	Not available.
Evaporation rate	>1
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limit	
Explosive limit – lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Vapor pressure	@20 C 18.75
Vapor density	>1
Relative density	Not available.
Solubility (ies)	
Solubility (water)	Complete

Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not available.
Particle size	Not available.

10. Stability and Reactivity

Reactivity	This product is non-reactive under normal conditions of use, storage, and transport. Avoid incompatible materials.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Heat, humidity, sparks, and contact with incompatible materials.
Incompatible materials	Water reactive materials.
Hazardous decomposition products	Thermal- carbon monoxide and/or carbon dioxide after content have evaporated and residue is exposed to excessive heat.

11. Toxicological Information

Information on likely routes of exposure			
Inhalation	Vapors and spray mist may irritate throat and respiratory system and cause coughing.		
Skin contact	Prolonged skin contact may cause irritation.		
Eye contact	Can cause eye irritation.		
Ingestion	May cause discomfort if swallowed.		
Symptoms related to the physical, chemical, and toxicological characteristics	Can cause serious eye and skin irritation.		
Information on toxicological effects			
Acute toxicity	Causes eye irritation. Mild skin irritation. May cause respiratory irritation.		
Components	Species	Test Results	Type
Chelated Iron	Not Available		
Humic Acid	Not Available		
Fulvic Acid	Not Available		
Asophyllum Nodosum	Not Available		
Skin corrosion/irritation		Prolonged exposure may cause skin irritation.	
Serious eye damage/eye irritation		Can cause serious eye irritation/damage.	
Respiratory or skin sensitization			
Respiratory sensitization	Not a respiratory sensitizer.		
Skin sensitization	Not a skin sensitizer.		
Germ cell mutagenicity		Not established.	
Carcinogenicity		This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
Reproductive toxicity		Not established.	
Specific target organ toxicity- single exposure			
Not established.			

Specific target organ toxicity- repeated exposure

Not established.

Respiration hazard

Not established.

12. Ecological Information

Ecotoxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic vertebrates
Chelated Iron	No data available	No data available	No data available
Humic Acid	No data available	No data available	No data available
Fulvic Acid	No data available	No data available	No data available
Asophyllum Nodosum	No data available	No data available	No data available

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

May disperse in soil.

Mobility in general

This product is water soluble and may disperse in soil.

Other adverse affects

Not available.

13. Disposal Considerations

Disposal instructions

Since emptied containers may retain product residue, follow label warnings even after container is emptied. The generation of waste should be avoided whenever possible. When practical, recycle in an environmental acceptable, regulatory compliant manner. Dispose of non-recyclable products in accordance with all applicable Federal, State, and local requirements.

Hazardous waste code

The waste code should be assigned in discussion between the user, producer, and the waste disposal company.

Waste from residue(s)/unused product(s)

Recover and recycle if practical. Dispose in accordance with all applicable regulations.

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transportation Information

DOT

UN Number	Not established.
UN proper shipping name	Not established.
Transport hazard class(es)	
Class	Not established.
Subsidiary risk	Not established.
Label(s)	Not established.
Packing group	Not established.
Environmental hazard(s)	Not established.
Special precautions for user	None known.
Special provisions	Not established..
Packaging exceptions	None known.
Packaging non bulk	Not established.
Packaging bulk	Not established.

IATA

UN Number Not established.
 UN proper shipping name Not established.
 Transport hazard class(es)
 Class Not established.
 Subsidiary risk Not established.
 Label(s) Not established.
 Packing group Not established.
 Environmental hazard(s) None known.
 ERG Code Not established.
 Special precautions for user None known.
 IMDG
 UN Number
 UN proper shipping name Not established.
 Transport hazard class(es)
 Class Not established.
 Subsidiary risk Not established.
 Label(s) Not established.
 Packing group Not established.
 Environmental hazard(s) Not established.
 EmS Not established.
 Special precautions for user None known.
 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

15. Regulatory Information

US Federal regulations

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA section 12(b) Export Notification (40 CFR 707, Subpt. D)

No requirements.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

No requirements.

CERCLA Hazardous Substance List (40 CFR 302.4)

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories

Immediate Hazard- No.
 Delayed Hazard – No.
 Fire Hazard – No.
 Pressure Hazard – No.
 Reactivity Hazard – No.

SARA 302 Extremely Hazardous Substance

No requirements.

SARA 311/312 Hazardous chemical

No requirements.

SARA 313 (TRI reporting)

Chemical Name	CAS Number	Threshold Value
Chelated Iron	15137-09-4	Not listed
Humic Acid	1415-93-6	Not Listed

Fulvic Acid	47966-3	Not Listed
Asophyllum Nodosum	84775-78-0	Not listed

Other Federal Regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPS) List
Not established.

Clean Air Act (CAA) Section 112 (r) Accidental Release Prevention (40 CFR 68.130)
Not established.

Safe Water Drinking Act (SDWA)
Not established.

US State Regulations

US. California Proposition 65
Not listed.

US. New Jersey Worker and Community Right-to-Know Act
Not listed.

US. Pennsylvania RTK- Hazardous Substances
Not listed.

Inventory Status

Chemical Name	AICS	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS
Water	Listed	Listed	Listed	-	Listed	-	-	Listed	KE-35400	Present
Chelated Iron	Listed	Listed	Listed	-	Listed	-	Listed	Listed	Listed	Listed
Humic Acid	Listed	Listed	Listed	-	Listed	-	-	Listed	Listed	Listed
Fulvic Acid	Listed	Listed	Listed	-	Listed	-	-	Listed	Listed	Listed
Asophyllum Nodosum	Listed	Listed	Listed	-	Listed	-	-	Listed	Listed	Listed

16. Other Information, including Date of Preparation or Last Revision

Issue Date: 06/17/2015

Revision Date: 10/12/2016

Version #: 02

Prepared by: CE

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