

BioScientific, Inc.

MATERIAL SAFETY DATA SHEET

Bio Humic Acid

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Phone: 1-800-USA-BIO1

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24 Hour Emergency Phone
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SECTION 1

COMPOSITION, INFORMATION AND INGREDIENTS

Chemical Name	CAS#
Humic Acid from leonardite	1415 -93-6
Water	7732-18-5

SECTION 2

HAZARDOUS COMPONENTS

Can irritate eyes and skin. May cause mucous membrane irritation.
OSHA hazard category – Irritant
CERCLA Ratings: Health = 1, Fire = 0, Reactivity = 0, Persistence = 0

SECTION 3

PRECAUTIONARY LABEL INFORMATION AS PRESCRIBED BY THE U.S. EPA

This section not applicable to non-biocides.

SECTION 4

FIRST AID INFORMATION

Eye exposure: Flush immediately with copious amounts of tap water or normal saline (minimum of 15 minutes). Take exposed individual to a health care professional, preferably an ophthalmologist, for further evaluation.
Skin exposure: Wash exposed area with plenty of soap and water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists, consult a health care professional.
Inhalation: If exposure by inhalation is suspected, immediately move exposed individual to fresh air. If individual experiences nausea, headache, dizziness, has difficulty in breathing or is cyanotic, seek a health care

professional immediately.

Ingestion: DO NOT INDUCE VOMITING. Rinse with copious amounts of water or milk, first. Irrigate the esophagus and dilute stomach contents by slowly giving one (1) to two (2) glasses of water or milk. Avoid giving alcohol or alcohol related products. In cases where the individual is semi-comatose, comatose or convulsing, DO NOT GIVE FLUIDS BY MOUTH. In case of intentional ingestion of the product seek medical assistance immediately; take individual to nearest medical facility.

NOTE TO PHYSICIAN: No specific antidote is known. Probable mucosal damage may contraindicate the use of gastric lavage. Treat Symptoms.

SECTION 5	PRIMARY ROUTES OF EXPOSURE
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1. Effects from Acute Exposure:

Eye exposure: Mild ocular irritation may occur. Irritation will depend on length of exposure, solution concentration, and first aid.

Skin exposure: Not expected to cause irritation to intact skin.

Inhalation: Not expected to be irritating to the respiratory tract.

Ingestion: Ingestion is not expected to be a primary route of exposure.

2. Effects from Chronic Exposure:

May cause drying of sensitive skin after prolonged contact.

SECTION 6	TOXICOLOGICAL INFORMATION
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Acute effects: Not tested. Low toxicity expected based on components.

Irritant effects: May cause mild eye irritation. Not expected to be irritating to intact skin.

Sensitization effects: Not tested, not expected to be a sensitizer.

Carcinogenic potential: Not tested by BioScientific. Not shown as a carcinogen by OSHA, IARC or NTP.

Target organ effects: Eyes (irritation) are expected to be the primary target organ of this product.

Other health effects: May cause drying of sensitive skin after prolonged contact.

SECTION 7	Reserved for ENVIRONMENTAL TOXICOLOGICAL INFORMATION
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SECTION 8	PHYSICAL AND CHEMICAL PROPERTIES
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Appearance	Dark brown liquid
Odor	Slight
Density @ 25°C	8.8 #/Gal. or 1.05 Kg./L
Flash Point	Not Flammable
Freezing Point	32°F (stratify)
Boiling Point	>200°F @ 1 atm.

Solubility	disperses in water
pH	11.69
Salt-out temperature	<28°F
Vapor Pressure.....	N/T
o/w Partition Coefficient	N/T
Oxidizing/Reducing Properties	N/T

NOTE: N/A = Not Applicable, N/T = Not Tested

SECTION 9

FIRE AND EXPLOSION INFORMATION

Flammable limits: Not flammable

Extinguishing media: Water fog, carbon dioxide, foam, dry chemical.

Special fire fighting procedures: Fire fighters should wear full protective gear, including self-contained breathing apparatus.

SECTION 10

REACTIVITY INFORMATION

Stability: Stable under ordinary conditions of use and storage. Product will stratify (freeze) at 32°F. May be thawed and used.

Incompatibility: Avoid strongly acidic conditions. Do not mix with Sulfuric Acid, Urea Sulfuric Acid, Phosphoric Acid.

Hazardous Decomposition Products: At high temperatures this solution may release toxic fumes of carbon, sulfur oxides and hydrocarbons.

SECTION 11

HANDLING PRECAUTIONS

Eye wash fountains in the work place are strongly recommended.

Rubber gloves, safety glasses or goggles, body-protective clothing and shoes are recommended.

SECTION 12

Reserved for
SATISFACTORY MATERIALS OF CONSTRUCTION

SECTION 13

SPILL, LEAK AND DISPOSAL PROCEDURES

SPILL AND LEAK RESPONSE GUIDELINES:

Important: Before responding to a spill or leak of this product, review each section of this MSDS. Follow the recommendations given in the Handling Precautions sections. Check the Fire and Explosion Data section to determine if the use of non-sparking tools is merited. Insure that spilled or leaked product does not come into contact with materials listed as incompatible. If irritating fumes are present, consider evacuation of enclosed

areas.

Emergency Response Assistance: Emergency technical assistance is available at any time from BioScientific, Inc., by calling (623) 932-4588.

Initially minimize area affected by the spill or leak. Block any potential routes to water system (e.g., sewers, streams, lakes, etc.). Based on the product's toxicological and chemical properties, and on the size and location of the spill or leak, assess the impact on contaminated environments (e.g. water systems, ground, air equipment, etc.). There are no methods available to completely eliminate any toxicity this product may have on aquatic environments. Minimize adverse effects on these environments. BioScientific, Inc. can be contacted for technical assistance. Determine if federal, state and/or local release notification is required (see Regulatory Classifications section of this MSDS). Recover as much of the pure product as possible into appropriate containers. Later, determine if this recovered product can be used for its intended purpose. Address clean-up of contaminated environments. Spill or leak residuals may have to be collected and disposed of. Clay, soil or commercially available absorbents may be used to recover any material that can not readily be recovered as pure product. Flushing residual material to an industrial sewer, if present at the site of a spill or leak incident, may be acceptable if authorized approval is obtained. If product and/or spill/leak residuals are flushed to an industrial sewer, insure that they do not come into contact with incompatible materials. Contact the person(s) responsible for the operation of your facility's industrial sewer system prior to intentionally flushing or pumping spills or leaks of this product to the industrial sewer.

DISPOSAL GUIDELINES

Note: Follow federal, state and local regulations governing the disposal of waste materials.

Contaminated Materials: Determine if waste containing this product can be handled by available industrial effluent system or other on-site waste management unit. If off-site management is required, contact a company experienced in industrial waste management. This product is not specifically listed in 40 CFR 261 as a Resource Conservation and Recovery Act (RCRA) hazardous waste. However, spill or leak residuals may meet the criteria of a characteristic hazardous waste under this Act. Check the characteristics of the material to be disposed of and/or the physical and reactivity data given in this MSDS for the neat product.

Container Disposal: Empty containers, as defined by appropriate sections of the RCRA, are not RCRA hazardous wastes. However, insure proper management of any residuals remaining in container.

SECTION 14

TRANSPORTATION AND SHIPPING INFORMATION

DOT Shipping Name: NOT REGULATED

SECTION 15

REGULATORY INFORMATION

The following Regulations are known to apply to the use and disposal of this product. Additional federal, state and local regulations may also be applicable.

SARA (Superfund Amendments and Reauthorization Act):

SARA 302 Extremely Hazardous Substances List: No components of this product are listed.

SARA 312 Hazard Category: Immediate (Acute) Health Hazard.

SARA 313 Toxic Chemicals List: No Section 313 listed substances are present above de minimus levels.

CERCLA (Comprehensive Environmental Response, Compensation and Liability Act): No components of this product are listed.

RCRA (Resource Conservation and Recovery Act) Listed Hazardous Wastes: No components of this product are listed.

CWA (Clean Water Act) Listed Substances: No components of this product are listed.

TSCA (Toxic Substances Control Act) Applicability: The components of this product are listed on the TSCA inventory or are exempted from the TSCA inventory.

FIFRA (Federal Insecticide, Fungicide and Rodenticide Act): This product is not a registered pesticide.

HMIS/NPCA Ratings: Health 1; Flammability 0; Reactivity 0

NFPA Ratings: Health 1; Flammability 0; Reactivity 0

STATE REGULATIONS

Various State Right to Know Acts: Non-proprietary hazardous chemicals are listed in Section 2 of this MSDS. Should you require further information on specific proprietary chemicals or inserts, please contact BioScientific's Regulatory Affairs Department.

The information on this Material Safety Data Sheet reflects the latest information and data that we have on hazards, properties, and handling of this product under the recommended conditions of use. Any use of this product or method of application which is not described in the Product Data Sheet is the responsibility of the user. This Material Safety Data Sheet was prepared to comply with the OSHA Hazard Communication regulations.

BioScientific, Inc. warrants that this product conforms to its chemical description and is reasonably fit for the purpose referred to in the directions for use when used in accordance with the directions under normal conditions. Buyer assumes the risk of any use contrary to such directions.

Seller makes no other warranty or representation of any kind, express or implied, concerning the product, including NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS OF THE GOODS FOR ANY OTHER PARTICULAR PURPOSE. No such warranties shall be implied by law and no agent of seller is authorized to alter this warranty in any way except in writing with a specific reference to this warranty.

The exclusive remedy against seller shall be a claim for damages not to exceed the purchase price of the product, without regard to whether such a claim is based upon breach of warranty or tort.

Any controversy or claim arising out of or relating to this contract, or breach thereof, shall be settled by arbitration in accordance with the commercial arbitration rules of the American Arbitration Association, and judgment upon the award rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.