

**SECTION 1 – CHEMICAL PRODUCT & COMPANY IDENTIFICATION**

**1.1. Product Identifier**

<b>Product form:</b>	Mixture
<b>Product name:</b>	Bioline Emerald
<b>Product code:</b>	N/A

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

<b>Recommended use of chemical:</b>	Agriculture and Horticulture – Suitable for use on soils and plants.
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**1.3. Details of the supplier of the safety data sheet**

<b>Manufacturer:</b>	Bioline Corporation
<b>Address:</b>	PO Box 429, 3971 Old Walnut Road, Alvinston Ontario Canada, N0N 1A0
<b>Phone:</b>	(800) 353-3086 or (519) 847-5748
<b>Fax:</b>	(519) 847-5878
<b>Emergency number:</b>	(613) 996-6666 Canutec (Call Collect)


**SECTION 2 – HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture**

Skin Corrosion/Irritation, Category 2B

Eye Damage/ Irritation, Category 2A

**2.2. Label elements**

<b>Hazard pictograms:</b>	
<b>GHS Signal Word:</b>	<b>Warning</b>
<b>GHS Hazard Statement:</b>	H303 – May be harmful if swallowed.
<b>GHS Precaution Statement:</b>	
<b>General:</b>	P264 – Wash any contact areas thoroughly after handling.

	P270 – Do not eat, drink or smoke when using this product.
	P280 – Wear protective gloves / eye protection / face protection.
<b>Response:</b>	P302+P352 – IF ON SKIN: Wash with plenty of soap and water.
	P305+P351+P338 – IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
	P332+P313 – If skin irritation occurs: Get medical advice/ attention.
	P337+P313 – If eye irritation persists: Get medical advice/ attention.
<b>Storage:</b>	Not applicable.
<b>Disposal:</b>	Not Applicable.

### 2.3. Other hazards

No additional information available.

## SECTION 3: COMPOSITION/INFORMATION INGREDIENTS

### 3.1 Substances

Not applicable.

### 3.2 Mixture

<u>Component</u>	<u>C.A.S. #</u>	<u>% wt.</u>	<u>GHS Classification</u>
Fulvic Acid	479-66-3	3-5	None

## SECTION 4 – FIRST AID MEASURES

### 4.1 Description of First Aid Measures

<b>General:</b>	If medical advice is needed, have product container or label at hand.
<b>Inhalation:</b>	Non-toxic in case of inhalation. No known effect or critical hazard. Get medical attention if symptoms occur. If any ill effects are felt, remove person to fresh air and keep at rest and in a position comfortable for breathing. Give oxygen or artificial respiration if necessary. Obtain medical attention if breathing difficulty persists or are severe.
<b>Skin:</b>	Non-toxic in case of skin contact. No known effects after skin contact. Wash affected area with plenty of water (at least 15 minutes). Obtain medical

	attention if irritation develops or persists. Wash contaminated clothing before reuse.
<b>Eyes:</b>	Immediately flush with water for a prolonged period (at least 15 minutes) while holding eyelids open. Check and remove contact lens. Obtain medical attention if irritation develops or persists.
<b>Ingestion:</b>	If swallowed, rinse mouth with water. Do not induce vomiting. Seek medical attention if a large amount is swallowed. Get medical advice and attention if you feel unwell.

**4.2. Most important symptoms and effects, both acute and delayed**

<b>Symptoms/ injuries</b>	Irritation to eyes, skin and respiratory tract.
<b>Symptoms/ injuries after inhalation</b>	None expected under normal conditions of use. Overexposure may be irritating to the respiratory tract.
<b>Symptoms/ injures after skin contact</b>	Contact may cause skin irritation. Prolonged or repeated exposure may dry the skin, causing irritation.
<b>Symptoms/ injures after eye contact</b>	Contact may cause eye irritation.
<b>Symptoms/ injures after ingestion</b>	May cause irritation of the lining of the mouth, throat, and gastrointestinal tract.

**4.3. Indication of any immediate medical attention and special treatment needed**

No additional information available.

**SECTION 5 – FIRE FIGHTING MEASURES**

**5.1. Extinguishing media**

<b>Suitable Extinguishing media:</b>	Not flammable. Use extinguishing media appropriate for surrounding fire.
<b>Unsuitable Extinguishing media:</b>	None known.

**5.2. Special hazards arising from the substance or mixture**

<b>Fire hazard:</b>	Under conditions of fire, toxic and/or corrosive fumes may be produced. Thermal decomposition may release toxic and/or corrosive fumes of hydrogen compounds, ammonia, nitrogen oxides, phosphorus oxides, and sulfur oxides
<b>Explosion hazard:</b>	Product is not explosive.

**5.3. Advice for firefighters**

<b>Fire fighting instructions:</b>	Keep upwind. Use water spray or fog for cooling exposed containers. Cool non-leaking, fire-exposed containers with water spray.
<b>Protection during firefighting:</b>	Firefighters must use full bunker gear including NIOSH/OSHA approved self-containing breathing apparatus and protective clothing to protect against potential hazardous combustion or decomposition products.
<b>Other information:</b>	None.

**SECTION 6 – ACCIDENTAL RELEASE MEASURES**

**6.1. Personal precautions, protective equipment and emergency procedures**

**General measures**

Handle in accordance with good industrial hygiene and safety practice.

**For non-emergency and emergency personnel**

<b>Protective equipment:</b>	Wear suitable protective clothing, gloves and eye/face protection.
<b>Emergency procedures:</b>	Stop leak if safe to do so. Evacuate unnecessary personnel. Contain any spills with dikes or absorbents to prevent migration into sewers or streams. Ventilate area.

**6.2. Environmental precautions**

No environmental hazards are associated with this product. Prevent from entering any waterways.

**6.3. Methods and materials for containment and cleaning up**

<b>For containment:</b>	Contain large spills with dikes and try to prevent migration and entry into drains or waterways.
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<b>Methods for cleaning up:</b>	Clean up any spills as soon as possible by diluting spills with large amounts of water and washing away. Practice good housekeeping – spillage can be slippery on smooth surfaces.
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## SECTION 7 – HANDLING & STORAGE

### 7.1. Precautions for safe handling

<b>Precautions for safe handling:</b>	Wear appropriate personal protective equipment (see section 8). Avoid all eyes and skin contact. Ensure there is adequate ventilation when handling.
<b>Hygiene measures:</b>	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking, and when leaving work. Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for safe storage, including any incompatibilities

<b>Storage conditions:</b>	Store tightly closed in a dry, cool and well ventilated place away from direct sunlight. Protect from physical damage.
<b>Incompatible materials:</b>	None known.
<b>Prohibitions on mixed storage:</b>	None known.

## SECTION 8 – EXPOSURE CONTROLS

### 8.1. Control parameters

No exposure limit values known.

### 8.2. Exposure controls

<b>Appropriate engineering controls:</b>	Ensure adequate ventilation, especially in confined areas.
<b>Hand protection:</b>	Wear protective gloves.
<b>Eye protection:</b>	Wear chemical safety goggles or full face shield.
<b>Skin and body protection:</b>	Wear suitable protective clothing.
<b>Respiratory protection:</b>	Not normally required, if vapors or mists exceed acceptable levels, wear a MSHA/NIOSH approved respirator.

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state:</b>	Liquid
<b>Appearance:</b>	Clear.
<b>Colour:</b>	Golden Yellow to Amber.
<b>Odour:</b>	Vinegar
<b>Odour threshold:</b>	No data available.
<b>pH:</b>	4 – 4.5
<b>Melting point:</b>	No data available.
<b>Freezing point:</b>	No data available.
<b>Boiling point:</b>	212°F / 100°C
<b>Flash point:</b>	Not applicable.
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas)</b>	Non-flammable substance. Non-combustible.
<b>Lower flammability limit:</b>	Not applicable.
<b>Upper flammability limit:</b>	Not applicable.
<b>Vapour pressure (mmHg):</b>	No data available.
<b>Vapour density:</b>	No data available.
<b>Relative density:</b>	1.02 – 1.06
<b>Solubility:</b>	Water: Miscible.
<b>Partition coefficient: N-Octanol/Water:</b>	No data available.
<b>Auto-ignition temperature:</b>	Not applicable.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.

**SECTION 10 – STABILITY AND REACTIVITY**

<b>Reactivity:</b>	Non-reactive at ambient temperature and under normal conditions of storage and use.
<b>Chemical Stability:</b>	Stable under normal conditions of storage and use.
<b>Possibility of Hazardous Reactions:</b>	Hazardous reactions will not occur under normal conditions of storage and use.
<b>Conditions to Avoid:</b>	Avoid high temperatures.

<b>Incompatible Materials:</b>	Incompatible with copper alloys, copper, zinc, brass, and bronze.
<b>Hazardous Decomposition Products:</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11 – TOXICOLOGICAL INFORMATION**

<b>Acute Toxicity</b>	Not classified			
<b>Ingredient Name</b>	<b>Result</b>	<b>Species</b>	<b>Dose</b>	<b>Exposure</b>
<b>Fulvic Acid</b>	LD50 Oral	Rat	No Data	-
	LD50 Dermal	Rabbit	No Data	-
	LC50 Inhalation	Not available	No Data	-

<b>Skin Contact:</b>	Not classified. Contact may cause skin irritation. Prolonged or repeated exposure may dry the skin, causing irritation.
<b>Eye Contact:</b>	Not classified. Contact may cause eye irritation.
<b>Inhalation:</b>	Not classified. No known effect or critical hazard. Overexposure may be irritating to the respiratory tract.
<b>Ingestion:</b>	Not classified. No known effect or critical hazard. May cause irritation of the lining of the mouth, throat, and gastrointestinal tract.
<b>Germ cell mutagenicity:</b>	Not classified. No known effect or critical hazard.
<b>Carcinogenicity:</b>	Not classified. No known effect or critical hazard.
<b>Specific target organ toxicity (repeated exposure):</b>	Not classified. No known effect or critical hazard.
<b>Reproductive toxicity:</b>	Not classified. No known effect or critical hazard.
<b>Specific target organ toxicity (single exposure):</b>	Not classified. No known effect or critical hazard.
<b>Aspiration hazard:</b>	Not classified. No known effect or critical hazard.
<b>Chronic symptoms:</b>	No known effect or critical hazard.

**SECTION 12 – ECOLOGICAL INFORMATION**

**12.1. Ecotoxicity**

**Conclusion/ summary:** No Data Available.

Product/ Ingredient name	Result	Species	Exposure
Fulvic Acid	No Data		

**12.2. Persistence and degradability**

**Conclusion/ summary:** No Data Available.

**12.3. Bioaccumulative potential**

**Conclusion/ summary:** Data not available.

**12.4. Mobility in soil**

**Conclusion/ summary:** Data not available.

**SECTION 13 – DISPOSAL CONSIDERATIONS**

**13.1. Waste treatment methods**

<b>Sewage disposal recommendations:</b>	Avoid release into the environment. Keep out of sewers and waterways.
<b>Waste disposal recommendations:</b>	May be disposed in a landfill or applied for agricultural use.
<b>Additional information:</b>	The generation of waste should be avoided or minimized wherever possible. Dispose of waste in accordance with all local, regional, national and international regulations.

**SECTION 14 – TRANSPORT INFORMATION**

Not controlled or regulated under: DOT/ TDG; ADR/ RID; IMDG; or ICAO/ IATA.

**14.1. UN number**

Not applicable.

**14.2 UN proper shipping name**

Not applicable.

**14.3. Packing Group**

Not applicable.

**14.4 Environmental Hazards**

Not Applicable.

**14.5 Additional Information**

Non-hazardous.



**SECTION 15 – REGULATORY INFORMATION**

**15.1. Canadian regulation**

<b>Canadian NPRI:</b>	None of the components are listed.
<b>CEPA Toxic Substances:</b>	None of the components are listed.
<b>Canadian DSL Inventory:</b>	All the components of this product are listed or exempted.

**15.2. U.S. Federal Regulations**

**SARA 311/312:** Immediate (acute) health hazard.

Delayed (chronic) health hazard.

CAS #	Hazard Components	TSCA Inventory	S. 302 (EHS)	S. 304 RQ	S. 313
479-66-3	Fulvic Acid	No	No	No	No

**SECTION 16 – OTHER INFORMATION**

**16.1. History**

**Date of printing:** 2021/04/28  
**Date of issue/ Date of revision:** 2021/04/28  
**Date of previous issue:** 2019/02/20  
**Version:** 2

**16.3. General comment**

This document contains health, safety, and environmental information useful to emergency response agencies, health care providers, manufacturers, and workers/employees. It does not replace the precautionary language, use directions, or the storage and disposal information found on the product label.

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