



# SAFETY DATA SHEET

Trade Name: Forage Foliar™

Version: 1.3

Version Date: December 11, 2018

## 1. PRODUCT AND COMPANY IDENTIFICATION

### 1.1 Product identifiers

Product name : Forage Foliar™  
Other Names : None  
CAS-No. : NA

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

Identified uses : For use in fertilizer applications.

### 1.3 Details of the supplier of the safety data sheet

Manufactured by: Advancing Eco Agriculture, LLC.  
4551 Parks West Road  
Middlefield, Ohio 44062  
United States

Telephone : +1 440-632-1012  
Email : [info@advancingecoag.com](mailto:info@advancingecoag.com)

### 1.4 Emergency telephone number

Emergency Phone # : +1 440-723-2916

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

#### GHS Classification

Reproductive toxicity: Category 2  
Carcinogenicity: Category 1B

### 2.2 GHS Label elements, including precautionary statements



Pictogram

Signal word Danger

Hazard statement(s)

H361 Suspected of damaging fertility or the unborn child  
H350 May cause cancer

Precautionary statement(s)

P102 Keep out of reach of children  
P202 Do not handle until all safety precautions have been read and understood  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P273 Avoid release to the environment.  
P280 Wear eye protection/face protection.  
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.  
P302 + P352 IF ON SKIN: Wash with plenty of 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.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.



P391  
P501

Collect spillage.  
Dispose of contents/ container to an approved waste disposal plant.

**2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - None**

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances**

**Hazardous components**

Component	Classification	Concentration*
<b>Citric Acid</b>		
CAS Number: 77-92-9	Eye Irrit. 2; H319	<4%
<b>Disodium octaborate tetrahydrate</b>		
CAS Number: 12280-03-4	Rep. 2: H361; Eye Irrit. 2A; H319	<2%
<b>Sodium molybdate</b>		
CAS Number: 7631-95-0	Ac. Tox. 4: H302	<1%
<b>Cobalt Sulfate</b>		
CAS Number: 10124-43-3	Ac. Tox. 4: H302; Eye Irrit. 2A: H319; Skin Sens. 1: H317; Resp. Sens. 1: H334 & H335; Carc. 1B: H350i; Rep. 2: H361; STOT 2 & 3: H373; Cr. Aqua. Tox. 1: H410	<1%
<b>Copper Sulfate</b>		
CAS Number: 7758-99-8	Ac. Tox. 4: H302; Skin Irrit. 2: H315; Eye Irrit. 2A: H319; Ac. Aqua. Tox 1: H400; Cr. Aqua. Tox 1: H410	<1%
<b>Zinc Sulfate</b>		
CAS Number: 7446-19-7	Ac. Tox. 4: H302; Eye Dam. 1: H318; Ac. Aqua. Tox. 1: H400	<1%
<b>Manganese Sulfate</b>		
CAS Number: 7785-87-7	STOT 2: H373	<1%
<b>Cinnamon oil</b>		
CAS Number: N/A	Carc. 1B: H350; Eye Irrit. 2A: H319; Aquatic chronic C3: H412; Flam. 4: H227; Mutagen 2: H341; Skin Irrit 3: H316	<1%
<b>Plant oil extract blend**</b>		
CAS Number: N/A	Acute tox. 1: H304; Carc. 2: H351; Eye Dam. 1: H318; Flam. 3: H226; Skin Irrit 2: H315; Skin Sens. 1: H317	<1%

\* Approximate weight percent. Exact weight percent is withheld as a trade secret.

\*\*Exact product name withheld as a trade secret.

**4. FIRST AID MEASURES**

**4.1 Description of first aid measures**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.



#### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in Section 2.2 and/or in Section 11.

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

No data available

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### 5. FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### 5.2 Special hazards arising from the substance or mixture

No data available

#### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

#### 5.4 Further information

No data available

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### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate non-essential personnel to safe areas. For personal protection see section 8.

#### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into waterways must be avoided.

#### 6.3 Methods and materials for containment and cleaning up

Soak up or vacuum without creating mists. Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

For disposal see section 13.

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### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of mists/aerosols. Provide appropriate ventilation. For precautions see section 2.2.

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

Keep container tightly closed in a dry and well-ventilated place.

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

Contains disodium octaborate tetrahydrate with an OSHA PEL of 10 mg/m<sup>3</sup> TWA and an ACGIH TLV of 5 mg/m<sup>3</sup>.

Contains cobalt sulfate with an OSHA PEL of 0.1 mg/m<sup>3</sup> TWA and an ACGIH TLV of 0.02 mg/m<sup>3</sup>.

Contains sodium molybdate with an OSHA PEL of 5 mg/m<sup>3</sup> and an ACGIH TLV of 5 mg/m<sup>3</sup>.

Contains copper sulfate with an OSHA PEL of 1 mg/m<sup>3</sup> (Cu dust) and an ACGIH TLV of 1 mg/m<sup>3</sup>

Contains zinc sulfate with an OSHA PEL of 15 mg/m<sup>3</sup> (Total dust) and 5 mg/m<sup>3</sup> (resp).

#### 8.2 Exposure controls

##### Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling.



## Personal protective equipment

### Eye/face protection

Wear safety glasses with splash guards when mixing. Use equipment for eye protection tested and approved under appropriate standards such as NIOSH (US) or EN 166(EU).

### Skin protection

Wear standard work clothing (long pants and long-sleeved shirt) to protect from skin exposure. Non-reactive nitrile gloves should be worn. Use proper glove removal techniques to avoid skin exposure. Wash and dry hands after using the product. Wash any contaminated clothing prior to re-use.

### Body Protection

Wear standard work clothing (long pants, long-sleeved shirt, leather or composite footwear covering entire foot).

### Respiratory protection

In the case of mist or aerosol formation, use respirator with an approved filter. Use NIOSH-approved respiratory protection.

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into waterways should be avoided.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid Color: dark brown
b) Odor	No data available
c) Odor Threshold	No data available
e) pH	3.56 at 25 °C (77 °F)
f) Melting/freezing point	~0°C (32°F)
g) Initial boiling point and boiling range	~100°C (212°F)
h) Flash point	No data available
i) Evaporation rate	No data available
j) Flammability	No data available
k) Upper/lower flammability or explosive limit	No data available
l) Vapor pressure	No data available
m) Vapor density	No data available
n) Relative density	9.7 lbs. per gallon
o) Water solubility	No data available
p) Partition coefficient n-octanol/water	No data available
q) Auto-ignition temperature	No data available
r) Decomposition temperature	No data available
s) Viscosity	No data available
t) Explosive properties	No data available
u) Oxidizing properties	No data available

### 9.2 Other safety information

No data available

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Exposure to sunlight, freezing temperatures or heat sources



**10.5 Incompatible materials**

Strong bases

**10.6 Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions – No data available

**10.7 Other decomposition products - No data available**

In the event of fire: see section 5.

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**11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

**Acute toxicity**

Oral: ATE<sub>mix</sub>>5000 mg/kg  
Inhalation: No data available  
Dermal: No data available

**Skin corrosion/irritation**

No data available.

**Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

California Proposition 65: WARNING: This product contains a material known to the State of California to cause cancer (cobalt sulfate).

**Reproductive toxicity**

This product contains materials (disodium octaborate tetrahydrate, cobalt sulfate) suspected of damaging fertility or the unborn child.

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

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**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bio-accumulative potential**

No data available

**12.4 Mobility in soil**

No data available



**12.5 Results of PBT and vPvB assessment**  
No data available

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**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

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**14. TRANSPORT INFORMATION**

This product is not a hazardous material regulated for transportation.

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**15. REGULATORY INFORMATION**

This product has been classified in accordance with OSHA Hazard Communication Standard (HCS) 2012 (US), EU CLP Regulation No. 1272/2008 and Hazardous Products Regulations (HPR) (Canada).

No components of this product are reportable under SARA Sections 302.

This product may contribute to your facility reporting requirements under SARA Sections 311, 312 and/or 313. See Section 3 for a list of possibly affected chemicals.

Components of this product are listed on the TSCA, Canadian DSL and REACH inventories.

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**16. OTHER INFORMATION**

The information contained in this Safety Data Sheet (SDS) is correct to the best of our knowledge, understanding and belief at the date of publication. This SDS is not intended to be all inclusive or exhaustive and shall be used as guidance only. The information in this document is applicable only to the product with respect to appropriate safety precautions and may not be applicable to combinations with other products. It does not represent any guarantee of the properties of the product. Advancing Eco Agriculture, LLC and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.