



SAFETY DATA SHEET

Trade Name: HoloMac™

Version: 1.3

Version Date: February 4, 2019

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : HoloMac™
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

1.4 Emergency telephone number

Emergency Phone # : +1 440-723-2916

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification

None

2.2 GHS Label elements, including precautionary statements

Pictogram : None

Signal word : None

Hazard statement(s) : None

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.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.
P501	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*
Citric Acid		
CAS Number: 77-92-9	Eye Irrit. 2; H319	<3%
Disodium octaborate tetrahydrate		
CAS Number: 12280-03-4	Rep. 2: H361; Eye Irrit. 2A; H319	<1%
Cinnamon oil		
CAS Number: 8015-91-6	Carc. 1B, H350; Eye Irrit. 2A, H319; Aquatic chronic C3, H412; Flam. 4, H227; Mutagen 2, H341; Skin Irrit 3, H316	<1%
Plant oil extract blend		
CAS Number: N/A	AH1, H304; CAR2, H351; EDI1, H318; FL3, H226; SCI2, H315; SS1, H317	<1%
Cobalt sulfate		
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%

* Approximate weight percent. Exact weight percent is 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

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



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.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters**
Contains disodium octaborate tetrahydrate with an OSHA PEL of 10 mg/m³ TWA and an ACGIH TLV of 2 mg/m³ TWA and 6 mg/m³ STEL.
Contains cobalt sulfate with an OSHA PEL of 0.1 mg/m³ TWA and an ACGIH TLV of 0.02 mg/m³.

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.



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	4.7 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	9.5 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

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.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Oral:	No data available
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

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

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

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.

14. TRANSPORT INFORMATION

This product is not a hazardous material regulated for transportation.

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.



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.

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