



ULTRA GRO LLC

Safety Data Sheet ZMB

SECTION 1: Identification

1.1 GHS Product identifier

Product name ZMB

1.2 Other means of identification

Ultra Gro ZMB
Multi-Action ZMB
ZMB

1.3 Recommended use of the chemical and restrictions on use

Agricultural/ Horticultural Use- Micronutrient Fertilizer

1.4 Supplier's details

Name Ultra Gro LLC
Address 1043 S Granada Ave
Madera CA 93637
USA

Telephone (559) 661-0977
email office@ultragro.com

1.5 Emergency phone number

(559) 661-0977

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200, 2012)

- Toxic to reproduction, Cat. 2
- Eye damage/irritation, Cat. 2B

2.2 GHS label elements, including precautionary statements

Pictograms



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Signal word

Warning

Hazard statement(s)

H320
H361

Causes eye irritation
Suspected of damaging fertility or the unborn child [effect, route]

Precautionary statement(s)

P264
P305+P351+P338

P337+P313
P201
P202
P280
P308+P313
P405
P501

Wash hands thoroughly after handling.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
IF exposed or concerned: Get medical advice/attention.
Store locked up.
Dispose of contents/container to local, state and federal regulations.

2.3 Other hazards which do not result in classification

Not Classified

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. UG Proprietary Blend of Non-Hazardous Ingredients

Concentration 65 - 85 % (weight)

2. Zinc Sulfate

Concentration 0.5 - 1.5 % (weight)
EC no. 231-793-3
CAS no. 7733-02-0
Index no. 030-006-00-9

- Acute toxicity, oral, Cat. 4
- Eye damage/irritation, Cat. 1
- Hazardous to the aquatic environment, short-term (acute), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic), Cat. 1

H302 Harmful if swallowed
H318 Causes serious eye damage
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

3. MANGANESE (II) SULFATE MONOHYDRATE

Concentration 1 - 5 % (weight)
CAS no. 10034-96-5

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4. Sodium borate pentahydrate

Concentration 1 - 5 % (weight)
CAS no. 11130-12-4

Trade secret statement (OSHA 1910.1200(i))

The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

The manufacturer lists no ingredients as hazardous to health according to OSHA 29 CFR 1910.1200.

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled	Move to fresh air. Call a physician if symptoms develop or persist.
In case of skin contact	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
In case of eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
If swallowed	Rinse mouth. Get medical attention if symptoms occur.
Personal protective equipment for first-aid responders	Wear eye/face protection. Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves.

4.2 Most important symptoms/effects, acute and delayed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

5.2 Specific hazards arising from the chemical

Sulphur oxides, zinc oxides, iron oxides, manganese oxides, and copper oxides

5.3 Special protective actions for fire-fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Further information

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Use standard firefighting procedures and consider the hazards of other involved materials. No unusual fire or explosion hazards noted.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear safety glasses with side shields (or goggles).
Wear appropriate chemical resistant gloves.
Wear suitable protective clothing.
In case of insufficient ventilation, wear suitable respiratory equipment.
Wash thoroughly after handling.
Wear protective gloves.
Avoid release to the environment.

6.2 Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3 Methods and materials for containment and cleaning up

Large Spills: This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with eyes. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Store in original tightly closed container. Keep container tightly closed. Store away from incompatible materials (see Section 10 of the SDS).

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. UG Proprietary Blend of Non-Hazardous Ingredients

[Mixture]

2. Zinc oxide sulfate (Zn₄O₃(SO₄)) (CAS: 59766-35-7 EC: 261-920-8)

3. Manganese (II) oxide (CAS: 1344-43-0 EC: 215-695-8)

4. Sodium borate pentahydrate (CAS: 11130-12-4)

8.2 Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain

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airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Face shield is recommended. Wear safety glasses with side shields (or goggles).

Skin protection

Wear appropriate chemical resistant gloves. Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended

Body protection

Wear appropriate chemical resistant gloves. Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Respiratory protection not required.

Environmental exposure controls

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Color	Tan to Brown
Odor	slight lignin
Odor threshold	Not available.
Melting point/freezing point	Not available.
Boiling point or initial boiling point and boiling range	302 °F (150 °C) estimated
Flammability	Noncombustible
Lower and upper explosion limit/flammability limit	Not available.
Flash point	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
pH	8.0-8.5
Kinematic viscosity	Not available.
Solubility	Soluble in water
Partition coefficient n-octanol/water (log value)	Not available.
Vapor pressure	Not available.
Evaporation rate	Not available.
Density and/or relative density	1.14
Relative vapor density	>1

SECTION 10: Stability and reactivity

10.1 Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2 Chemical stability

Material is stable under normal conditions.

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10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Contact with incompatible materials. Strong oxidizing agents.

10.5 Incompatible materials

Powdered metals, Anhydrous copper(II) sulfate, reacts violently with:, hydroxylamine, Magnesium

Boric acid: Potassium, Acid anhydrides

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

Boric acid: Hazardous decomposition products formed under fire conditions. - Borane/boron oxides

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Oral LD50 Rat 4789 mg/kg estimated

Skin corrosion/irritation

Causes skin irritation.

This product is not expected to cause skin sensitization.

No adverse effects due to skin contact are expected.

Serious eye damage/irritation

Causes serious eye irritation.

Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

This product is not expected to cause respiratory or skin sensitization.

Prolonged inhalation may be harmful.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

Specific target organ toxicity (STOT) - single exposure

No data available

Specific target organ toxicity (STOT) - repeated exposure

No data available

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Aspiration hazard

Prolonged inhalation may be harmful.
May be harmful if swallowed and enters airways

SECTION 12: Ecological information

Toxicity

Crustacea Fish: EC50 Daphnia Fish Species: 39.521 mg/l, 48 hours estimated
Fish LC50: 3.3 mg/l, 96 hours estimated

Persistence and degradability

No data is available on the degradability of this product.

Bioaccumulative potential

Not available.

Mobility in soil

No data available.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Packaging disposal

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Waste treatment

Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.

Sewage disposal

Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.

SECTION 14: Transport information

Not regulated as dangerous goods.

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

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15.1 Safety, health and environmental regulations specific for the product in question

US EPA TSCA public inventory

Chemical name: Zinc oxide sulfate (Zn4O3(SO4))
CAS number: 59766-35-7

US EPA TSCA public inventory

Chemical name: Manganese (II) oxide
CAS number: 1344-43-0

New Jersey Right To Know Components

Common name: ZINC SULFATE
CAS number: 7733-02-0

Pennsylvania Right To Know Components

Chemical name: SULFURIC ACID, ZINC SALT (1:1)
CAS number: 7733-02-0

Canadian Domestic Substances List (DSL)

Chemical name: Sulfuric acid, zinc salt (1:1)
CAS number: 7733-02-0

Canadian Domestic Substances List (DSL)

Chemical name: Sulfuric acid, zinc salt (1:1), monohydrate
CAS number: 7446-19-7

EU Table of Harmonised Entries (Annex VI to CLP)

Chemical name: Zinc sulfate
CAS number: 7733-02-0

US EPA TSCA public inventory

Chemical name: Zinc sulfate
CAS number: 7733-02-0

Massachusetts Toxic Use Reduction Act (TURA) list

Chemical name: Zinc sulfate
CAS number: 7733-02-0

Massachusetts Right To Know Components (105 CMR 670)

Chemical name: ZINC SULFATE
CAS number: 7733-02-0

15.2 Chemical Safety Assessment

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4) Not listed.

SARA 304 Emergency release notification Not regulated. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052) Not regulated.

SARA 302 Extremely hazardous substance Not listed.

SARA 311/312 Hazardous chemical

SARA 313 (TRI reporting) Not regulated.

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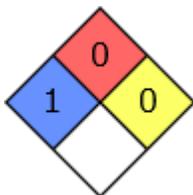
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No Other federal regulations Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) Not regulated.
Safe Drinking Water Act (SDWA) US state regulations

HMIS Rating

ZMB	
HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B

NFPA Rating



SECTION 16: Other information

16.1 Further information/disclaimer

The information and data contained herein is based upon facts considered to be correct as of the date hereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Ultra Gro, LLC be responsible for damages of any nature whatsoever resulting from the use or reliance upon this information. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which this information refers.