
SECTION 1: Identification

1.1 GHS Product identifier

Product name Crop Shield™

1.2 Other means of identification

Ultra Gro Crop Shield 3 - 4.5 - 2
UG Crop Shield™

1.3 Recommended use of the chemical and restrictions on use

Solar Protectant/Foliar Nutrient

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

1-800-424-9300 - CHEMTREC - U.S. Canada, Puerto Rico - 24 Hrs

SECTION 2: Hazard identification

General hazard statement

The material is not considered hazardous

2.1 Classification of the substance or mixture

GHS classification by OSHA (29 CFR 1910.1200, 2012)

Not a hazardous substance or mixture.

2.2 GHS label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Other hazards which do not result in classification

Not classified

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. Ammonium hydroxide (10-35% NH₃)

Concentration 0.1 - 1 % (weight)
EC no. 215-647-6
CAS no. 1336-21-6
Index no. 007-001-01-2

- Skin corrosion/irritation, Cat. 1B
- Hazardous to the aquatic environment, short-term (acute), Cat. 1

H314 Causes severe skin burns and eye damage
H400 Very toxic to aquatic life
SCLs/M-factors/ATEs STOT SE 3; H335: C ≥ 5%

2. Urea

Concentration 3 - 7 % (weight)
EC no. 200-315-5
CAS no. 57-13-6

3. Phosphoric acid

Concentration 7 - 13 % (weight)
EC no. 231-633-2

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CAS no. 7664-38-2
Index no. 015-011-00-6

- Skin corrosion/irritation, Cat. 1B

H314 Causes severe skin burns and eye damage
SCLs/M-factors/ATEs Skin Corr. 1B; H314: C ≥ 25%
Skin Irrit. 2; H315: 10% ≤ C <25%
Eye Irrit. 2; H319: 10% ≤ C <25%

4. Potassium or sodium hydroxide

Concentration 7 - 13 % (weight)

5. Ammonium thiosulfate

Concentration 5 - 10 % (weight)
EC no. 231-982-0
CAS no. 7783-18-8

6. Cobalt sulfate heptahydrate

Concentration 0.1 - 1 % (weight)
CAS no. 10026-24-1

7. EDTA, copper salt

Concentration 0.1 - 1 % (weight)
CAS no. 12276-01-6

8. Ferrate(1-), [[N,N'-1,2-ethanediy]bis[N-[(carboxy-kappa)methyl]glycinato-kappaN,kappaO]](4-)]-, hydrogen (1:1), (OC-6-21)-

Concentration 0.1 - 1 % (weight)
EC no. 241-171-3
CAS no. 17099-81-9

9. Manganate(2-), [[N,N'-1,2-ethanediy]bis[N-[(carboxy-kappa)methyl]glycinato-kappaN,kappaO]](4-)]-, sodium (1:2), (OC-6-21)-

Concentration 0.1 - 1 % (weight)
EC no. 239-407-5
CAS no. 15375-84-5

10. Sodium Molybdate Dihydrate

Concentration 0.1 - 1 % (weight)
CAS no. 10102-40-6

11. Zincate(2-), [[N,N'-1,2-ethanediy]bis[N-[(carboxy-kappa)methyl]glycinato-kappaN,kappaO]](4-)]-, sodium (1:2), (OC-6-21)-

Concentration 0.1 - 1 % (weight)
EC no. 237-865-0
CAS no. 14025-21-9

12. UG Proprietary Blend of Non-Hazardous Ingredients

Concentration 10 - 30 % (weight), Proprietary

Trade secret statement (OSHA 1910.1200(i))

UG Proprietary Blend of Non-Hazardous Ingredients

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice

IF ON SKIN: Wash affected areas with soap and water. Seek medical attention if irritation persists. Wash contaminated clothing before re-use.
IF IN THE EYES: Immediately flush with water for 15-20 minutes; remove contact lenses if present and easy to do – continue rinsing. Seek medical attention if irritation persists.

IF SWALLOWED: Rinse mouth. DO NOT INDUCE VOMITING unless directed by a medical professional. Seek medical attention if unwell.

SPECIAL TREATMENT: None known

HEALTH HAZARDS: See Section 11

If inhaled, Move the victim to fresh air. Seek medical attention if irritation persists.

In case of skin contact, Wash affected areas with soap and water. Seek medical attention if irritation persists. Wash contaminated clothing before re-use.

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In case of eye contact, immediately flush with water for 15-20 minutes, remove contact lenses if present and easy to do, and continue rinsing. Seek medical attention if irritation persists.

If swallowed, if the victim is alert and not convulsing, give one glass of water to dilute the material. DO NOT induce vomiting. Seek immediate medical attention.

4.2 Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11

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

No data available

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use media suitable for surrounding fire. No special media is required.

5.2 Specific hazards arising from the chemical

This product will emit toxic oxides/fumes and ammonia when heated to decomposition.

Ammonium thiosulfate: Not readily combustible. When heated to decomposition (as in fires), it emits toxic fumes of ammonia, hydrogen sulfide, nitrogen oxides, and sulfur oxides.

5.3 Special protective actions for fire-fighters

Wear full protective clothing and positive-pressure self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures

Wear PPE according to Section 8.

6.2 Environmental precautions

Prevent spilled material from entering storm drains or water bodies. If material enters a waterway, notify the appropriate authorities.

6.3 Methods and materials for containment and cleaning up

Contain material and place it in containers for use as intended or discard according to federal, state, and local regulations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Wash hands after handling the material. Do not eat, drink, or smoke while handling the material. Avoid breathing vapor/mists. Not intended for human consumption.

7.2 Conditions for safe storage, including any incompatibilities

Do not store food or feedstuffs. Store in a cool, dry, well-ventilated area away from incompatible materials.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. UG Liquid Fertilizer Blend

[Mixture]

2. Phosphoric acid (CAS: 7664-38-2)

TWA [Phosphoric acid] (Inhalation): 1 mg/m³; AU (AU/SWA)

STEL [Phosphoric acid] (Inhalation): 3 mg/m³; AU (AU/SWA)

IOELV-LTEL [Orthophosphoric acid] (Inhalation): 1 mg/m³; EU (EU/OSHA)

List no. 1 under Council Directive 98/24/EC as amended. The list was last updated on 8/29/2023.

IOELV-STEL [Orthophosphoric acid] (Inhalation): 2 mg/m³; EU (EU/OSHA)

List no. 1 under Council Directive 98/24/EC as amended. The list was last updated on 8/29/2023.

PEL [Phosphoric acid] (Inhalation): 1 mg/m³; US (US/OSHA)

OSHA Annotated Table Z-1, www.osha.gov

PEL [Phosphoric acid] (Inhalation): 1 mg/m³, (ST) 3 mg/m³; US (Cal/OSHA)

OSHA Annotated Table Z-1, www.osha.gov

REL [Phosphoric acid] (Inhalation): 1 mg/m³, (ST) 3 mg/m³; US (NIOSH)

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OSHA Annotated Table Z-1, www.osha.gov

8.2 Appropriate engineering controls

Constituents have no known exposure limits.

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

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

Eye/face protection

Safety glasses with side shields, goggles, or face shields recommended

Skin protection

Sleeved rubber gloves are recommended.

Respiratory protection

NIOSH-approved particulate/mist respirator, if required

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Light Brown
Color	Light Brown
Odor	No odor
Odor threshold	Not available
Melting point/freezing point	Not applicable
The boiling point or initial boiling point and boiling range	are Not applicable
Flammability	Not flammable
Lower and upper explosion limit/flammability limit	Not applicable
Flashpoint point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not applicable
pH	6.5 – 7.5
Kinematic viscosity	Not available
Solubility	Soluble
Partition coefficient n-octanol/water (log value)	Not available
Vapor pressure	Not available
Evaporation rate	Not available
Density and/or relative density	1.13
Relative vapor density	Not available

SECTION 10: Stability and reactivity

10.1 Reactivity

None under normal use conditions.

10.2 Chemical stability

The product is stable

10.3 Possibility of Hazardous Reactions

None under normal use conditions.

10.4 Conditions to avoid

Contact with strong acids

10.5 Incompatible materials

Aluminum, copper, and their alloys; galvanized metal

Ammonium thiosulfate: Seriously corrodes copper-based alloy.

Phosphoric acid: Strong bases, Powdered metals

10.6 Hazardous decomposition products

HCN, NO_x, PO_x, CO_x, NH₃

Ammonium thiosulfate: Emits toxic fumes of ammonia, hydrogen sulfide, nitrogen oxides, and sulfur oxides.

Phosphoric acid: Hazardous decomposition products formed under fire conditions. - Oxides of phosphorus

Other decomposition products - No data available

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SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

No data available

Ammonium thiosulfate: Skin: May cause skin irritation.

Eyes: Causes eye irritation.

Inhalation: Causes respiratory tract irritation.

Ingestion: This may cause gastrointestinal tract irritation with diarrhea.

It may affect behavior/central nervous system (somnolence, convulsions, ataxia). Respiration (emphysema), Kidneys (acute renal failure, acute tubular necrosis), blood (hemorrhage). The toxicological properties of this substance have not been thoroughly investigated.

Skin corrosion/irritation

It may cause skin irritation.

Severe eye damage/irritation

It may cause temporary and reversible eye irritation.

Respiratory or skin sensitization

It may irritate the skin, respiratory tract, mucous membranes, and gastrointestinal tract.

Germ cell mutagenicity

No data available

Carcinogenicity

None of the ingredients are known/listed carcinogens.

Reproductive toxicity

No data available

Specific target organ toxicity (STOT) - single exposure

No data available

Specific target organ toxicity (STOT) - repeated exposure

No data available

Aspiration hazard

It may irritate the respiratory tract, mucous membranes, and gastrointestinal tract.

SECTION 12: Ecological information

Toxicity

This product is not known to be ecotoxic.

Ammonium thiosulfate: Not available.

Persistence and degradability

This product is not known to be persistent.

Ammonium thiosulfate: Hazardous short-term degradation products are not likely to form. However, long-term degradation products may arise. The material itself and its degradation products are not toxic.

Bioaccumulative potential

This product is not known to have the potential to bioaccumulate.

Other adverse effects

Long-term degradation products may arise. Products of degradation are not expected to be hazardous.

Excessive nutrients in waterways may cause algal blooms that may harm aquatic life.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Use product for intended purpose where possible.

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Dispose of by all national, regional / state, and local regulations.

Waste treatment

Do not allow products to enter storm drains or waterways.

Sewage disposal

So, do not allow products to enter sewage treatment systems.

Other disposal recommendations

Reuse recovered product where possible.

SECTION 14: Transport information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

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

SARA 311/312 Hazards

Product name: UG 2-17-17

Acute Health Hazard, Chronic Health Hazard for: Phosphoric acid.

US EPA TSCA public inventory

Chemical name: Urea

CAS number: 57-13-6

Chemical name: Ferrate(1-), [[N,N'-1,2-ethanediy]bis[N-[(carboxy-kappaO)methyl]glycinato-kappaN,kappaO]](4-)-, hydrogen (1:1), (OC-6-21)-
CAS number: 17099-81-9

Chemical name: Manganate(2-), [[N,N'-1,2-ethanediy]bis[N-[(carboxy-kappaO)methyl]glycinato-kappaN,kappaO]](4-)-, sodium (1:2), (OC-6-21)-
CAS number: 15375-84-5

Chemical name: Zincate(2-), [[N,N'-1,2-ethanediy]bis[N-[(carboxy-kappaO)methyl]glycinato-kappaN,kappaO]](4-)-, sodium (1:2), (OC-6-21)-
CAS number: 14025-21-9

Chemical name: Ammonium thiosulfate
CAS number: 7783-18-8

Chemical name: Phosphoric acid
CAS number: 7664-38-2

Chemical name: Ammonium hydroxide (10-35% NH3)
CAS number: 1336-21-6

California Proposition 65 Chemicals List

WARNING: This product can expose you to chemicals, including Cobalt sulfate heptahydrate, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

California Prop. 65 components

Chemical name: Cobalt sulfate heptahydrate
CAS number: 10026-24-1

Pennsylvania Right To Know Components

Chemical name: THIOSULFURIC ACID (H2S2O3), DIAMMONIUM SALT
CAS number: 7783-18-8

Chemical name: PHOSPHORIC ACID
CAS number: 7664-38-2

Chemical name: AMMONIUM HYDROXIDE ((NH4)(OH))
CAS number: 1336-21-6

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Massachusetts Right To Know Components (105 CMR 670)

Chemical name: AMMONIUM THIOSULFATE
CAS number: 7783-18-8

Chemical name: PHOSPHORIC ACID
CAS number: 7664-38-2

Chemical name: AMMONIUM HYDROXIDE
CAS number: 1336-21-6

New Jersey Right To Know Components

Common name: PHOSPHORIC ACID
CAS number: 7664-38-2

Common name: AMMONIUM HYDROXIDE
CAS number: 1336-21-6

Massachusetts Toxic Use Reduction Act (TURA) list

Chemical name: Phosphoric acid
CAS number: 7664-38-2

Chemical name: Ammonium hydroxide
CAS number: 1336-21-6

SARA 302 Components

No chemicals in this material [Phosphoric acid] are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material [Phosphoric acid] does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

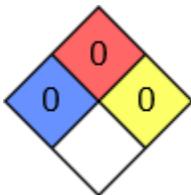
15.2 Chemical Safety Assessment

REPORTABLE QUANTITY: No requirements
RIGHT-TO-KNOW: No requirements
CA PROP 65: No requirements

HMIS Rating

Crop Shield	
HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	A

NFPA Rating



SECTION 16: Other information

S26 - in case of contact with eyes, rinse immediately with water and seek medical advice.
S28, after contact with skin, wash immediately with plenty of water
S36/37/38/45 - Wear suitable clothing, gloves, and eye/face protection

16.1 Further information/disclaimer

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

16.2 Preparation information

PREPARED BY: ULTRA GRO, LLC