



ULTRA GRO LLC

SAFETY DATA SHEET

Ultra Gro Liquid Cobalt 2.5%

SECTION 1: Identification

1.1 GHS Product identifier

Product name Ultra Gro Liquid Cobalt 2.5%

1.2 Other means of identification

Cobalt sulfate heptahydrate

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

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

SECTION 2: Hazard identification

General hazard statement

A slightly hazy, deep reddish, acidic liquid having a characteristic odor. The liquid and mists can cause eye irritation and may cause skin or respiratory tract irritation. This solution is toxic by ingestion.

2.1 Classification of the substance or mixture

GHS classification by: OSHA (29 CFR 1910.1200, 2012)

- Acute toxicity, oral, Cat. 4
- Skin corrosion/irritation, Cat. 2
- Carcinogenicity, Cat. 1B
- Germ cell mutagenicity, Cat. 2
- Toxic to reproduction, Cat. 1B
- Sensitization, respiratory, Cat. 1
- Sensitization, skin, Cat. 1

2.2 GHS label elements, including precautionary statements

Pictograms

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Signal word

Warning

Hazard statement(s)

H302
H315
H317
H334
H341
H350
H360

Harmful if swallowed
Causes skin irritation
May cause an allergic skin reaction
May cause allergy or asthma symptoms or breathing difficulties if inhaled
Suspected of causing genetic defects [route]
May cause cancer [route]
May damage fertility or the unborn child [effect, route]

Precautionary statement(s)

P201
P202
P261
P264
P270
P272
P280
P284
P301+P312
P302+P352
P304+P340
P308+P313
P321
P330
P332+P313
P333+P313
P342+P311
P362+P364
P363
P405
P501

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash ... thoroughly after handling.
Do not eat, drink, or smoke when using this product.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
[In case of inadequate ventilation] wear respiratory protection.
IF SWALLOWED: Call a POISON CENTER /doctor/...if you feel unwell,
IF ON SKIN: Wash with plenty of water/...
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF exposed or concerned: Get medical advice/attention.
Specific treatment (see ... on this label).
Rinse mouth.
If skin irritation occurs: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...
Take off contaminated clothing and wash it before reuse.
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents/container to federal, state and local regulations.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. Cobalt (II) sulfate heptahydrate

Concentration	1 - 5 % (weight)
EC no.	233-334-2
CAS no.	10124-43-3
Index no.	027-005-00-0

- Carcinogenicity, Cat. 1B
- Germ cell mutagenicity, Cat. 2
- Toxic to reproduction, Cat. 1B
- Acute toxicity, oral, Cat. 4
- Sensitization, respiratory, Cat. 1

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- Sensitization, skin, 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
H317	May cause an allergic skin reaction
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H341	Suspected of causing genetic defects [route]
H350i	
H360F	May damage fertility
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long-lasting effects
SCLs/M-factors/ATEs	Carc. 1B; H350i: C ≥ ,01 % M=10

Trade secret statement (OSHA 1910.1200(i))

Designates that a specific chemical identity and/or composition percentage has been withheld as a trade secret. The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled, immediately move to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth.

Method if the victim ingested or inhaled the substance; use the Holger Nielsen method (back pressure-arm lift) or

A proper respiratory device. If breathing is difficult, give oxygen. Call a physician.

In case of skin contact

In case of contact, immediately flush skin with plenty of clean running water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur.

In case of eye contact

In case of contact, immediately flush eyes with plenty of clean running water for at least 15 minutes, lifting the upper and lower lids occasionally. Remove contact lenses, if worn. Get medical attention.

If large quantities of this product are swallowed, call a physician immediately. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Personal protective equipment for first-aid responders

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.2 Most important symptoms/effects, acute and delayed

The liquid and mists can cause eye irritation and may cause skin or respiratory tract irritation. This solution is toxic by ingestion.

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

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂). Do not use a water jet as an extinguisher, as this will spread the fire.

5.2 Specific hazards arising from the chemical

When heated to dryness and decomposition, it emits sulfur oxide fumes and cobalt oxides, with trace or ultra-trace toxic oxide amounts, of phosphorus, potassium, nitrogen, sulfur, iron, magnesium, zinc, manganese, calcium, and sodium.

5.3 Special protective actions for fire-fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Move Containers from the fire area, if you can do so without risk.

Further information

This product is a non-combustible, acidic, aqueous solution of an inorganic Cobalt salt. The Uniform Fire Code health hazard classification for this product is: Irritant. This product may produce hazardous decomposition products.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures

Wearing recommended protective equipment and clothing, dike the spill, pick up the bulk of liquid using pumps or a vacuum truck, or absorb the liquid in sand or a commercial absorbent. Place in approved containers for recovery, disposal, or satellite accumulation. Neutralize the acidity of the remaining liquid, using soda ash, lime, or another agent appropriate for neutralizing acidic liquids. Flush the spill area with water; collect the rinsates for disposal or sewer, as appropriate

6.2 Environmental precautions

Avoid discharge into drains, water courses, or onto the ground.

6.3 Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material if it is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand, or earth and place into containers. Following product recovery, flush the area with water.

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid prolonged exposure. Observe good industrial hygiene practices.
Store in a tightly closed container. Store away from incompatible materials (see Section.

7.2 Conditions for safe storage, including any incompatibilities

Store away from incompatible materials and products in a cool, dry, well-ventilated area. Protect eyes, skin, and clothing from contact with this product. Wear recommended personal protective equipment. Avoid breathing mists or aerosols.

Use with adequate ventilation. Keep containers tightly closed when not in use. Wash thoroughly after handling.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Cobalt sulfate heptahydrate (CAS: 10026-24-1 EC: 233-334-2)

8.2 Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. 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 airborne levels at an acceptable level.

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

Eye/face protection

Wear chemical goggles (recommended by ANSI Z87.1- 1979), unless a full facepiece respirator is worn. Note: Always consult the protective eyewear manufacturer's data when determining the suitability of protective eyewear before use.

Skin protection

Wear Butyl Rubber, Neoprene, or Natural Rubber gloves.

Wear Butyl Rubber, Neoprene, or Natural Rubber boots if contact is likely.

Wear a Butyl Rubber, Neoprene, or Natural Rubber apron when handling this product.

The work area should have an eye wash station and a safety shower.

Note: Always consult the clothing/equipment manufacturer's permeation data before determining the suitability of clothing/equipment.

Body protection

Wear a Butyl Rubber, Neoprene, or Natural Rubber apron when handling this product.

The work area should have an eye wash station and a safety shower.

Note: Always consult the clothing/equipment manufacturer's permeation data before determining the suitability of clothing/equipment.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. If using this product creates mists or aerosols that exceed the ACGIH-TLV or may irritate, wear a NIOSH-approved full-facepiece or half-mask air-purifying cartridge respirator equipped with a good mist/particulate cartridge or supplied air.

Thermal hazards

Wear appropriate thermal protective clothing when necessary.

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	Liquid
Color	Deep Reddish
Odor	Slight
Odor threshold: Not available	
Melting point/freezing point	Not available

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Boiling point or initial boiling point and boiling range	> 212°F
Flammability	Not applicable
Lower and upper explosion limit/flammability limit: Not available	
Flash point	Not available
Explosive properties	Not available
Auto-ignition temperature: Not available	
Decomposition temperature: Not available	
Oxidizing properties: Not available	
pH	2.0 - 3.0
Kinematic viscosity	Not available
Solubility	soluble
Partition coefficient n-octanol/water (log value)	Not available
Vapor pressure	0.00001hPa estimated
Evaporation rate: Not available	
Density and/or relative density	1.0 - 1.2 g/cm ³ , 9.62 #/gallon
Relative vapor density	Not available

Further safety characteristics (supplemental)

Molecular formula :	CoSO ₄ 7H ₂ O
Molecular weight:	281.11 g/mol
Percent volatile:	96.3% as water estimated

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

The material is stable under normal conditions.

Hazardous decomposition: No dangerous decomposition products are known.

10.3 Possibility of hazardous reactions

No dangerous reaction is known under conditions of everyday use.

10.4 Conditions to avoid

Avoid heat, hot surfaces, sparks, open flames, and other ignition sources.

10.5 Incompatible materials

Incompatible materials: Strong oxidizing agents.

10.6 Hazardous decomposition products

When heated to dryness and decomposition, it emits toxic chloride fumes and toxic oxides of cobalt, with trace or ultra-trace toxic oxide amounts, of phosphorus, potassium, nitrogen, sulfur, iron, magnesium, zinc, manganese, calcium, and sodium.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD₅₀

Mouse 584 mg/kg

Rabbit 1800 mg/kg

Rat Species 424 mg/kg

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Skin corrosion/irritation

Direct contact with skin may cause temporary irritation.
May cause an allergic skin reaction.

Severe eye damage/irritation

Direct contact with the eyes may cause severe eye damage/eye irritation.

Respiratory or skin sensitization

May cause an allergic skin reaction.

Germ cell mutagenicity

Suspected of causing genetic defects.

Carcinogenicity

IARC 2B, possibly carcinogenic to humans.
NTP- Reasonably anticipated to be a human carcinogen.
ACGIH A3, animal carcinogen

Reproductive toxicity

May damage fertility.

Summary of evaluation of the CMR properties

IARC 2B, possibly carcinogenic to humans.
NTP- Reasonably anticipated to be a human carcinogen.
ACGIH A3, animal carcinogen

Specific target organ toxicity (STOT) - single exposure

Eyes, Skin, Mucous membranes & Lungs

Specific target organ toxicity (STOT) - repeated exposure

Eyes, Skin, Mucous membranes & Lungs

Aspiration hazard

Not an aspiration hazard

Additional information

Prolonged inhalation may be harmful.

SECTION 12: Ecological information

Toxicity

Cobalt sulfate heptahydrate is very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.
This product is heavier than water and completely soluble in water. This product can affect the pH of water. No specific environmental fate data are available.

Persistence and degradability

No data is available on the degradability of this substance.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

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Other adverse effects

This component is not expected to have any other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential).

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Disposal instructions, Local disposal regulations, Hazardous waste code

Collect, reclaim, or dispose of in sealed containers at a licensed waste disposal site. Dispose of by all applicable regulations.

The waste code should be assigned in a discussion between the user, the producer, and the waste disposal company.

Dispose of by local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of safely.

Instructions).

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

Packaging disposal

Dispose of by local regulations.

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

Waste treatment

Do not allow the product to enter storm drains or waterways.

Sewage disposal

Do not allow products to enter sewage treatment systems.

Other disposal recommendations

If this product is disposed of as shipped, it meets the hazardous waste criteria defined under 40 CFR 261 due to its corrosivity.

If this product becomes a waste, it will be dangerous, subject to the Land Disposal Restrictions under 40 CFR 268, and must be managed accordingly. As a hazardous liquid waste, it must be disposed of by local, state, and federal regulations in a permitted hazardous waste treatment, storage, and disposal facility.

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

US EPA TSCA public inventory

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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: Sodium molybdate
CAS number: 7631-95-0

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

California Proposition 65 Chemicals List

WARNING: This product can expose you to chemicals, including Cobalt sulfate, which the State of California has determined can cause cancer. For more information, go to www.P65Warnings.ca.gov for Cobalt (II) sulfate heptahydrate.

US EPA TSCA public inventory

Chemical name: Cobalt (II) sulfate heptahydrate
CAS number: 10124-43-3

California Prop. 65 components

Chemical name: Cobalt (II) sulfate heptahydrate
CAS number: 10124-43-3

15.2 Chemical Safety Assessment

COMPONENTS: Cobalt Sulfate Heptahydrate
OSHA Target Organs: Eyes, Skin, Mucous membranes & Lungs
Carcinogenic Potential:
Regulated by OSHA: No
Listed on NTP Report: Yes
Listed by IARC: Yes
IARC Group: Group 2B
ACGIH Appendix A: Yes (A3)
A1 Confirmed Human: Not applicable
A2 Suspected Human: Not applicable
Release Reporting
CERCLA (40 CFR 302)
Listed Substance: Not listed
Reportable Quantity: Not applicable
Category: Not applicable
RCRA Waste No.: Not applicable
Unlisted Substance: Not applicable
Reportable Quantity: Not applicable
Characteristic: Not applicable
RCRA Waste No.: Not applicable
Section 302 & 303 (40 CFR 355):
Listed Substance: Not listed
Reportable Quantity: Not applicable
Planning Threshold: Not applicable

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Section 311 & 312 (40 CFR 370):

Hazard Categories (product): Fire: N, Sudden Release of Pressure: N, Reactive: N,

Acute Health: Y, Chronic Health: Y

Planning threshold: 10,000 pounds

Section 313 (40 CFR 372):

Listed Toxic Chemical: Yes (Cobalt Compounds)

Reporting Threshold: 10,000 pounds

U.S. TSCA Status

Listed (40 CFR 710): No

State Regulations

State of California: Safe Drinking Water and Toxins Enforcement Act, 1986 (Proposition 65):

Carcinogen: Yes

Reproductive Toxin: No

Other Regulations

State Right To Know Laws: NJ, PA, IL

California Proposition 65

WARNING: This product can expose you to chemicals including arsenic, cadmium, and lead, which are known to the State of California to cause cancer and congenital disabilities or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

US state regulations

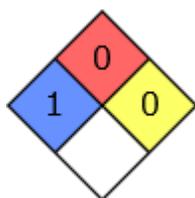
California Proposition 65

WARNING: This product can expose you to chemicals including arsenic, cadmium, and lead, which are known to the State of California to cause cancer and congenital disabilities or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

HMIS Rating

Ultra Gro Liquid Cobalt 2.5%	
HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	A

NFPA Rating



SECTION 16: Other information

16.1 Further information/disclaimer

The information provided in this Safety Data Sheet is correct to the best of the manufacturer's knowledge, information, and belief at the date of its publication; however, it is provided only as guidance for safe handling, use, processing, storage, transportation, disposal, and release of the Product. No warranties of any kind, either expressed or implied, including warranties of merchantability or fitness for a particular purpose, are made concerning the Product or the information provided herein, or that the Product or information herein may be used without infringing the intellectual property rights of others. The information provided in this Safety Data Sheet relates only to the specific Product designated. Unless specified herein, it may not be valid if the Product is used in combination with other materials or in any other process. The user assumes all risk and liability for loss, injury, damage, or expense due to any use, handling, storage, or disposal of the Product, and the Manufacturer

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recommends that the user conduct its tests of the Product to determine the suitability of the Product for the user's particular use.