



# Safety Data Sheet

## Game Changer™

EC no. 231-633-2  
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. Ammonium thiosulfate

Concentration 3 - 7 % (weight)  
EC no. 231-982-0  
CAS no. 7783-18-8

#### 5. Cobalt sulfate heptahydrate

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

#### 6. EDTA, copper salt

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

#### 7. Titanium dioxide

Concentration 10 - 30 % (weight)  
EC no. 215-282-2  
CAS no. 1317-80-2

#### 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 15 - 40 % (weight)

#### Trade secret statement (OSHA 1910.1200(i))

A mixture of UG Proprietary Blend of Non-Hazardous Ingredients

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### SECTION 4: First-aid measures

#### 4.1 Description of necessary first-aid measures

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.

Immediately flush with water for at least 20 minutes in case of eye contact. 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

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No data available

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

No data available

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## 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

When heated to decomposition, this product will emit toxic oxides/fumes and ammonia.

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Potassium phosphate dibasic: Potassium oxides

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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.

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## 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 it according to federal, state, and local regulations.

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## 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.

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

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

TWA [Phosphoric acid] (Inhalation): 1 mg/m<sup>3</sup>; AU (AU/SWA)

STEL [Phosphoric acid] (Inhalation): 3 mg/m<sup>3</sup>; AU (AU/SWA)

IOELV-LTEL [Orthophosphoric acid] (Inhalation): 1 mg/m<sup>3</sup>; 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/m<sup>3</sup>; 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/m<sup>3</sup>; US (US/OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

PEL [Phosphoric acid] (Inhalation): 1 mg/m<sup>3</sup>, (ST) 3 mg/m<sup>3</sup>; US (Cal/OSHA)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

REL [Phosphoric acid] (Inhalation): 1 mg/m<sup>3</sup>, (ST) 3 mg/m<sup>3</sup>; US (NIOSH)

OSHA Annotated Table Z-1, [www.osha.gov](http://www.osha.gov)

### 8.2 Appropriate engineering controls

Wear suitable clothing, gloves, and eye/face protection

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

#### Eye/face protection

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

### Skin protection

Sleeves rubber gloves recommended

### Respiratory protection

NIOSH-approved particulate/mist respirator, if required

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## SECTION 9: Physical and chemical properties

### Basic physical and chemical properties

Physical state	Liquid
Appearance	Brown
Color	Brown
Odor	Slight ammonia
Odor threshold	No Data
Melting point/freezing point	<28F
Boiling point or initial boiling point and boiling range	No Data
Flammability	Not Flammable
Lower and upper explosion limit/flammability limit	No Data
Flashpoint	NA
Auto-ignition temperature	NA
Decomposition temperature	No Data
pH	7.0 – 8.0
Kinematic viscosity	No Data
Solubility	Soluble in Water
Partition coefficient n-octanol/water (log value)	No Data
Vapor pressure	No Data
Evaporation rate	No Data
Density and/or relative density	1.26
Relative vapor density	No Data

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Nonreactive under normal conditions

### 10.2 Chemical stability

The product is stable

### 10.3 Possibility of Hazardous Reactions

The product is stable

### 10.4 Conditions to avoid

Nonreactive under normal conditions

### 10.5 Incompatible materials

Aluminum, copper, and their alloys; galvanized metal

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Potassium phosphate dibasic: Strong oxidizing agents

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Phosphoric acid: Strong bases, Powdered metals

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Ammonium thiosulfate: Seriously corrodes copper-based alloy.

### 10.6 Hazardous decomposition products

HCN, NOx, POx, COx, NH3

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Potassium phosphate dibasic: Other decomposition products - No data available  
In the event of fire: see section 5

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Phosphoric acid: Hazardous decomposition products formed under fire conditions. - Oxides of phosphorus  
Other decomposition products - No data available

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

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### SECTION 11: Toxicological information

#### Information on toxicological effects

##### Acute toxicity

No Data Available

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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

Causes severe eye irritation.

##### Respiratory or skin sensitization

No data available

##### Germ cell mutagenicity

Based on available data, classification data are not met.

##### Carcinogenicity

Based on available data, classification data are not met.

##### Reproductive toxicity

Based on available data, classification data are not met.

##### Specific target organ toxicity (STOT) - single exposure

No data available

##### Specific target organ toxicity (STOT) - repeated exposure

No data available

##### Aspiration hazard

It may be harmful if swallowed and enters the airways.

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### SECTION 12: Ecological information

#### Toxicity

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Ammonium thiosulfate: Not available.

#### Persistence and degradability

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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.

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### SECTION 13: Disposal considerations

#### Disposal methods

##### Product disposal

Use product for intended purpose where possible.

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

##### Other disposal recommendations

Reuse recovered product where possible.

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### SECTION 14: Transport information

#### DOT (US)

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Not dangerous goods

### IMDG

Not dangerous goods

### IATA

Not dangerous goods

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## SECTION 15: Regulatory information

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

#### US EPA TSCA public inventory

Chemical name: Potassium phosphate Monobasic

CAS number: 7778-77-0

Chemical name: Potassium phosphate dibasic

CAS number: 7758-11-4

Chemical name: Urea

CAS number: 57-13-6

Chemical name: ETHYLENEDIAMINE TETRAACETIC ACID, TRISODIUM SALT

CAS number: 150-38-9

Chemical name: Ammonium hydroxide (10-35% NH<sub>3</sub>)

CAS number: 1336-21-6

Chemical name: Phosphoric acid

CAS number: 7664-38-2

Chemical name: Ammonium thiosulfate

CAS number: 7783-18-8

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: Titanium dioxide

CAS number: 1317-80-2

#### Massachusetts Toxic Use Reduction Act (TURA) list

Chemical name: Ammonium hydroxide

CAS number: 1336-21-6

Chemical name: Phosphoric acid

CAS number: 7664-38-2

#### New Jersey Right To Know Components

Common name: AMMONIUM HYDROXIDE

CAS number: 1336-21-6

Common name: PHOSPHORIC ACID

CAS number: 7664-38-2

#### Pennsylvania Right To Know Components

Chemical name: AMMONIUM HYDROXIDE ((NH<sub>4</sub>)(OH))

CAS number: 1336-21-6

Chemical name: PHOSPHORIC ACID

CAS number: 7664-38-2

Chemical name: THIOSULFURIC ACID (H<sub>2</sub>S<sub>2</sub>O<sub>3</sub>), DIAMMONIUM SALT

CAS number: 7783-18-8

Chemical name: RUTILE (TiO<sub>2</sub>)

CAS number: 1317-80-2

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### Massachusetts Right To Know Components (105 CMR 670)

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

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

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

### 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.

### SARA 311/312 Hazards

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

### 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](http://www.P65Warnings.ca.gov).

### California Prop. 65 components

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

## 15.2 Chemical Safety Assessment

S26 - in case of contact with eyes, rinse immediately with water and seek medical advice.

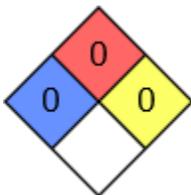
S28, after contact with skin, wash immediately with plenty of water

S36/37/38/45 - Wear suitable clothing, gloves, and eye/face protection

### HMIS Rating

Game Changer	
HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	
PERSONAL PROTECTION	A

### NFPA Rating



## SECTION 16: Other information

### 16.1 Further information/disclaimer

The information and data provided here are accurate as of today's date. Recipients are encouraged to assess the suitability of this information for their intended use before proceeding. Ultra Gro, LLC will not be liable for any damages resulting from the use of or reliance on this information. No representations or warranties, expressed or implied, regarding merchantability, fitness for a particular purpose, or any other aspect related to this information or the products it describes are made.