
SECTION 1: Identification

1.1 GHS Product identifier

Product name Cal-K™

1.2 Other means of identification

Cal-K
UG Cal -K
7 - 0 - 7 + 7 Calcium

1.3 Recommended use of the chemical and restrictions on use

Commercial Agriculture / Horticultural Use 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 Hrs

SECTION 2: Hazard identification

General hazard statement

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

2.1 Classification of the substance or mixture

GHS classification by OSHA (29 CFR 1910.1200, 2012)

- Acute toxicity, oral, Cat. 4
- Acute toxicity, dermal, Cat. 4
- Eye damage/irritation, Cat. 2A
- Acute toxicity, inhalation, Cat. 4

2.2 GHS label elements, including precautionary statements

Pictograms



Signal word

Danger

Hazard statement(s)

H302
H312
H319
H332

Harmful if swallowed
Harmful in contact with skin
Causes serious eye irritation
Harmful if inhaled

Precautionary statement(s)

P261
P264
P270
P271
P280
P301+P312
P302+P352
P304+P340
P305+P351+P338

Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash ... thoroughly after handling.
Do not eat, drink, or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear eye protection/face protection/protective gloves/protective clothing.
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 IN EYES: Rinse cautiously with water for several minutes. If contact lenses are present and easy to remove, continue rinsing.
Call a POISON CENTER/doctor/.../ if you feel unwell.
Rinse mouth.
If eye irritation persists: Get medical advice/attention.

P312
P330
P337+P313

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P362+P364
P501

Take off contaminated clothing and wash it before reuse.
Dispose of contents/container to local, state, and federal regulations.

Statement regarding ingredients of unknown toxicity

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. Potassium hydroxide

Concentration	15 - 40 % (weight)
EC no.	215-181-3
CAS no.	1310-58-3
Index no.	019-002-00-8

- Acute toxicity, oral, Cat. 4
- Skin corrosion/irritation, Cat. 1A

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
SCLs/M-factors/ATEs	Skin Corr. 1A; H314: C ≥ 5% Skin Corr. 1B; H314: 2% ≤ C < 5% Skin Irrit. 2; H315: 0,5% ≤ C < 2% Eye Irrit. 2; H319: 0,5% ≤ C < 2%

2. Calcium nitrate tetrahydrate

Concentration	15 - 40 % (weight)
EC no.	233-332-1
CAS no.	10124-37-5

3. Nitric acid (<40%)

Concentration	5 - 10 % (weight)
EC no.	231-714-2
CAS no.	7697-37-2
Index no.	007-030-00-3

- Oxidizing liquids, Cat. 3
- Acute toxicity, inhalation, Cat. 3
- Skin corrosion/irritation, Cat. 1A

H272	May intensify fire; oxidizer
H314	Causes severe skin burns and eye damage
H331	Toxic if inhaled
SCLs/M-factors/ATEs	Inhalation: ATE = 2.65 mg/L (Vapours) Ox. Liq. 3; H272: C ≥ 65 % Skin Corr. 1A; H314: C ≥ 20 % Skin Corr. 1B; H314: 5 % ≤ C < 20 %

Trade secret statement (OSHA 1910.1200(i))

Any concentration shown as a range is to protect confidentiality or is due to batch variation. There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Liquid fertilizer solution 7-0-7-7Ca Mixture 100.0

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled, Avoid inhaling vapor, spray, or mist. If inhaled, remove it to fresh air and get medical attention immediately. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus.

In case of skin contact, wash it with soap and water. Get medical attention if irritation develops.

In case of eye contact, Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Check for and remove any contact lenses. Get medical attention immediately.

If swallowed, Wash out your mouth with water. If the material has been swallowed and the exposed person is conscious, drink small quantities of water.

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Personal protective equipment for first-aid responders

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms/effects, acute and delayed

Causes severe eye damage.

Vapor may be irritating to the eyes and respiratory system.

Exposure to decomposition products may cause a health hazard.

Serious effects may be delayed following exposure.

No known significant effects or critical hazards.

It may cause burns to the mouth, throat, and stomach.

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

Adverse symptoms may include the following:

pain

watering

redness

No specific data.

No specific data.

It may cause burns to the mouth, throat, and stomach.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use an extinguishing agent suitable for the surrounding fire.

5.2 Specific hazards arising from the chemical

A pressure increase will occur in a fire, or the container may burst if heated.

5.3 Special protective actions for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

No action shall be taken involving any personal risk or without suitable training.

Firefighters should wear appropriate protective equipment and a self-contained breathing apparatus (SCBA) with a full facepiece operated in positive pressure mode.

Further information

Non-flammable.

Non-explosive.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Firefighters should wear appropriate protective equipment and a self-contained breathing apparatus (SCBA) with a full facepiece operated in positive pressure mode.

6.3 Methods and materials for containment and cleaning up

Stop leak if without risk. Move containers from the spill area. Dilute with water and mop up if water-soluble. If water-insoluble, absorb it with an inert dry material and place it in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Soak up with inert absorbent material and dispose of it by local and national regulations. Keep in suitable, closed containers for disposal. Materials may be used for their intended purposes.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash their hands and faces before eating, drinking, and smoking. They should also remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in the original container, protected from direct sunlight, in a dry, cool, and well-ventilated area, away from incompatible materials and food and drink. Store locked up. Keep the container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Bund storage facilities to prevent soil and water pollution in the event of spillage.

SECTION 8: Exposure controls/personal protection

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8.1 Control parameters

1. Potassium hydroxide (CAS: 1310-58-3 EC: 215-181-3)

PEL-C (Inhalation): 2 mg/m³; US (NIOSH)

PEL-C (Inhalation): 2 mg/m³; US (Cal/OSHA)

TWA (Inhalation): 2 Peak limitation mg/m³; AU (AU/SWA)

2. Nitric acid (<40%) (CAS: 7697-37-2)

TWA [Nitric acid] (Inhalation): 2 ppm; 5.2 mg/m³; AU (AU/SWA)

STEL [Nitric acid] (Inhalation): 4 ppm; 10 mg/m³; AU (AU/SWA)

IOELV-STEL [Nitric acid] (Inhalation): 2.6 mg/m³; EU (EU/OSHA)

List no. 2 under Council Directive 98/24/EC as amended. The list was last updated on 8/25/2023.

IOELV-STEL [Nitric acid] (Inhalation): 1 ppm; EU (EU/OSHA)

List no. 2 under Council Directive 98/24/EC as amended. The list was last updated on 8/25/2023.

PEL [Nitric acid] (Inhalation): 2 ppm; US (US/OSHA)

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

PEL [Nitric acid] (Inhalation): 5 mg/m³; US (US/OSHA)

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

PEL [Nitric acid] (Inhalation): 2 ppm, (ST) 4 ppm; US (Cal/OSHA)

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

REL [Nitric acid] (Inhalation): 2 ppm, (ST) 4 ppm; US (NIOSH)

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

8.2 Appropriate engineering controls

If user operations generate dust, fumes, gas, vapor, or mist, use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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

Pictograms



Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dust. Recommended: Tightly-fitting goggles,

Skin protection

If a risk assessment indicates this is necessary, chemical-resistant, impervious gloves complying with an approved standard should always be worn when handling chemical products. We recommend gloves typically greater than 0.35 mm thick for general applications. It should be emphasized that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the glove's permeation efficiency will depend on the exact composition of the glove material.

Body protection

Based on the task and the risks involved, personal protective equipment for the body, appropriate footwear, and any additional skin protection measures should also be selected.

Respiratory protection

In case of inadequate ventilation, wear respiratory protection.

NIOSH-approved particulate/mist respirator, if required

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state

Appearance

Odor

Odor threshold

Melting point/freezing point

The boiling point or initial boiling point and boiling range

Liquid

Light Yellow

Slight Ammonia

Not applicable

Not available

220F

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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	6.0 - 7.0
Kinematic viscosity	Not available+
Solubility	Soluble in water
Partition coefficient n-octanol/water (log value)	Not applicable
Vapor pressure	is Not applicable
Evaporation rate	Not applicable
Density and/or relative density	1.39
Relative vapor density	Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity is available for this product or its ingredients.

10.2 Chemical stability

The product is stable.

10.3 Possibility of Hazardous Reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Excessive Heat. Avoid contamination by any source, including metals, dust, and organic materials.

10.5 Incompatible materials

Water-reactive materials; aluminum, copper, and their alloys; galvanized metal

Potassium hydroxide, Nitro compounds, Organic materials, Magnesium, Copper, and Water react violently with Metals and light metals; contact with aluminum, tin, and zinc liberates hydrogen gas. Contact with nitromethane and other similar nitro compounds causes the formation of shock-sensitive salts. There is a vigorous reaction with Alkali metals, Halogens, Azoides, and Anhydrides.

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

NO_x, CO_x

Potassium hydroxide: Other decomposition products - No data available
Hazardous decomposition products formed under fire conditions. - Potassium oxides
In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

HAZARDOUS COMPONENT

Liquid fertilizer solution

ACGIH - 2 mg/m³ (CEILING) (KOH)

OSHA PEL - 5 mg/m³ 2 ppm (nitric acid) 4 ppm (STEL) (nitric acid)

ORAL: 214 mg/kg (potassium hydroxide) -- 3,900 mg/kg (calcium nitrate)

DERMAL: None listed

INHALATION: 0.13 mg/l (4 hr) (nitric acid)

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

Does not cause genetic defects.

Carcinogenicity

None of the ingredients are known/listed carcinogens.

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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

Based on available data, classification data are not met

Aspiration hazard

It may be harmful if swallowed and enters the airways.

SECTION 12: Ecological information

Other adverse effects

This product is not known to be ecotoxic, persistent, or have the potential to bioaccumulate.

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Dispose of in accordance with all national, regional / state, and local regulations.

Reuse recovered product where possible.

Waste treatment

do not allow product to enter storm drains, waterways, or sewers

Avoid dispersal of spilled material.

Sewage disposal

Waste should not be disposed of untreated in the sewer unless it is fully compliant with the requirements of all authorities with jurisdiction.

SECTION 14: Transport information

DOT (US)

UN Number: Not regulated.

Class:

Packing Group:

Proper Shipping Name:

Reportable quantity (RQ):

Marine pollutant:

Poison inhalation hazard:

IMDG

UN Number:

Class:

Packing Group:

EMS Number:

Proper Shipping Name:

IATA

UN Number:

Class:

Packing Group:

Proper Shipping Name:

SECTION 15: Regulatory information

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

New Jersey Right To Know Components

Common name: POTASSIUM HYDROXIDE

CAS number: 1310-58-3

Common name: CALCIUM NITRATE

CAS number: 10124-37-5

Common name: NITRIC ACID

CAS number: 7697-37-2

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Pennsylvania Right To Know Components

Chemical name: POTASSIUM HYDROXIDE (K(OH))
CAS number: 1310-58-3

Chemical name: NITRIC ACID
CAS number: 7697-37-2

SARA 302 Components

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

SARA 313 Components

This material [Potassium hydroxide] contains no chemical components with known CAS numbers exceeding the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard for: Potassium hydroxide.

Massachusetts Toxic Use Reduction Act (TURA) list

Chemical name: Potassium hydroxide
CAS number: 1310-58-3

Chemical name: Nitric acid
CAS number: 7697-37-2

US EPA TSCA public inventory

Chemical name: Potassium hydroxide
CAS number: 1310-58-3

Chemical name: Calcium nitrate tetrahydrate
CAS number: 10124-37-5

Chemical name: Nitric acid (<40%)
CAS number: 7697-37-2

Massachusetts Right To Know Components (105 CMR 670)

Chemical name: POTASSIUM HYDROXIDE
CAS number: 1310-58-3

Chemical name: NITRIC ACID
CAS number: 7697-37-2

15.2 Chemical Safety Assessment

SARA SECTION 311 / 312 HAZARD CATEGORY: IMMEDIATE HAZARD: SERIOUS EYE DAMAGE - Category 1

⚠ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

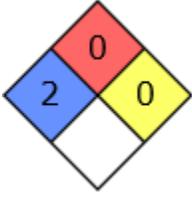
HMIS Rating

Cal-K	
HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B

NFPA Rating

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SECTION 16: Other information

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.