

According to 29 CFR 1910.1200

# CALCIUM AMMONIUM NITRATE (CAN 17)

Date of issue: December 28, 2011 Revision date: September 01, 2023 Version. 5

## SECTION 1.- IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product form Substance or Mixture

Substance name Calcium ammonium nitrate solution

CAS No. Not available

Formula  $(Ca(NO_3)_2) + (NH_4NO_3) + H_2O$ 

Synonyms CAN 17

1.2 Relevant identified uses of the substance or mixture and uses advised against

**Use of the substance/mixture** According to the technical sheet of the product.

1.3 Details of the supplier of the safety data sheet

Pima Chemicals & Fertilizers, LLC

1370 Nogales, Az.

Tel. 011 52 (662) 182-0559 rgutierrez@quimicapima.com

www.quimicapima.com

Química Pima, S.A. de C.V.

Del Cobre 20, Parque Industrial Hermosillo. Hermosillo, Sonora, México. C.P. 83297

Tel. 011 (662) 251-0010 ventas@guimicapima.com

1.4 Emergency telephone number

Emergency number CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

## **SECTION 2.- HAZARD IDENTIFICATION**

## 2.1. GHS-US classification

Skin corrosion/irritation 2 H315

Serious eye damage/irritation 2A H319

2.2. Label elements

**GHS-US** labelling

Hazard pictograms (GHS-US)

Signal word (GHS-US): Danger

Hazard statement (GHS-US): H315 Causes severe skin burns and eye damage.

H319 Causes serious eye damage.

**Precautionary statements (GHS-US):** P264 Wash exposed skin thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water. P332+P313 In case of skin irritation: consult a doctor.

P362+P364 Remove contaminated clothing and wash it before reuse.

P305+P351+P338 IF IN EYES: Rinse thoroughly with water for several minutes.



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Remove contact lenses, when present and can be done easily. Continue washing.

P337+P313 If eye irritation persists, see a doctor

P405 Store locked up.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/

international regulations.

2.3. Other hazards None to our knowledge.

2.4 Unknown acute toxicity (GHS-US) Not applicable.

## SECTION 3.- COMPOSICION / INFORMATION OF INGREDIENTS

3.1 Mixture Mixture

3.2 Substance Not applicable

Name	Product identifier	%	GHS-US classification
Calcium Nitrate (Ca(NO <sub>3</sub> ) <sub>2</sub> )	(CAS No.) 10124-37-5	36	Ox. Sol. 3; H272 Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Ammonium Nitrate (NH <sub>4</sub> NO <sub>3</sub> )	(CAS No.) 6484-52-2	15	Skin Irrit. 3, H31 Eye irritation 2A, H319
Water (H <sub>2</sub> O)	(CAS No.) 7732-18-5	49	Not classified

## SECTION 4.- FIRST AID MEASURE

## 4.1. Description of first air measure

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice. First-aid measures general

First-aid measures after eye

contact

Immediately flush eyes with plenty of running water for less than 30 minutes. Keep your eyes open

during washing. Get specialized medical attention right away.

First-aid measures after

skin contact

Quickly remove contaminated clothing and accessories. Immediately wash the affected area with plenty of running water. Get medical attention right away if symptoms continue after washing.

First-aid measures after

inhalation

No specific effects or critical hazards are known. In the event of symptoms of illness, proceed as follows. Transport the person outdoors and keep them in a position that makes it easier for them to

breathe, Call a POISON CENTER OR MEDICAL.

First-aid measures after

ingestion

Do not induce vomiting. Wash your mouth taking care not to swallow the washing water, immediately after drinking plenty of water or milk. If the person is unconscious do not give anything by mouth. If you are not breathing, apply artificial respiration (NOT mouth to mouth, wear a pocket mask), if breathing is difficult, administer oxygen. Get immediate medical attention.

## 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation No specific effects or critical hazards are known.

Symptoms/injuries after skin contact Causes skin irritation

Symptoms/injuries after eye contact Causes Serious eye damage/irritation

Symptoms/injuries after ingestion

It can cause irritation of the digestive tract with the accompaniment of nausea, vomiting and diarrhea. It can interfere with the oxygen carrying capacity of the blood, if it is ingested in large quantities or over a long period of time. People with anemia, intestinal disease, or



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children are more likely to develop effects. Overexposure by ingestion is unlikely under normal working conditions.

ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Skin irritation. Eye irritation. Inhalation Under normal conditions of storage and use, hazardous decomposition products should not be produced but if it is exposed with high temperature can release dangerous decomposition products, such as carbon monoxide and dioxide, smoke, nitrogen oxides, etc. Adverse symptoms may include the following: headache, irritation of the respiratory tract.

**Chronic symptoms** 

4.3. Indications of any immediate medical attention and special treatment needed Treat symptomatically.

## **SECTION 5.- FIREFIGHTING MEASURES**

5.1. Extinguishing media

Suitable extinguishing media Not flammable. Any fire extinguishing media may be used on nearby fires.

**Unsuitable extinguishing media**No unsuitable extinguishing media known.

5.2. Special hazard arising from the substance or mixture

Fire hazard DIRECT FIRE HAZARD. Noncombustible. INDIRECT FIRE HAZARD. Promotes combustion.

Reactions involving a fire hazard: see "Reactivity Hazard".

Explosion hazard

DIRECT EXPLOSION HAZARD. No data available on direct explosion hazard. INDIRECT

EXPLOSION HAZARD. No data available on indirect explosion hazard.

Reactivity

Under fire conditions, this material can decompose the product emitting toxic fumes (NH<sub>3</sub>, NO,

NO<sub>2</sub>). Keep unnecessary people away.

5.3. Advice for firefighters

Precautionary measures fire

Not combustible. Decomposes with heat. It releases toxic fumes when heated to decomposition.

Dangerous if allowed drying. The residues can acquire oxidizing properties.

Firefighting instructions

Protection during firefighting

It is not an oxidizer at the concentration that is manufactured. It may act as an oxidizing liquid if concentrated by evaporation. If evaporated to the degree of dryness, it acts as an oxidizing agent. In the event of a fire, flood the area with amounts of water even after the fire has been extinguished. Self-contained breathing apparatus should be worn to avoid inhalation of toxic fumes. When heated to decomposition, it emits toxic fumes (NH3, NO, NO2). Water runoff can cause environmental

damage. Contain the water that was used to extinguish the fire.

In the event of a fire, quickly isolate the area by evacuating all persons from the vicinity of the incident site. Firefighters must wear suitable protective equipment and self-contained breathing apparatus (SCBA) with a full-face mask operating in positive pressure mode. Firefighter clothing (including helmets, gloves, and protective boots) has a basic level of protection in the event of a

chemical incident

## **SECTION 6. - ACCIDENTAL RELEASE MEASURES**

## 6.1. Personal precautions, protective equipment and emergency procedures

### 6.1.1. For non-emergency personnel

Protective equipment

Wear appropriate breathing apparatus when ventilation is insufficient. Put on appropriate personal protective equipment. If special clothing is required to cope with the spill, consider the information in Section 8 on appropriate and unsuitable materials. You must not take any action that poses an excessive risk or if personnel are not adequately trained. Evacuate the surroundings. Keep unnecessary and unprotected

Emergency procedures



Observations

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personnel away. Do not touch or walk through spilled material. Provide adequate ventilation.

Not combustible. Decomposes with heat. It releases toxic fumes when heated to decomposition. Dangerous if allowed to dry. The residues can acquire oxidizing properties.

6.1.2. For emergency responders

Do not attempt to take action without suitable protective equipment. For further Protective equipment

information refer to section 8 Exposure controls/personal protection"

Ventilate area.

Emergency procedures 6.2. Environmental precautions

Stop leaks if possible. Contain spills by all available means. Cover the drains. Do not allow it to enter the ground / subsoil. Do not pour into the drain or into the environment.

6.3. Methods and material for containment and cleaning up.

Contain released substance, pump into suitable containers. Consult "Material-handling" to select material Method for containment of containers. Plug the leak, cut off the supply. Knock down/dilute vapor cloud with water spray. If

reacting: dilute toxic gas/vapor with water spray. Take account of toxic/corrosive precipitation water.

Prevent dispersion by covering with dry sand/earth. Scoop solid spill into closing containers. See

Methods for cleaning up "Material-handling" for suitable container materials. Spill must not return in its original container. Clean

contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

Dispose of materials, liquid or solid residues at an authorized site. Other information

6.4 Reference to other sections

For further information refer to section 8: Exposure-controls/personal protection.

### SECTION 7.- HANDLING AND STORAGE

## 7.1. Precautions for safe handling

Precautions for safe handling

Put on appropriate personal protective equipment (see Section 8). Do not eat. Do not allow it to get into eyes or contact with skin or clothing. Do not breathe vapors or mists. Do not eat. If during normal use the material poses a respiratory hazard, ensure adequate ventilation or use an appropriate respirator. Keep in the original container or in an authorized alternative one made of compatible material, keep tightly closed when not in use. Keep away from clothing, incompatible materials and combustible materials. Keep away from alkalis. Keep away from heat. Empty containers retain product residue and can be dangerous.

## 7.2. Conditions for safe storage, including any incompatibilities

Keep only in the original container in a cool, well-ventilated place away from incompatible Storage conditions

materials. Keep container closed when not in use.

Keep substance away from: combustible materials. Reducing agents. (Strong) acids, metals. Incompatible products

Organic materials.

**Heat-ignition** Keep substance away from: heat sources.

Store in a dry area. Store at room temperature. Keep container in a well-ventilated place. Meet Storage area

the legal requirements.

SPECIAL REQUIREMENTS: closing. Dry. Correctly labelled. Meet the legal requirements. Special rules on packaging

Secure fragile packaging in solid containers.

Appropriate packing material: the one supplied by the manufacturer. Stainless steel, glass or Packaging materials

HDPE.

7.3 Specific end use(s) No additional information available.



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## SECTION 8.- EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1. Control parameters

Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Calcium Nitrate 10124-37-5	Not available	Not available	Not available
Ammonium Nitrate 6484-52-2	Not available	Not available	Not available

## 8.2. Exposure controls

Ensure good ventilation of the workstation. Extraction to remove dust at its source. Appropriate engineering controls

Emergency sources for eyewash and safety showers should be available in the immediate

vicinity of any potential exposure.

Vapor production: vapor mask with 3M 6003 organic vapor/acid gas cartridge. Gloves. Personal protective equipment

Safety glasses.

GIVE GOOD RESISTANCE: nitrile, neoprene or PVC. GIVE POOR RESISTANCE: Material for protective clothing

natural fibers.

Hand protection Gloves. Recommended: nitrile, neoprene or PVC.

Safety glasses. In case of vapor production: protective goggles. Eye protection

Protective clothing. Recommended: Tychem SL, Tychem F, Tychem ThermoPro, Tychem Skin and body protection

TK or equivalent.

Vapor production: vapor mask with 3M 6003 organic vapor/acid gas cartridge in case of Respiratory protection

inadequate ventilation.

**Environmental exposure controls** Avoid release to the environment.

## SECTION 9.- PHYSICAL AND CHEMICAL PROPERTIES

## 9.1 Information on basic physical and chemical properties

Physical state: Liquid. Appearance: Liquid.

Odor: Odorless. Color: Colorless to slightly brown

Molecular mass No data available. No data available. Odor threshold

Ha 5 - 6.5

pH solution No data available.

Relative evaporation rate (butyl acetate=1) No data available. **Melting point** -2°C (28.4°F)

Freezing point No data available.

121°C (249.8°F) **Boiling point** 

Flash point Not applicable.

Self-ignition temperature Not applicable.

**Decomposition temperature** No data available.

No data available. Flammability (solid, gas)

No data available. Vapor pressure



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Relative vapor density No data available.

Relative density at 30°C 1.5 g/cm<sup>3</sup>

Solubility Soluble in water Log Pow No data available.

No data available. Log Kow

Viscosity, kinematic No data available. Viscosity, dynamic No data available.

**Explosive properties** No data available.

Oxidizing properties No data available. **Explosive limits** No data available.

9.2 Other information No additional information available.

## SECTION 10.- STABILITY AND REACTIVITY

It is not an oxidizer in the manufacturing concentration. It may act as an oxidizing liquid if 10.1 Reactivity

concentrated by evaporation. It can react explosively when mixed with chlorinated

materials such as hypochlorites.

10.2 Chemical stability The chemical is stable under normal conditions.

10.3 Possibility of hazardous reactions None under normal conditions of use.

10.4 Conditions to avoid Do not allow it to dry out. Avoid high temperatures in combination with high pressures.

10.5 Incompatible materials Incompatible with halogens. It may be incompatible with some metals used in storage and

handling equipment.

Under normal conditions of storage and use, hazardous decomposition products should

10.6 Hazardous decomposition products not be produced but At very high temperatures it is possible the formation of poisonous

gases including nitrogen oxides.

## SECTION 11.-TOXICOLOGICAL INFORMATION

### 11. 1. Information on toxicological effects

Likely routes of exposure Skin and eyes contact; inhalation; ingestion.

Not classified. Acute toxicity

Name	LD <sub>50</sub> oral	LD <sub>50</sub> dermal	LC <sub>50</sub> inhalation
CAN 17	2,950 mg/kg (rat)	> 5,000 mg/kg (rat)	•
Calcium Nitrate	> 302 mg/kg (rat)	-	-
Ammonium Nitrate	4,820 mg/kg (rat)	> 3,000 mg/kg (rabbit)	-

Skin corrosion/irritation Causes skin irritation.

Adverse symptoms may include the following: pain or irritation, tearing, Serious eye damage/irritation

redness.

When exposed to high temperatures, they can release dangerous decomposition products, such as carbon monoxide and dioxide, smoke, Respiratory or skin sensitization

nitrogen oxides, etc. Adverse symptoms may include the following:



Ingestión

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headache, irritation of the respiratory tract.

Under normal conditions of storage and use, hazardous decomposition

products should not be produced.

It can cause irritation of the digestive tract with the accompaniment of

nausea, vomiting and diarrhea.

Carcinogenicity

Mutagenic effects

Reproductive toxicity

Specific target toxicity (single exposure)

Specific target toxicity (repeat exposure)

Aspiration hazard

Not classified.

Not classified.

Not classified.

Not classified.

## **SECTION 12. ECOLOGICAL INFORMATION**

## 12.1 Toxicity

Low toxicity to aquatic organisms. Very low acute toxicity to fish.

## 12.2 Persistence and degradability

It is readily biodegradable in plants and soils. As long as the product is used properly, according to instructions, no damage to the environment is generated

## 12.3 Bioaccumulative potential

The product generates no bioaccumulation

## 12.4 Mobility in soil

This product can move with currents of surface water or groundwater because of its solubility in water.

#### 12.5 Other adverse effects

Other information No known ecological damage caused by this product.

#### SECTION 13.- DISPOSAL CONSIDERATIONS

## 13.1. Waste treatment methods

Waste treatment methods Dispose of in accordance with relevant local regulations.

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities

Waste disposal recommendations

mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Precipitate/make insoluble. Remove to an authorized dump (Class I). Do not discharge into surface water.

## **SECTION 14.- TRANSPORT INFORMATION**

**14.1.UN number**Not regulated **14.2. UN proper shipping name**Not regulated

14.3. Additional information

Other information No supplementary information available.

Overland transport No additional information available.



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Transport by sea

No additional information available.

Air transport

No additional information available.

## **SECTION 15.- REGULATORY INFORMATION**

## 15.1 US Federal regulations

This product does not contain chemicals that are subject to the information requirements of Act and Title 40 of the Code of Federal Regulations, Part 372.

## 15.2 International regulations

#### **CANADA**

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification Information not available.

## **EU-Regulations**

No additional information available.

## 15.2.2. National regulations

Information not available.

#### SECTION 16.- OTHER INFORMATION

NFPA NFPA health hazard 2 NFPA fire hazard 0 NFPA instability hazard 1 NFPA Special hazard - HMIS III Health 2 Flammability 0 Physical 1 Personal Protection B

**G** Splash goggles, Gloves, Synthetic apron, Vapor respirator







Made for: Quimica Pima, S.A. de C.V. Del Cobre No. 20 Parque Industrial. Hermosillo, Sonora, México. 83297.

**Date of issue:** December 28, 2011 **Revision date:** September 01, 2023

Revision note: October 17, 2016 4th rev. In this latest revision is updated according to 29 CFR 1910.1200.

July 17, 2018 4.1 rev. Section 2 and section 16 were modified.

September 01, 2023. 5th rev. Syntax and spelling improvements and corrections were made.

IMPORTANT NOTE: Information in this SDS is from available published sources and is believed to be accurate, but is not exhaustive and will be used only as a guide, which is based on current knowledge of the chemical substance or mixture and apply to the appropriate product for safety precautions. No warranty, express or implied, is made and Pima Chemicals & Fertilizers, LLC and Quimica Pima, S.A. de C.V. assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.

End of Safety Data Sheet