

## 1. Identification

Product identifier: Calcium Nitrate 8.5% Solution (CALNITAFI)  
Common Name: Aqueous solution  
Recommended use: Fertilizer/professional applications  
Synonym(s): Calcium Nitrate Liquid  
CN-8.5%  
Calcium Nitrate Ammonia-Free Liquid

Company: Fertilizer Company of Arizona, Inc.  
2850 South Peart Road  
Casa Grande, Arizona 85193-9024  
520-836-7477  
www.fertizona.com

In case of emergency call: 928-783-3803

## 2. Hazards Identification

OSHA/HCS status: This product is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification: Acute Toxicity (oral) – Category 4  
Serious Eye Damage/Irritation – Category 1

Signal Word: Danger

Hazard Statements: Harmful if swallowed. Causes serious eye damage.



Symbol(s):

Precautionary Statements:

Prevention: Wear protective gloves and eye protection. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

## 3. Composition/Information on Ingredients

Substance/Mixture Mixture

Chemical Ingredients:	CAS #:	%
Nitric acid, calcium salt (2:1)	10124-37-5	>=35-<50

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.

Occupational exposure limits, if available, are listed in Section 8.

Remark: Aqueous solution

## 4. First Aid Measures

Work/Hygienic Practices: Keep out of reach of children. Avoid contact with eyes, skin, and clothing. Avoid inhalation of spray mists. Wash thoroughly with water after handling. Do not eat, drink, or smoke while using this product.

If in eyes:	Immediately flush eyes with plenty of water for at least 15 minutes, keeping eyelids open.
	Check for and remove any contact lenses.
	Get medical attention immediately.
If on skin:	Wash with plenty of soap and water.
	Take off contaminated clothing and wash before reuse.
	If skin irritation persists, get medical advice.
If swallowed:	Rinse mouth with water.
	If material has been swallowed and the exposed person is

	conscious, give small quantities of water to drink.
	Get medical attention if you feel unwell.
If inhaled:	Avoid inhalation of vapor, spray or mist.
	Remove to fresh air and keep comfortable for breathing.
	Call poison control if you feel unwell.
Have the product container or label with you when calling a poison control center or doctor or going for treatment.	
For emergencies, call a doctor or poison control center 1-800-222-1222.	

**Potential Acute Effects**

Eyes: Causes serious eye damage.  
 Inhalation: Vapor may be irritating to eyes and respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.  
 Skin: No known significant effects or critical hazards.  
 Ingestion: Harmful if swallowed. May cause burns to mouth, throat and stomach.

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

Notes to Physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments: No specific treatment  
 See toxicological information (section 11)

**5. Fire Fighting Measures**

Flash Point: Non-flammable  
 Extinguishing media: Use an extinguishing agent suitable for the surrounding fire.  
 Unsuitable Extinguishing Media: None identified  
 Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur and the container may burst.  
 Hazardous Thermal Decomposition Products: Avoid breathing dusts, vapors or fumes from burning materials. In case of inhalation of decomposition products in a fire, symptoms may be delayed.  
 Special Protective Actions for Firefighters: 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.  
 Special Protective Equipment for Firefighters: Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**6. Accidental Release Measures**

Personal Precautions, Protective Equipment, and Emergency Procedures

For Non-Emergency Personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator

	when ventilation is inadequate. Put on appropriate personal protective equipment.
For Emergency Responders:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and Material for Containment and Clean Up	
Small Spill:	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large Spill:	Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7. Handling and Storage

### Precautions for Safe Handling Protective Measures:

Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on General Occupational Hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for Safe Storage, Including any Incompatibilities: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink.

Store locked up. Keep 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.

## 8. Exposure Controls and Personal Protection

### Control Parameters

Occupational Exposure Limits: None

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.

Environmental Exposure Controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual Protection Measures

Hygiene Measures:

A washing facility or water for eye and skin cleaning purposes should be present.

Eye/face Protection:

Chemical splash goggles and/or face shield. 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 dusts.

### Skin Protection

Hand Protection:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body Protection:

Personal protective equipment for the body should be selected based on the task being performed and the risks involved.

Other Skin Protection:

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory Protection:

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## 9. Physical and Chemical Properties

Physical state: Liquid

Appearance: Colorless

Odor: No discernible odor.

Odor threshold: N/Av

pH: 5-7

Melting point/Freezing point: -15 to -10°C (5 - 14°F)

Initial boiling point and boiling range: 115°C (239°F)  
 % volatile by Weight: N/Av  
 Flash point: N/Av  
 Evaporation rate: N/Av  
 Flammability: Non-flammable  
 Upper/lower flammability and explosive limits: N/Av  
 Vapor pressure: 17 hPa @ 20°C (68°F)  
 Vapor density (air = 1): < 1.0  
 Density: 12.5181 lbs/gal  
 Specific gravity (water = 1): 1.501  
 Solubility(ies): > 100 g/l. Easily soluble in cold water  
 Partition coefficient (n-octanol/water): N/Av  
 Auto-ignition temperature: N/Av  
 Decomposition temperature: N/Av  
 Viscosity: N/Av

N/Av = Not available  
 N/Av = Not applicable

**10. Stability and Reactivity**

Stability: Stable.  
 Reactivity: No specific test data related to reactivity available for this product or its ingredients.  
 Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.  
 Conditions to Avoid: Avoid contamination by any source including metals, dust and organic materials.  
 Incompatible materials: Alkalis, combustible materials, reducing materials, organic materials, and acids.  
 Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**11. Toxicological Information**

Acute Toxicity

Product/Ingredient Name	Result	Species	Dose	Exposure	References
Nitric acid, calcium salt (2:1)					
	LD50 Oral	Rat – Female	500 mg/kg 423 Acute Oral toxicity - Acute Toxic Class Method	-	IUCLID 5

Conclusion/Summary: Harmful if swallowed

Irritation/Corrosion

Product/Ingredient Name	Result	Species	Score	Exposure	Observation	References
Nitric acid, calcium salt (2:1)						
	Eyes – Severe irritant OECD 405	Rabbit		24 – 72 h	-	

Conclusion/Summary

Skin: Non-irritating to the skin.  
 Eyes: Causes serious eye damage.

Respiratory: May be irritating to the respiratory system.

Sensitization

Conclusion/Summary

Skin: Not sensitizing  
Respiratory: Not sensitizing

Mutagenicity

Conclusion/Summary: No mutagenic effect.

Carcinogenicity Classification

Product/Ingredient Name	OSHA	IARC	NTP
Nitric acid, calcium salt (2:1)		2A	

Conclusion/Summary: There is inadequate evidence in humans and in animals for the carcinogenicity of nitrate in food. Nitrate can be reduced to form nitrite and under acidic gastric conditions nitrite may react to generate N-nitroso compounds (endogenous nitrosation). Under conditions that result in endogenous nitrosation ingested nitrate is classified IARC Group 2A. The product is not to be ingested.

Reproductive Toxicity

Product/Ingredient Name	Maternal Toxicity	Fertility	Development Toxin	Species	Dose	Exposure	References
Nitric acid, calcium salt (2:1)	-	Negative	Negative	Rate	Oral: > 1500 mg/kg bw/day Repeated dose OECD 422	-	IUCLID 5

Conclusion/Summary: Not considered to be toxic to the reproductive system.

Teratogenicity

Conclusion/Summary: No known significant effects or critical hazards.

Specific Target Organ Toxicity

Single Exposure: No known significant effects or critical hazards.  
Repeated Exposure: No known significant effects or critical hazards.

Aspiration Hazard: No known significant effects or critical hazards.  
Information on the likely routes of exposure: Not available

Potential Acute Health Hazards

Eye Contact: Causes serious eye damage.  
Inhalation: Vapor may be irritating to eyes and respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin Contact: No known significant effects or critical hazards.  
 Ingestion: Harmful if swallowed. May cause burns to mouth, throat and stomach.

Symptoms related to the physical, chemical, and toxicological characteristics

Eye Contact: Adverse symptoms may include pain, watering, and/or redness.  
 Inhalation: No specific data  
 Skin Contact: No specific data  
 Ingestion: Adverse symptoms may include stomach pains. May cause burns to mouth, throat and stomach.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short Term Exposure  
 Potential Immediate Effects: Not available  
 Potential Delayed Effects: Not available

Long Term Exposure  
 Potential Immediate Effects: Not available  
 Potential Delayed Effects: Not available

Potential Chronic Health Effects

Product/Ingredient Name	Result	Species	Dose	Exposure	References
Nitric acid, calcium salt (2:1)					
	NOAEL Oral	Rat	>1000 mg/kg OECD 407	28 d	IUCLID 5

Conclusion/Summary: Not toxic

General: No known significant effects or critical hazards.  
 Carcinogenicity: No known significant effects or critical hazards.  
 Mutagenicity: No known significant effects or critical hazards.  
 Teratogenicity: No known significant effects or critical hazards.  
 Developmental effects: No known significant effects or critical hazards.  
 Fertility effects: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include pain, watering, and/or redness  
 Inhalation: No specific data  
 Skin contact: No specific data  
 Ingestion: Adverse symptoms may include stomach pains. May cause burns to mouth, throat and stomach

Numerical measures of toxicity

Acute Toxicity Estimates: Not available

## 12. Ecological Information

### Toxicity

Product/Ingredient Name	Result	Species	Exposure	References
Nitric acid, calcium salt (2:1)				
	Acute LC50 1,378 mg/l Fresh water OECD 203	Fish – Labeo boga	96 h	IUCLID 5
	Acute LC50 2,400 mg/l Fresh water	Fish – Lepomis macrochirus	4 d	Proc. Acad. Nat. Sci. Philadelphia 106: 185-205
	Acute LC50 490 mg/l Fresh water	Aquatic invertebrates – Daphnia	48 h	IUCLID 5
	Acute EC50 > 1,700 mg/l Salt water	Aquatic plants – Heterosigma akishiwo	10 d	IUCLID 5

Conclusion/Summary: No known significant effects or critical hazards

Persistence/Degradability  
 Conclusion/Summary: Readily biodegradable in plants and soils

Bioaccumulative Potential  
 Conclusion/Summary: Bioaccumulation: Not reported

Mobility in Soil  
 Soil/water partition coefficient (KOC): Not available  
 Mobility: This product may move with surface or groundwater flows because its water solubility is high

Other Adverse Effects: No known significant effects or critical hazards.

## 13. Disposal Consideration

Do not contaminate water, food or feed by storage or disposal.

Methods of Disposal: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States – RCRA Acute Hazardous Waste “P” List: Not listed  
 United State – RCRA Toxic Hazardous Waste “U” List: Not listed



#### 14. Transportation Information

D.O.T. Shipping Description: Not D.O.T. Regulated

Other Shipping Information: Fertilizing Compounds (Manufactured), Liquid. NMFC Item 68140 Sub 6, LTL Class 70

#### 15. Regulatory Information

United States - TSCA 12(b) - Chemical export notification: None of the components are listed.

SARA 302/304: Not applicable

SARA 304 RQ: Not applicable

SARA 311/312 Classification: Immediate (acute) health hazard

California Proposition 65: This product contains a chemical (or chemicals) known to the State of California to cause cancer and birth defects or other reproductive harm.

#### 16. Other Information

Hazardous Material Information System

Health – 2      Flammability – 0      Physical Hazards – 0

NFPA Ratings

Health – 2      Flammability – 0      Instability/Reactivity – 0      Special - None

*Fertilizer Company of Arizona, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. While the information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or information set forth, or that the products, or information may be used without infringing the intellectual property rights of others. In no case shall the information provided be considered a part of our terms and conditions of sale. Further, you expressly understand and agree that the information furnished by our company hereunder are given gratis and we assume no obligation or liability for the information given or results obtained, all such being given and accepted at your risk.*

SDS Preparation Date: 10/17/2016

Revision Date: ----

Revision Reason: ----

This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).