



**VOLUNTARY PURCHASING GROUPS, INC.**

## Safety Data Sheet Hi-Yield Ammonium Calcium Nitrate

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### SECTION 1: Identification

#### GHS Product identifier

Product name	Hi-Yield Ammonium Calcium Nitrate
Product number	32128; 32128Q
Brand	Hi-Yield

#### Other means of identification

NPK 15.5-0-0

#### Recommended use of the chemical and restrictions on use

Fertilizer

#### Supplier's details

Name	Voluntary Purchasing Groups, Inc.
Address	230 FM 87 Bonham TX 75418 USA

Telephone	855-270-4776
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#### Emergency phone number

In the event of a medical or chemical emergency contact ChemTel, Inc.  
North American 1-800-255-3924 or worldwide Intl. + 01-813-248-0585

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### SECTION 2: Hazard identification

#### Classification of the substance or mixture

#### GHS classification in accordance with: OSHA (29 CFR 1910.1200, 2012)

- Acute toxicity, oral, Cat. 4
- Eye damage/irritation, Cat. 1

#### GHS label elements, including precautionary statements

#### Pictograms



#### Hazard statement(s)

H302	Harmful if swallowed
H318	Causes serious eye damage

# Safety Data Sheet

## Hi-Yield Ammonium Calcium Nitrate

### Precautionary statement(s)

P264	Wash ... thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P301+P312	IF SWALLOWED: Call a POISON CENTER /doctor/...if you feel unwell,
P330	Rinse mouth.
P501	Dispose of contents/container to ...
P280	Wear eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/...
P102	Keep out of reach of children.
P103	Read label before use.

### Other hazards which do not result in classification

Product forms slippery surface when combined with water.

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## SECTION 3: Composition/information on ingredients

### Mixtures

#### Hazardous components

Component	Concentration
<b>Nitric acid, ammonium calcium salt (1:?:?) (CAS no.: 15245-12-2)</b>	<b>80 - 90 %</b>
CLASSIFICATIONS: No data available. HAZARDS: No data available.	
<b>Calcium nitrate tetrahydrate (CAS no.: 10124-37-5)</b>	<b>10 - 15 %</b>
CLASSIFICATIONS: No data available. HAZARDS: No data available.	

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## SECTION 4: First-aid measures

### Description of necessary first-aid measures

General advice	Call a poison control center or doctor for treatment advice. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment. Never give fluids or induce vomiting if a patient is unconscious or convulsing regardless of cause of injury. If breathing difficulties occur, seek medical attention immediately.
If inhaled	Move person to fresh air. If person is not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a poison control center or doctor for treatment advice.
In case of skin contact	Wash skin with soap and plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
In case of eye contact	Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.

# Safety Data Sheet

## Hi-Yield Ammonium Calcium Nitrate

Call a poison control center or doctor for treatment advice.

If swallowed

Do not induce vomiting.  
Never give anything by mouth to an unconscious person.  
Call a poison control center or doctor for treatment advice.

Personal protective equipment for first-aid responders

Respiratory Protection: NIOSH/MSHA approved for protection against toxic dusts.  
Ventilation: General or local exhaust to maintain employee exposure below the TLV/PEL.  
Protective Gloves: PVC or Neoprene.  
Eye Protection: Safety glasses or goggles (ANSI Z87.1 1979)  
Other Protective Clothing or Equipment: Apron, boots, long sleeved shirt and full-length pants may be worn when necessary to prevent skin contact.  
Eye wash and shower facilities should be available.

### Most important symptoms/effects, acute and delayed

Causes serious eye damage. May give off gas, vapor or dust that is very irritation or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. 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: No specific antidote, contact Poisons Information Center. All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

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## SECTION 5: Fire-fighting measures

### Suitable extinguishing media

Water spray (fog), foam or dry chemical

### Specific hazards arising from the chemical

Non-combustible.

Hazardous thermal decomposition products: Nitrogen oxides, metal oxide/oxides.

### Special protective actions for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Move containers from fire area if possible to do so without risk.

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## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Wear protective clothing. Safety glasses. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Ventilate area of spill. Avoid dust formation. Avoid breathing dust.

### Environmental precautions

Avoid contact of spilt material and runoff with soil and surface waterways.

### Methods and materials for containment and cleaning up

Use a tool to scoop up solid material and place into an appropriate labeled waste container.  
Do not mix with sawdust or other combustible material. Avoid creating dusty conditions and prevent wind dispersal.  
Keep out of waterways.

# Safety Data Sheet

## Hi-Yield Ammonium Calcium Nitrate

### Reference to other sections

See Sections 1 for emergency contact information

See Section 8 for information on an appropriate personal protective equipment

See Section 13 for additional waste treatment information

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## SECTION 7: Handling and storage

### Precautions for safe handling

Avoid creating dusty conditions and prevent wind dispersal. Avoid all possible sources of ignition (spark or flame). Avoid contamination by any source including metals, dust and organic materials. Avoid contact with skin and eyes. Wash thoroughly after handling.

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 measures.

### Conditions for safe storage, including any incompatibilities

Store and use away from heat, sparks, open flame or any other ignition source. Avoid contact with combustible materials and reducing agents. Keep away from acids or bases. Prevent moisture pickup in handling and storage.

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## SECTION 8: Exposure controls/personal protection

### Appropriate engineering controls

Use process enclosures, local exhaust ventilation, or others engineering controls to keep airborne levels below recommend exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Keep away from foodstuffs and beverages. Do not eat, drink or smoke during work time.

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

#### Eye/face protection

Wear protective safety glasses

#### Skin protection

Wear protective disposable vinyl gloves to prevent skin exposure

#### Body protection

Wear appropriate long-sleeved clothing to minimize skin contact. Remove soiled or soaked clothing immediately. Clean skin thoroughly after work; apply skin cream.

#### Respiratory protection

Disposable particulate mask. Be sure to use an approved/certified or equivalent equipment. Wear appropriate respirator when ventilation is inadequate.

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## SECTION 9: Physical and chemical properties

Appearance (physical state, color, etc.)	White solid granule
Odor	None
Odor threshold	None
pH	5-7
Melting point/freezing point	>400°C*
Initial boiling point and boiling range	no melting up to 300°C*
Flash point	Not determined.
Evaporation rate	Not determined.
Flammability (solid, gas)	Not flammable
Upper/lower flammability or explosive limits	Not determined.

# Safety Data Sheet

## Hi-Yield Ammonium Calcium Nitrate

Vapor pressure	Not determined.
Vapor density	Not determined.
Relative density	2.05
Solubility(ies)	100 g/l at 20°C
Partition coefficient: n-octanol/water	Not determined.
Auto-ignition temperature	Will not auto-ignite between room temperature and melting temperature
Decomposition temperature	Not determined.
Viscosity	Not determined.
<b>Additional properties</b>	
Physical state	Solid
Color	White

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### SECTION 10: Stability and reactivity

#### Reactivity

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

#### Chemical stability

Stable under normal handling and storage conditions described in Section 7.

#### Possibility of hazardous reactions

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

#### Conditions to avoid

Extreme humidity, excess heat.

#### Incompatible materials

Combustible materials, acids, alkalis, reducing materials, organic materials.

#### Hazardous decomposition products

In the event of fire: see section 5.

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### SECTION 11: Toxicological information

#### Information on toxicological effects

##### Acute toxicity

Nitric acid, ammonium LD50, Dermal Rat >2000 mg/kg calcium salt LD50, Oral Rat (female) > 300 and < 2000 mQ/kg

##### Skin corrosion/irritation

Adverse symptoms may include the following: pain or irritation, redness, blistering may occur.

##### Serious eye damage/irritation

Adverse symptoms may include the following: pain, watering, redness

##### Respiratory or skin sensitization

No information available.

##### Germ cell mutagenicity

Not mutagenic.

##### Carcinogenicity

No carcinogenicity study needs to be proposed as nitric acid, ammonium calcium salt is not genotoxic.

# Safety Data Sheet

## Hi-Yield Ammonium Calcium Nitrate

### Reproductive toxicity

No data available.

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

No known significant effects or critical hazards.

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

No known significant effects or critical hazards.

### Aspiration hazard

No known significant effects or critical hazards.

### Additional information

Nitric acid, calcium and ammonium double salt, hydrated form:

Absorption: Rapidly absorbed

Distribution: Enters the systemic circulation without passing through liver tissues

Metabolism: Rapidly metabolized. Metabolised to the following: Ca<sup>2+</sup>, NH<sub>4</sub><sup>+</sup>, NO<sub>3</sub><sup>-</sup>

Elimination: The chemical and its metabolites are fully excreted and do not accumulate within the body.

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## SECTION 12: Ecological information

### Toxicity

Nitric acid, ammonium calcium salt

Acute LC50 447 mg/l Fresh water Fish - *Labeo boga* 48 h IUCLID 5

Acute EC50 > 100 mg/l Fresh water OECD 202 Aquatic invertebrates. - *Daphnia* 48 h IUCLID 5

Acute LC50 > 100 mg/l Fresh water OECD 201 Aquatic plants - *Heterosigma akashiwo* 72 h IUCLID 5

Acute EC50 > 1,000 mg/l Activated sludge OECD 209 Microorganism 3 h IUCLID 5

### Persistence and degradability

Not applicable, since inorganic substance.

### Bioaccumulative potential

The product does not show any bioaccumulation phenomena. The product is not expected to harm the environment when used properly according to directions.

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : <1

This product may move with surface or groundwater flows because its water solubility is: > 100 g/L

### Other adverse effects

Substances which have an unfavorable influence on the oxygen balance and can be measured using parameters such as BOD, COD, etc.: Absent

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## SECTION 13: Disposal considerations

### Disposal methods

#### Product disposal

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

# Safety Data Sheet

## Hi-Yield Ammonium Calcium Nitrate

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### SECTION 14: Transport information

**DOT (US)**

Not regulated

**IMDG**

Not regulated

**IATA**

Not regulated

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### SECTION 15: Regulatory information

**Safety, health and environmental regulations specific for the product in question****US EPA TSCA public inventory**

Chemical name: Nitric acid, ammonium calcium salt (1:?:?)

CAS number: 15245-12-2

**Water hazard class (WGK, Germany)**

Chemical name: Nitric acid, ammonium calcium salt (1:?:?), cas number: 15245-12-2

WGK hazard class: WGK 1 - Slightly hazardous to water

**New Jersey Right To Know Components**

Common name: Calcium nitrate

CAS number: 10124-37-5

Listing note: R1-reactive 1st deg.

**US EPA TSCA public inventory**

Chemical name: Nitric acid, calcium salt (2:1)

CAS number: 10124-37-5

**Water hazard class (WGK, Germany)**

Chemical name: Calcium nitrate tetrahydrate, cas number: 10124-37-5

WGK hazard class: WGK 1 - Slightly hazardous to water

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### SECTION 16: Other information

**Further information/disclaimer**

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