

**Calcium Ammonium Nitrate Beads 18.5%
Calcium, 15.5-0-0 NPK**

Version number: 2.0

SECTION 1: Identification

1.1 Product identifier

Identification of the substance	nitric acid, ammonium calcium salt
Trade name	<u>Calcium Ammonium Nitrate Beads 18.5% Calcium, 15.5-0-0 NPK</u>
CAS number	15245-12-2

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

Relevant identified uses	Chemicals for various applications Production of fertilizer
--------------------------	--

1.3 Details of the supplier of the safety data sheet

Valudor Products, LLC 179 Calle Magdalena Suite 100 Encinitas, California CA 92024 United States	Telephone: +1 (760) 635 8500 e-mail: info@valudor.com Website: www.valudor.com
---	--

1.4 Emergency telephone number

Emergency information	800-535-5053 (Infotrac)
As above or nearest toxicological information center.	

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Classification				
Section	Hazard class	Category	Hazard class and category	Hazard statement
A.10	acute toxicity (oral)	4	Acute Tox. 4	H302
A.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318

For full text of abbreviations: see SECTION 16

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Signal word	danger
-------------	--------

Calcium Ammonium Nitrate Beads 18.5%

Calcium, 15.5-0-0 NPK

Version number: 2.0

Pictograms

GHS05, GHS07



Hazard statements

H302 Harmful if swallowed.
H318 Causes serious eye damage.

Precautionary statements

P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338+P310 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.
P330 Rinse mouth.
P501 Dispose of contents/container to an authorized waste treatment facility.

2.3 Other hazards

Product forms slippery surface when combined with water.

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Name of substance	nitric acid, ammonium calcium salt
Identifiers	
CAS No	15245-12-2
Purity	98 - 100 %

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Provide fresh air.

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.

Following skin contact

Take off contaminated clothing.

Calcium Ammonium Nitrate Beads 18.5%

Calcium, 15.5-0-0 NPK

Version number: 2.0

Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

Following eye contact

Rinse immediately carefully and thoroughly with eye shower or water.

Remove contact lenses, if present and easy to do. Continue rinsing.

Get immediate medical advice/attention.

Following ingestion

Rinse mouth immediately and drink plenty of water.

Do NOT induce vomiting.

Get medical advice/attention.

Notes for the doctor

None.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye damage.

Harmful if swallowed.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

coordinate firefighting measures to the fire surroundings

Unsuitable extinguishing media

none

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.

Hazardous combustion products

ammonia (NH₃), nitrogen oxides (NO_x), calcium oxide

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.

Coordinate firefighting measures to the fire surroundings.

Do not allow firefighting water to enter drains or water courses.

Collect contaminated firefighting water separately.

Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

chemical protective clothing, self-contained breathing apparatus (SCBA)

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Calcium Ammonium Nitrate Beads 18.5%

Calcium, 15.5-0-0 NPK

Version number: 2.0

For non-emergency personnel

Remove persons to safety.

Ventilate affected area.

Do not get in eyes, on skin, or on clothing.

Control of dust.

Avoid breathing dust.

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Knock down dust with water spray.

Keep away from drains, surface and ground water.

Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains.

Take up mechanically.

Advice on how to clean up a spill

Collect spillage.

Other information relating to spills and releases

Place in appropriate containers for disposal.

Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5.

Personal protective equipment: see section 8.

Incompatible materials: see section 10.

Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Do not get in eyes, on skin, or on clothing.

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.

Prevent from heating up above 50 °C.

Removal of dust deposits.

Handling of incompatible substances or mixtures

Do not mix with reducing agents.

Measures to protect the environment

Avoid release to the environment.

Calcium Ammonium Nitrate Beads 18.5%

Calcium, 15.5-0-0 NPK

Version number: 2.0

Do not empty into drains; dispose of this material and its container at hazardous or special waste collection point.

Advice on general occupational hygiene

Do not eat, drink and smoke in work areas.

Remove contaminated clothing and protective equipment before entering eating areas.

Do not breathe dust.

Do not get in eyes, on skin, or on clothing.

Wash hands after use.

Preventive skin protection (barrier creams/ointments) is recommended.

7.2 Conditions for safe storage, including any incompatibilities

Flammability hazards

None.

Incompatible substances or mixtures

Incompatible materials: see section 10.

Observe compatible storage of chemicals.

Keep away from Fetten, Ölen, Organic substances.

Protect against external exposure, such as

heat, direct light irradiation, humidity

Consideration of other advice

Keep away from food, drink and animal feedingstuffs.

Ventilation requirements

Provision of sufficient ventilation.

Specific designs for storage rooms or vessels

Hygroscopic solid.

Store in a dry place. Store in a closed container.

Keep cool.

Store away from reducing agents.

Packaging compatibilities

Keep only in original container.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

No constituent of the product currently has a known exposure limit.

8.2 Exposure controls

Appropriate engineering controls

Use local and general ventilation.

Calcium Ammonium Nitrate Beads 18.5%

Calcium, 15.5-0-0 NPK

Version number: 2.0

Individual protection measures (personal protective equipment)

Wear suitable protective clothing.

Eye/face protection

Wear eye/face protection.

Hand protection

Protective gloves		
Material	Material thickness	Breakthrough times of the glove material
CR: chloroprene (chlorobutadiene) rubber	≥ 0,5 mm	>120 minutes (permeation: level 4)
NBR: acrylonitrile-butadiene rubber	≥ 0,4 mm	>120 minutes (permeation: level 4)
PVC: polyvinyl chloride	≥ 0,5 mm	>120 minutes (permeation: level 4)

Wear suitable gloves.

Chemical protection gloves are suitable, which are tested according to EN 374.

Check leak-tightness/impermeability prior to use.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Body protection

Protective clothing for use against solid particulates.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

P2 (filters at least 94 % of airborne particles, color code: White).

Environmental exposure controls

Use appropriate container to avoid environmental contamination.

Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state solid

Color white

Particle characteristics

Granulometry < >2,000 µm = 50 %

Odor odorless

Odor threshold not applicable

Other safety parameters

Calcium Ammonium Nitrate Beads 18.5%

Calcium, 15.5-0-0 NPK

Version number: 2.0

pH (value)	5 – 7 (in aqueous solution: 110 g/l)
Melting point/freezing point	>400 °C (ECHA, OECD Guideline 102) no melting point was observed
Boiling point or initial boiling point and boiling range	not determined
Flash point	not applicable
Evaporation rate	not determined
Flammability (solid, gas)	non-combustible
Explosive limits	not determined
Explosion limits of dust clouds	not determined
Vapor pressure	0 Pa at 20 °C
Density and/or relative density	
Density	2.05 g/cm ³ at 20 °C (OECD Guideline 109, ECHA)
Relative density	2.05 at 20 °C (water = 1)
Relative vapour density	not relevant (solid)
Solubility(ies)	
Water solubility	>100 g/l
Partition coefficient	
n-octanol/water (log KOW)	not relevant (inorganic)
Soil organic carbon/water (log KOC)	~0.1 (ECHA Chem, CSA key value)
Auto-ignition temperature	>400 °C (ECHA, EU method A.16)
Decomposition temperature	not relevant
Viscosity	not relevant (solid)
Explosive properties	none
Oxidizing properties	none
Information for relevant hazard classes according to GHS	hazard classes acc. to GHS (physical hazards): not relevant
9.2 Other information	there is no additional information

Calcium Ammonium Nitrate Beads 18.5%

Calcium, 15.5-0-0 NPK

Version number: 2.0

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Prevent from heating up above 50 °C.

Protect from moisture.

10.5 Incompatible materials

combustible materials, caustic solutions, organic materials, reducing agents, acids, dust, metals

10.6 Hazardous decomposition products

Nitrogen oxides (NO_x).

Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

If not otherwise specified the classification is based on:

Animal studies; Evidence from any other toxicity tests; Expert judgment (weight of evidence determination).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic (dermal).

Harmful if swallowed.

Inhalation.

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Exposure route	Endpoint	Value	Species	Method	Source
oral	LD50	>300 – <2,000 mg/kg	rat, female	OECD Guideline 423	ECHA
dermal	LD50	>2,000 mg/kg	rat	OECD Guideline 402	ECHA

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Calcium Ammonium Nitrate Beads 18.5%

Calcium, 15.5-0-0 NPK

Version number: 2.0

(ECHA, OECD Guideline 404)

Serious eye damage/eye irritation

Causes serious eye damage.

(ECHA, OECD Guideline 405, OECD Guideline 437)

Respiratory or skin sensitization

Skin sensitization

Shall not be classified as a skin sensitizer.

(ECHA, OECD Guideline 429)

Respiratory sensitization

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

(ECHA, OECD Guideline 471, OECD Guideline 473, OECD Guideline 476)

Carcinogenicity

IARC Monographs

not listed

National Toxicology Program (United States)

not listed

OSHA Carcinogens

Not listed.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

(ECHA, OECD Guideline 422)

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Exposure route	Endpoint	Value	Exposure time	Species	Method
oral	NOAEL	$\geq 1,000 \text{ mg/kg bw/day}$	28 d	rat	OECD Guideline 407
oral	NOEC	$\geq 1,500 \text{ mg/kg bw/day}$	28 d	rat	OECD Guideline 422

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Other information

There is no additional information.

Calcium Ammonium Nitrate Beads 18.5% Calcium, 15.5-0-0 NPK

Version number: 2.0

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)

Based on available data, the classification criteria are not met.

Endpoint	Exposure time	Value	Species	Method	Source
LC50	48 h	340 mg/l	Portunus pelagicus	-	ECHA Chem
LC50	96 h	10,359 mg/l	Hexagramus otakii	-	ECHA Chem

Aquatic toxicity (chronic)

Based on available data, the classification criteria are not met.

Endpoint	Exposure time	Value	Species	Method	Source
EC50	7 d	447.7 mg/l	fathead minnow (Pimephales promelas)	-	ECHA Chem
EC50	7 d	125.8 mg/l	water flea (Daphnia)	-	ECHA Chem
LC50	7 d	518.1 mg/l	fathead minnow (Pimephales promelas)	-	ECHA Chem
LC50	10 d	504.9 mg/l	Hyaella azteca	-	ECHA Chem
NOEC	30 d	257 mg/l	fathead minnow (Pimephales promelas)	-	ECHA Chem
NOEC	7 d	68.9 mg/l	water flea (Daphnia)	-	ECHA Chem
LOEC	30 d	536 mg/l	fathead minnow (Pimephales promelas)	-	ECHA Chem
LOEC	7 d	137.6 mg/l	water flea (Daphnia)	-	ECHA Chem

12.2 Persistence and degradability

Biodegradation

The study does not need to be conducted because the substance is inorganic.

Persistence

The study does not need to be conducted because the substance is inorganic.

12.3 Bioaccumulative potential

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Calcium Ammonium Nitrate Beads 18.5%

Calcium, 15.5-0-0 NPK

Version number: 2.0

n-octanol/water (log KOW)

not relevant
(inorganic)

12.4 Mobility in soil

The substance is very mobile.

The Organic Carbon normalised adsorption coefficient

~0.1
(ECHA Chem)

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

12.6 Other adverse effects

Data are not available.

Remarks

None.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packages

Completely emptied packages can be recycled.

Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1 UN number

not subject to transport regulations

14.2 UN proper shipping name

-

14.3 Transport hazard class(es)

-

14.4 Packing group

-

14.5 Environmental hazards

-

14.6 Special precautions for user

-

14.7 Transport in bulk according to IMO instruments

-

14.8 Information for each of the UN Model Regulations

Calcium Ammonium Nitrate Beads 18.5%

Calcium, 15.5-0-0 NPK

Version number: 2.0

Transport of dangerous goods by road or rail (49 CFR US DOT) Additional information

Not subject to transport regulations.

SECTION 15: Regulatory information

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

National regulations (United States)

Toxic Substance Control Act (TSCA)

Substance is listed (ACTIVE)

Superfund Amendment and Reauthorization Act (SARA TITLE III)

The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

Not listed

Specific Toxic Chemical Listings (EPCRA Section 313)

Not listed

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Not listed

Clean Air Act

Not listed

Right to Know Hazardous Substance List

Toxic or Hazardous Substance List (MA-TURA)

Not listed

Hazardous Substances List (MN-ERTK)

Not listed

Hazardous Substance List (NJ-RTK)

Not listed

Hazardous Substance List (Chapter 323) (PA-RTK)

Not listed

Hazardous Substance List (RI-RTK)

Not listed

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Not listed

Drug precursors, Chemicals designated within the Controlled Substances Act, 21 U.S.C. § 802, paragraphs 34 (list I) and 35 (list II)

Not listed

Calcium Ammonium Nitrate Beads 18.5%

Calcium, 15.5-0-0 NPK

Version number: 2.0

SECTION 16: Other information, including date of preparation or last revision

Date of preparation: 2021-08-31

Date of last revision: 2025-07-10.

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IARC	International Agency for Research on Cancer
IARC Mono-graphs	IARC Monographs on the Evaluation of Carcinogenic Risks to Humans
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
IMDG	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LOEC	Lowest Observed Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200 (May 20, 2024 eff. July 19, 2024).

Transport of dangerous goods by road or rail (49 CFR US DOT).

International Maritime Dangerous Goods Code (IMDG).

Dangerous Goods Regulations (DGR) for the air transport (IATA).

Calcium Ammonium Nitrate Beads 18.5%

Calcium, 15.5-0-0 NPK

Version number: 2.0

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H302	Harmful if swallowed.
H318	Causes serious eye damage.

Responsible for the safety data sheet

Chemical Regulatory Compliance Com- Telephone: +1 (630) 410-1660
pany e-Mail: GHS@crc-us.com
Jasper, GA Website: www.crc-us.com
USA

Disclaimer

This information is based upon the present state of our knowledge.
This SDS has been compiled and is solely intended for this product.