

SAFETY DATA SHEET

Section 1: IDENTIFICATION

Product Identifier: Nitric acid, Ammonium calcium salt
Trade Name: Calcium Ammonium Nitrate Beads 18.5% Calcium, 15.5-0-0 NPK
CAS Number: 15245-12-2
Relevant Identified Uses: Drilling Fluid Additive
Supplier: Bri-Chem Supply Ltd.
27075 Acheson Road
Acheson, AB T7X 6B1
Phone Number: 780-962-9490
Emergency Phone: CHEMTREC 1-800-424-9300, 24/7

Section 2: HAZARD(S) IDENTIFICATION

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

Label Elements

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

Signal Word: Danger

Pictograms

GHS05, GHS07



Hazard Statement

H302 Harmful if swallowed
H318 Causes serious eye damage

Precautionary Statements

P270 Do not eat, drink or smoke when using this product.
P280 Wear eye protection/face protection
P350+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

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P330	Rinse mouth
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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

Substances

Name of Substance:	Nitric Acid, Ammonium calcium salt
Identifiers:	
CAS No	15245-12-2
Purity	98 – 100%

Section 4: FIRST-AID MEASURES

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. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
Following Eye Contact:	Rinse mouth. Get medical attention is symptoms occur.
Following Ingestion:	Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Get medical advice/attention.
Notes for the Doctor:	None
Most Important Symptoms and Effects, both Acute and Delayed:	Causes serious eye damage. Harmful if swallowed.
Indication of any Immediate Medical Attention and Special Treatment Needed:	None

Section 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media:	Coordinate firefighting measures to the fire surroundings.
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Unsuitable Extinguishing Media:	None
Specific hazards arising from the substance or mixture:	Hazardous decomposition products: Section 10
Hazardous Combustion Products:	Ammonia (NH ₃), nitrogen oxides (NO _x), calcium oxide.
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

Personal Precautions, Protective Equipment and Emergency Procedures

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.
Environmental Precautions:	Knock down dust with water spray. Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

Methods and Material for Containment and Cleaning Up

Advice on How to Contain a Spill:	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.
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

Precautions for Safe Handling

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.
Specific Notes/Details:	Dust deposits may accumulate on all deposition surfaces in a technical room
Handling of Incompatible Substances or Mixtures:	Do not mix with reducing agents
Measures to Protect the Environment:	Avoid release to the environment
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.

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 irradiation, humidity
Consideration of Other Advice:	Keep away from food, drink and animal feed.
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
Specific End Use(s):	No information available

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

Environmental Values

Relevant PNECs and Other Threshold Levels

Endpoint	Theshold Level	Environmental Compartment
PNEC	18 mg/l	Sewage Treatment Plant (STP)

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Exposure Controls

Appropriate Engineering Controls: General ventilation

Individual Protection Measures (Personal Protective Equipment): Wear suitable protective clothing

Eye/Face Protection: Wear eye/face protection

Hand Protection: Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. 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.

Respiratory Protection: In case of inadequate ventilation wear respiratory protection. Particulate filter device (EN 143). 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

Information on Basic Physical and Chemical Properties

Physical State: Solid

Form: White

Color: Odorless

Odour: Not applicable

Odour Threshold: Not applicable

pH (Value): 5 – 7 (In aqueous solution: 110 g/l)

Melting Point/Freezing Point: >400 °C (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

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Vapor Pressure:	Not determined
Density:	2.05 g/cm ³ at 20 °C (OECD Guideline 109)
Vapor Density:	This information is not available.
Relative Density:	2.05 at 20 °C (water = 1) (OECD Guideline 109)
Solubility(ies)	
Water Solubility:	>100 g/l
Partition Coefficient	
n-octanol/water (log KOW):	Not relevant (inorganic)
Auto-Ignition Temperature:	>400 °C (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
Other Information:	There is no additional information

Section 10: STABILITY AND REACTIVITY

Reactivity:	No information available
Chemical Stability:	The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Possibility of Hazardous Reactions:	No known hazardous reactions
Conditions to Avoid:	Prevent from heating up above 50 °C. Protect from moisture.
Incompatible Materials:	Combustible materials, caustic solutions, organic materials, reducing agents, acids, dust, metals
Hazardous Decomposition Products:	Nitrogen oxides (NO _x). Hazardous combustion products: see Section 5.

Section 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

If not otherwise specified the classification is based on: Animal studies; Evidence from any other toxicity tests; Expert judgement (weight of evidence determination).

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

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Acute Toxicity

Shall not be classified as acutely toxic (dermal). Harmful if swallowed.

Exposure Route	Endpoint	Value	Species	Method
Oral	LD50	>300 – <2,000 mg/kg	rat, female	OECD Guideline 423
Dermal	LD50	>2,000 mg/kg	rat	OECD Guideline 402

Skin Corrosion/Irritation: Shall not be classified as corrosive/irritant to skin. (OECD Guideline 404)

Serious Eye Damage/Eye Irritation: Causes serious eye damage. (OECD Guideline 405, OECD Guideline 437)

Respiratory or Skin Sensitization

Skin Sensitization: Shall not be classified as a skin sensitizer. (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. (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. (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	≥1,000 mg/kg bw/day	28d	Rat	OECD Guideline 407
Oral	NOEC	≥1,500 mg/kg bw/day	28d	Rat	OECD Guideline 422

Aspiration Hazard: Shall not be classified as presenting an aspiration hazard

Other Information: There is no additional information

Section 12: ECOLOGICAL INFORMATION

Toxicity

Aquatic Toxicity (Acute)

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

Endpoint	Exposure Time	Value	Species	Method
LC50	48 h	447 mg/l	Carp (cyprinus carpio)	-
EC50	48 h	>100 mg/l	Daphnia magna	OECD Guideline 202
ErC50	72 h	>100 mg/l	Algae (pseudokirchneriella subcapitata)	OECD Guideline 201

Acute Toxicity (Chronic): No data available

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

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

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

Other Adverse Effects: This information is not available

Remarks: Wassergefährdungsklasse, WGK (water hazard class): 1

Section 13: DISPOSAL CONSIDERATIONS

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

UN Number: Not assigned

UN Proper Shipping Name: -

Transport Hazard Class(es): -

Packing Group: -

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Environmental Hazards: -

Special Precautions for User: -

Transport in Bulk According to Annex II of MARPOL and the IBC Code: -

Information for Each of the UN Model Regulations

Transport of Dangerous Goods by Road or Rail (49 CFR US DOT) Additional Information: Not subject to transport regulations

Section 15: REGULATORY INFORMATION

Safety, Health and Environmental Regulations Specific for the Product in Question

National Regulations (United States)

Toxic Substance Control Act (TSCA): Substance is listed

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

Hazardous Substance List (NJ-RTK): Not listed

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987 Not listed

Industry or Sector Specific Available Guidance(s)

NPCA-HMIS® III

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Hazardous Materials Identification System

American Coatings Association

Category	Degree of Hazard	Description
Chronic Health	/ 3	None Major injury likely unless prompt action is taken, and medical treatment is given.
Flammability	0	Material that will not burn under typical fire conditions
Physical Hazard	0	Material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal Protection	-	-

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of Hazard	Description
Flammability	0	Material that will not burn under typical fire conditions
Health	3	Material that, under emergency conditions, can cause serious or permanent injury
Instability	0	Material that is normally stable, even under fire conditions
Special Hazard	-	-
Chemical Safety Assessment:	For this substance a chemical safety assessment has been carried out	

Section 16: OTHER INFORMATION

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

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ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50% reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IARC Monographs	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
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
vPvB	Very Persistent and very Bioaccumulative

Key Literature References and Sources for Data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.
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).

List of Relevant Phrases (Code and Full text as Stated in Chapter 2 and 3)

Code	Text
H302	Harmful if swallowed
H318	Causes serious eye damage

Disclaimer:

The information contained herein is based on data available to us and is believed to be true and accurate. However, no guarantee or warranty is provided, expressed or implied, by the company or its subsidiaries regarding accuracy of the information, the hazards connected with the use of the material, or the results to be obtained from the use thereof. Since the use of this product is within the exclusive control of the user, we do not assume any responsibility and expressly disclaim any liability for any use of this product. It is the user's responsibility to determine the conditions of safe use, storage, and disposal of the product. Compliance with all applicable federal, provincial, and local regulations remains the responsibility of the user.

Prepared by: Bri-Chem Supply Ltd.

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