



STAR GRACE MINING CO., LIMITED

ADD: 29-67, NO.929, XINAN ROAD, SHAHEKOU DISTRICT, DALIAN, LIAONING, CHINA
E-mail: maggiawang@magnesium-fertilizer.com Web: www.magnesium-fertilizer.com
Tel: +86 0411-62672278 Fax: +86 0411-6263 1121

MATERIAL SAFETY DATA SHEET

SECTION 1: Identification of the substance /mixture and of the company/undertaking

1.1. Product identifier

Product Name **Calcium Nitrate granular**/Calcium Ammonium Nitrate

CAS No 15245-12-2

EC No 239-289-5

REACH registration number 01-2119493947-16-0016

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

Recommended Use Water soluble fertilizer

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier Star Grace Mining Co., Ltd.

Address

29-67, No. 929, Xinan Road, Shahekou District, Dalian, Liaoning, China

Phone +86-411-62672278

FAX +86-411-84721630

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity - Oral Category 4 - (H302)

Serious eye damage/eye irritation Category 1 - (H318)

Classification according to Directive 67/548/EEC or 1999/45/EC

Not dangerous

Precautionary Statements P280 - Wear protective gloves/protective clothing/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 doctor/physician

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P301 + P312 - IF SWALLOWED: Call a doctor/physician if you feel unwell

P330 - Rinse mouth

P501 - Dispose of contents/ container to an approved waste disposal plant

SECTION 3: Composition/information on ingredients

3.1 Substance

Chemical Name	EC No	CAS No	Weight-%	Classification according to Directive 67/548/EEC or 1999/45/EC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Nitric acid, ammonium calcium salt	239-289-5	15245-12-2	98-100	Xn; R22 Xi; R41	Acute Tox. 4 (H302) Eye Dam. 1 (H318)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice



STAR GRACE MINING CO., LIMITED

ADD: 29-67, NO.929, XINAN ROAD, SHAHEKOU DISTRICT, DALIAN, LIAONING, CHINA
E-mail: maggiewang@magnesium-fertilizer.com Web: www.magnesium-fertilizer.com
Tel: +86 0411-62672278 Fax: +86 0411-6263 1121

Remove contaminated clothing and shoes. If symptoms persist, call a physician.

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse mouth Get medical attention Never give anything by mouth to an unconscious person

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

Toxic if swallowed. Eye Damage

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use flooding quantities of water for extinction.

Unsuitable extinguishing media Do NOT use chemical extinguisher or foam or attempt to smother the fire with steam or sand.

5.2. Special hazards arising from the substance or mixture

No specific fire or explosion hazard.

5.3. Advice for firefighters

Special protective actions for fire-fighters: 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 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas

Ensure adequate ventilation, especially in confined areas

Remove all sources of ignition

Avoid contact with skin, eyes and inhalation of vapors

Use personal protection recommended in Section 8

6.2. Environmental precautions

Avoid dispersal of spilt 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).

6.3. Methods and material for containment and cleaning up

Small spill: Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

Large spill: Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water



STAR GRACE MINING CO., LIMITED

ADD: 29-67, NO.929, XINAN ROAD, SHAHEKOU DISTRICT, DALIAN, LIAONING, CHINA

E-mail: maggiewang@magnesium-fertilizer.com Web: www.magnesium-fertilizer.com

Tel: +86 0411-62672278

Fax: +86 0411-6263 1121

courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

6.4. Reference to other sections

See Section 7 for more information

See section 8 for more information

See section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice

Ensure adequate ventilation, especially in confined areas

Avoid contact with skin and eyes

Wash contaminated clothing before reuse

Do not breathe dust/fume/gas/mist/vapors/spray

Do not eat, drink or smoke when using this product

Wash thoroughly after handling

Use personal protective equipment as required

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place

Keep away from heat

Keep locked up and out of reach of children

Keep away from food, drink and animal feeding stuffs

Store in accordance with local regulations

7.3. Specific end use(s)

Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No information available.

Derived No Effect Level (DNEL)

acute toxicity, Oral: 10 mg/kg bw/day

Predicted No Effect Concentration (PNEC)

No information available.

8.2. Exposure controls

Engineering Controls

Use with local exhaust ventilation. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles)

Hand Protection Wear protective gloves

Skin and body protection Suitable protective clothing

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls

Do not allow into any sewer, on the ground or into any body of water

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance Solid



STAR GRACE MINING CO., LIMITED

ADD: 29-67, NO.929, XINAN ROAD, SHAHEKOU DISTRICT, DALIAN, LIAONING, CHINA

E-mail: maggiewang@magnesium-fertilizer.com Web: www.magnesium-fertilizer.com

Tel: +86 0411-62672278

Fax: +86 0411-6263 1121

Color White

Odor No information available

Odor Threshold Not determined

pH 5 - 7 (10% solution in water)

Melting point/freezing point <400°C

Boiling point / boiling range Not determined

Flash point Not determined

Evaporation rate Not determined

Flammability (solid, gas) Not flammable

Flammability Limit in Air Not determined

Vapor Pressure The vapour pressure study is not required since CN-Nitcal does not melt up to 400 °C (see endpoint study record 4.2).

Vapor density Not determined

Density 2.05 g/cm³ (20°C)

Relative density Not determined

Specific gravity Not determined

Water solubility very soluble (> 10000 mg/L)

Partition coefficient (LogPow) Not determined

Autoignition temperature Not determined

Decomposition temperature Not determined

Kinematic viscosity Not determined

Dynamic viscosity Not determined

Explosive properties Not an explosive

Oxidizing properties Not determined

9.2. Other information

No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

The product is stable. Stable under recommended storage and handling conditions.

10.3. Possibility of hazardous reactions

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

10.4. Conditions to avoid

Avoid contamination by any source including metals, dust and organic materials. Keep away from heat, sparks and flame. Store away from direct sunlight.

10.5. Incompatible materials

Reactive or incompatible with the following materials: combustible materials, acids and alkalis.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity



STAR GRACE MINING CO., LIMITED

ADD: 29-67, NO.929, XINAN ROAD, SHAHEKOU DISTRICT, DALIAN, LIAONING, CHINA
 E-mail: maggiawang@magnesium-fertilizer.com Web: www.magnesium-fertilizer.com
 Tel: +86 0411-62672278 Fax: +86 0411-6263 1121

Oral LD50	Inhalation	Dermal LD50
> 300 < 2000 mg/kg bw OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)	-	> 2000 mg/kg bw OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation

Non-irritating to the skin.

Serious eye damage/eye irritation

Eye damage.

Sensitization

No sensitization responses were observed.

Germ cell mutagenicity

No information available.

Carcinogenicity

No information available.

Reproductive toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Aspiration hazard

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Fish	Aquatic invertebrates	Aquatic algae and cyanobacteria
LC50 (48h) = 447 mg/L (Cyprinus carpio)	EC50 (48h) > 100 mg/L OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)	EC50 (72 h) > 100 mg/L OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No 1907/2006, no PBT and vPvB assessment has been conducted since nitric acid, ammonium calcium salt is inorganic.

12.6. Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products

Empty containers or liners may retain some product residues. Do not empty into



STAR GRACE MINING CO., LIMITED

ADD: 29-67, NO.929, XINAN ROAD, SHAHEKOU DISTRICT, DALIAN, LIAONING, CHINA
E-mail: maggiawang@magnesium-fertilizer.com Web: www.magnesium-fertilizer.com
Tel: +86 0411-62672278 Fax: +86 0411-6263 1121

drains

Contaminated packaging Disposal should be in accordance with applicable regional, national and local laws and regulations

SECTION 14: Transport information

14.1 UN Number	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions	No information available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

International Inventories

Component	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Nitric acid, ammonium calcium salt 15245-12-2 (98-100)	X	X	X	-	-	X	-	-

"-" Not Listed

"X" Listed

15.2. Chemical safety assessment

Chemical safety assessment has been carried out for these substances.

SECTION 16: Other information

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Issue Date 20-Apr-2015

Revision date 20-Apr-2015

Revision Note Not applicable

Key or legend to abbreviations and acronyms used in the safety data sheet

TWA - TWA (time-weighted average)

STEL - STEL (Short Term Exposure Limit)

Ceiling - Maximum limit value

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances



STAR GRACE MINING CO., LIMITED

ADD: 29-67, NO.929, XINAN ROAD, SHAHEKOU DISTRICT, DALIAN, LIAONING, CHINA

E-mail: maggiewang@magnesium-fertilizer.com Web: www.magnesium-fertilizer.com

Tel: +86 0411-62672278

Fax: +86 0411-6263 1121

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed

H318 - Causes serious eye damage

Full text of R-phrases referred to under sections 2 and 3

R22 - Harmful if swallowed

R41 - Risk of serious damage to eyes

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

For and on behalf of
STAR GRACE MINING CO., LIMITED

Menzhi chao
.....
Authorized Signature(s)