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Chemical Production Co.Ltd

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1 – IDENTIFICATION

Product Name:
Drilling Grade Limestone (Calcium Carbonate)

Product Synonyms

- Ground Limestone
- Calcium Carbonate
- Drilling Grade Calcium Carbonate
- Acid Soluble Bridging Material
- Ground Calcite

Chemical Name

Calcium Carbonate

Chemical Formula

$CaCO_3$

CAS Number

471-34-1

EC Number

207-439-9

Product Type

Natural Mineral / Drilling Fluid Additive

Recommended Uses

- Oil & Gas Drilling Fluids

- Completion Fluids
- Drill-In Fluids
- Lost Circulation Material (LCM)
- Bridging Agent
- Weighting Material
- Cementing Applications
- Construction Materials

Supplier

BASEKIM

Website:
https://basekim.com.

SECTION 2 – HAZARD IDENTIFICATION

GHS Classification

This product is **not classified as hazardous** according to the Globally Harmonized System (GHS) under normal conditions of use.

Signal Word

None

Hazard Pictograms

None Required

Hazard Statements

Not classified as hazardous.

Precautionary Statements

- Avoid breathing excessive dust.
- Wash hands thoroughly after handling.
- Use appropriate ventilation where dust is generated.

- Wear eye protection during bulk handling.
- Avoid unnecessary dust release to the environment.

Other Hazards

Fine dust may cause temporary mechanical irritation to:

- Eyes
- Nose
- Throat
- Respiratory tract

Spilled powder may create slipping hazards.

Reaction with strong acids releases carbon dioxide gas.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Substance

Natural Mineral

Component	Typical Content
Calcium Carbonate ($CaCO_3$)	≥96%
Magnesium Carbonate	≤2%
Silica	≤1.5%
Iron Oxide	≤0.5%
Natural Mineral Impurities	Balance

No hazardous additives intentionally added.

Contains naturally occurring trace mineral impurities.

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SECTION 4 – FIRST AID MEASURES

Eye Contact

Flush eyes immediately with clean water for at least 15 minutes.

Remove contact lenses if present.

Seek medical attention if irritation persists.

Skin Contact

Brush off excess material.

Wash with soap and water.

Obtain medical advice if irritation develops.

Inhalation

Move affected person to fresh air.

Drink water if throat irritation occurs.

Seek medical attention if coughing or breathing difficulty persists.

Ingestion

Rinse mouth thoroughly.

Drink water.

Do not induce vomiting.

Seek medical advice if large quantities have been swallowed.

Most Important Symptoms

Temporary:

- Eye irritation
- Dry throat
- Dust irritation
- Mild coughing

SECTION 5 – FIRE FIGHTING MEASURES

Suitable Extinguishing Media

- Water Spray
- Foam
- Carbon Dioxide
- Dry Chemical

Specific Hazards

Product is non-combustible.

Packaging materials may burn.

Hazardous Combustion Products

Not applicable to the mineral product.

Fire Fighting Equipment

Use appropriate protective equipment for surrounding fire conditions.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions

Avoid generating airborne dust.

Wear suitable PPE.

Ensure adequate ventilation.

Environmental Precautions

Avoid unnecessary release into drains and waterways.

Methods for Cleanup

Vacuum using industrial equipment where possible.

Alternatively sweep carefully to minimize dust.

Collect into suitable containers for reuse or disposal.

Wash area after cleanup if necessary.

SECTION 7 – HANDLING AND STORAGE

Handling

Avoid excessive dust generation.

Avoid breathing dust.

Use with adequate ventilation.

Practice good industrial hygiene.

Storage

Store in:

- Dry warehouse
- Original sealed packaging
- Cool location

- Well-ventilated area

Protect from:

- Moisture
- Rain
- Contamination

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

No product-specific occupational exposure limit established.

Maintain airborne dust below applicable nuisance dust exposure limits.

Engineering Controls

General mechanical ventilation.

Local exhaust where dust generation occurs.

Personal Protective Equipment

Eye Protection

Safety glasses with side shields.

Hand Protection

Protective work gloves.

Respiratory Protection

N95/P2 dust respirator where airborne dust concentrations exceed occupational exposure limits.

Body Protection

Normal industrial protective clothing.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:
White to Off-White Powder

Odor:
Odorless

Physical State:
Solid Powder

Chemical Formula:
$CaCO_3$

pH (10% Slurry):
8.5–9.5

Specific Gravity:
2.70 ± 0.05

Bulk Density:
1.20–1.45 g/cm³

Moisture Content:
≤0.5%

Water Solubility:
Slightly Soluble

Acid Solubility:
Readily Soluble in Hydrochloric Acid

Melting Point:
Not Applicable (Decomposes above approximately 825°C)

Flash Point:
Not Applicable

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Auto-Ignition Temperature:
Not Applicable

Explosive Properties:
None

Oxidizing Properties:
None

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability

Stable under normal storage conditions.

Reactivity

Reacts with strong acids, releasing carbon dioxide.

Conditions to Avoid

- Excessive moisture
- Strong acids
- Dust accumulation

Incompatible Materials

- Strong mineral acids
- Strong oxidizing agents

Hazardous Decomposition Products

At elevated temperatures:

- Calcium Oxide
- Carbon Dioxide

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SECTION 11 – TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

- Eye contact
- Skin contact
- Dust inhalation
- Ingestion

Acute Toxicity

Not expected to present acute toxicity.

Skin Irritation

May cause mild temporary irritation.

Eye Irritation

Dust may cause mechanical irritation.

Respiratory Effects

Repeated inhalation of dust may irritate the respiratory tract.

Sensitization

Not expected.

Mutagenicity

No known effects.

Carcinogenicity

No known carcinogenic components in limestone.

Reproductive Toxicity

No known effects.

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Aspiration Hazard

Not applicable.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity

Not expected to be harmful to aquatic or terrestrial organisms.

Persistence

Naturally occurring mineral.

Not biodegradable.

Bioaccumulation

Not expected.

Mobility

Low mobility in soil.

Environmental Impact

Chemically stable and environmentally acceptable when used as intended.

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of unused material in accordance with local regulations.

Recycle where practical.

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Dispose of contaminated packaging through approved waste contractors.

Avoid generating airborne dust during disposal.

SECTION 14 – TRANSPORT INFORMATION

UN Number

Not regulated.

UN Proper Shipping Name

Not applicable.

Transport Hazard Class

Not regulated.

Packing Group

Not applicable.

Marine Pollutant

No.

ADR/RID

Not regulated.

IMDG

Not regulated.

IATA

Not regulated.

Transport in sealed packaging protected from moisture.

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SECTION 15 – REGULATORY INFORMATION

Prepared according to:

- OSHA Hazard Communication Standard (29 CFR 1910.1200)
- Globally Harmonized System (GHS)
- REACH Regulation (EC) No. 1907/2006
- CLP Regulation (EC) No. 1272/2008

This product is generally regarded as a non-hazardous natural mineral. Airborne dust should be controlled according to applicable occupational exposure standards.

SECTION 16 – OTHER INFORMATION

Issue Date: To be assigned

Revision Number: 1.0

Prepared For: BASEKIM

Prepared By: Technical Department