

SAFETY DATA SHEET



Product: MICRONA™
Ag Lime Powders

Version: 2.3

Revision Date: 4/1/2024

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Product Name/Trade Name(s): MICRONA™ Ag H₂O Solution Grade, MICRONA™ ArborCal, MICRONA™ Agricultural Lime

Manufacturer or Supplier's Details:

Company name of supplier: Columbia River Carbonates

Address: 300 N. Pekin Road,
Woodland, WA 98674

Telephone: (360) 225-6505

Emergency Phone: (360) 225-6505

Recommended use of the chemical and restrictions on use:

Recommended Use: Agricultural applications

Restrictions on use: For agricultural use only

SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification

Carcinogenicity (Inhalation): Category 1A

GHS Label elements

Hazard pictograms:



Signal Word: Danger

Hazard Statements: H350 May cause cancer by inhalation.
H373 May cause damage to organs (Lungs) through prolonged or repeated exposure if inhaled.

Precautionary Statements:

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P281 Use personal protective equipment as required.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/attention

Storage:

P405 Store locked up.

Disposal:

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

Potential Health Effects

Carcinogenicity:

IARC

Group 1: Carcinogenic to humans
Quartz (SiO₂) CAS# 14808-60-7

SAFETY DATA SHEET



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NTP The NTP's Report on Carcinogens lists crystalline silica (respirable size) as a known human carcinogen.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Substance

Hazardous ingredients

Chemical Name	CAS-No.	Typical composition (%)
Ground Calcium Carbonate (GCC)	1317-65-3	95 -100%
Silica, crystalline (quartz)	14808-60-7	0.3%

SECTION 4 – FIRST AID MEASURES

If inhaled: Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.
If symptoms persist, call a physician.

In case of skin contact: Wash off with soap and plenty of water.

In case of eye contact: Flush thoroughly with water as a precaution.
Remove contact lenses.
Keep eye wide open while rinsing.

If swallowed: Rinse mouth thoroughly with water and drink afterwards plenty of water to dilute material in stomach.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: None known

SECTION 5 – FIRE FIGHTING MEASURES

Flash Point: Non-Flammable

Suitable and unsuitable extinguishing media: This material is not combustible. Appropriate extinguishing media for surrounding fire should be used.

Hazardous combustion products: No hazardous combustion products are known

Special protective equipment and precautions for fire fighters: In the event of fire, wear self-contained breathing apparatus.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Measures should be taken to minimize and protect against airborne dust during cleanup operations, including use of respiratory protective equipment if necessary.

Environmental precautions: No special environmental precautions required.

Methods and materials for containment and cleaning up: Sweep up and shovel.
Keep in suitable, closed containers for disposal.

SAFETY DATA SHEET



Product: MICRONA™
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SECTION 7 – HANDLING AND STORAGE

Advice on Safe Handling: For personal protection see section 8.
Avoid dust formation.

Conditions for safe storage: Keep container tightly closed in a dry and well-ventilated place.

Materials to avoid: Do not store near acids.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients	CAS #	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ground Calcium Carbonate (GCC)	1317-65-3	TWA (Total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (Total dust)	10 mg/m3	NIOSH REL
		TWA (respirable fraction)	5 mg/m3	NIOSH REL
Silica, crystalline (quartz)	14808-60-7	TWA (respirable fraction)	0.05 mg/m3	OSHA Z-1
		TWA (respirable fraction)	0.05 mg/m3	NIOSH REL
		TWA (respirable fraction)	0.025 mg/m3	ACGIH
		TWA (respirable fraction)	0.1 mg/m3	OSHA P0
		TWA (respirable fraction)	10 mg/m3 / %SiO2 + 2	OSHA Z-3
		TWA (respirable fraction)	250 mppcf / %SiO2 + 5	OSHA Z-3

Appropriate Engineering Controls: Use with adequate ventilation to reduce dust exposure

Respiratory Protection: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection remarks: For prolonged or repeated contact, use protective gloves.

Eye protection: Safety Glasses

Skin and body protection: Protective suit

Hygiene measures: General industrial hygiene practice

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Powder

Color: White

Odor: Characteristic

Odor Threshold: Not relevant

pH: 8.5-9.5, Concentration: 100g/l (20°C) Method: DIN-ISO 787/9

Melting Point: >800°C

Freezing Point: Decomposition: Decomposes below the melting point.

Boiling Point: Not applicable. Product is a solid

Flash Point: Decomposition: Decomposes below the boiling point

Flammability (solid, gas): Does not flash

Evaporation Rate: Non-flammable

Vapor Pressure: Not applicable

SAFETY DATA SHEET



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Vapor Density: Not applicable
Specific Gravity:
(Relative Density): 2.71 g/ml
Viscosity: Not applicable
Solubility in Water: 0.014 g/L @ 20°C
Partition coefficient: n-octanol/water: Not applicable
Auto-ignition Temperature: Not applicable
Thermal Decomposition: >600°C
Upper explosion limit: Not explosive
Lower explosion limit: Not explosive

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: Stable under recommended storage conditions.

Chemical Stability: No decomposition if stored and applied as directed.

Possibility of hazardous reactions: Stable under recommended storage conditions.
No decomposition if used as directed.
Reacts with acids and liberates carbon dioxide. This displaces the oxygen in the air in closed spaces (danger of suffocation).

Conditions to Avoid: No data available

Hazardous Decomposition Products: Thermal decomposition can produce calcium oxide and carbon dioxide.

SECTION 11 – TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Inhalation: Dust in high concentrations may irritate the respiratory system. Frequent inhalation of dust over a long period of time increases the risk of developing pneumoconiosis.

Long term exposure to respirable size crystalline silica dust can cause lung injury (silicosis). IARC and NTP have determined that crystalline silica inhaled from occupational sources can cause cancer in humans. Risk of injury is dependent on the duration and level of exposure.

Eye Contact: May cause irritation due to mechanical abrasion.

Skin Contact: Prolonged contact may cause dryness of the skin.

Ingestion: May cause irritation. Not an expected route of exposure.

Symptoms related to the physical, chemical and toxicological characteristics:

Symptoms: Unknown

Acute toxicity

Product:
Acute oral toxicity LD50 Oral (Rat) >5,000 mg/kg

Ingredients:
Ground Calcium Carbonate (GCC):
Acute oral toxicity: LD50 Oral (Rat) >5,000 mg/kg

SAFETY DATA SHEET



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Ag Lime Powders

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Revision Date: 4/1/2024

Delayed and immediate effects as well as chronic effects from short- and long-term exposure:

Skin corrosion/irritation: Prolonged contact may cause dryness of the skin.

Serious eye damage/eye irritation: Slightly irritating due to mechanical abrasion

Respiratory or skin sensitization: Dust in high concentrations may irritate the respiratory system. Frequent inhalation of dust over a long period of time increases the risk of developing pneumoconiosis.

Long term exposure to respirable size crystalline silica dust can cause lung injury (silicosis). IARC and NTP have determined that crystalline silica inhaled from occupational sources can cause cancer in humans. Risk of injury is dependent on the duration and level of exposure.

Germ cell mutagenicity
No data available

Carcinogenicity

Ingredients:

Silica, crystalline (quartz):

Carcinogenicity-Assessment: Positive evidence from human epidemiological studies (inhalation)

IARC

Group 1: Carcinogenic to humans
Silica, crystalline (quartz) 14808-60-7

NTP

Known to be human carcinogen
Silica, crystalline (quartz) 14808-60-7

Reproductive toxicity: No data available

STOT-repeated exposure

Ingredients:

Silica, crystalline (quartz):

Routes of exposure: Inhalation

Target Organs: Lungs

Assessment: May cause damage to organs through prolonged or repeated exposure.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): >10,000 mg/l
Exposure time: 96 h

Toxicity to daphnia and other:
aquatic invertebrates EC50 (Daphnia magna (Water flea)): >1,000 mg/l
Exposure time: 48 h

Toxicity to algae: NOEC (Desmodesmus subspicatus (green algae)): 75 mg/l
Exposure time: 72 h
EC50 (Desmodesmus subspicatus (green algae)): >200 mg/l
Exposure time: 72 h

Ingredients:

Ground Calcium Carbonate (GCC):

Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): >10,000 mg/l
Exposure time: 96 h

Toxicity to daphnia and other: EC50 (Daphnia magna (Water flea)): >1,000 mg/l

SAFETY DATA SHEET



Product: MICRONA™
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Version: 2.3

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aquatic invertebrates Exposure time: 48 h

Toxicity to algae: EC50 (Desmodesmus subspicatus (green algae)): >200 mg/l
Exposure time: 72 h

Silica, crystalline (quartz):

Toxicity to fish: No toxicity at the limit of solubility

Toxicity to daphnia and other: No toxicity at the limit of solubility
aquatic invertebrates

Toxicity to algae: No toxicity at the limit of solubility

Toxicity to microorganisms: No toxicity at the limit of solubility

Persistence and degradability

Product:

Biodegradability: Not applicable

Bioaccumulative potential

Ingredients:

Ground Calcium Carbonate (GCC):

Partition coefficient: n-
octanol/water Not applicable

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone – CAA
Section 602 Class I Substances

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, APP. A+B).

Additional ecological information: In solid state, these minerals are a major part of the rocks of the earth's surface. They are dissolved in a natural state and indispensable part of the natural waters. These minerals are not biodegradable. Negative effects on the environment should therefore be excluded. Restrictions may be indicated that concentrated suspensions of these minerals in natural waters may have an unfavorable effect on water organisms (disturbance of the micro flora and fauna in the sediment and subsequent detriment to the existence of higher water organisms).

Ingredients:

Ground Calcium Carbonate (GCC):

Results of PBT and vPvB: Non-classified PBT substance, Non-classified vPvB substance
assessment

SECTION 13 – DISPOSAL CONSIDERATIONS

From a waste perspective, this product is not considered hazardous and may be disposed of as solid waste in accordance with applicable federal, state, provincial, and local regulations.

SAFETY DATA SHEET



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SECTION 14 – TRANSPORT INFORMATION

International Regulation

Transport in Bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

Not a DOT hazardous material. Local regulations may apply.

SECTION 15 – REGULATORY INFORMATION

OSHA Hazards: Carcinogen

EPCRA – Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ

SARA 311/312 Hazards:

Acute/Chronic Health Hazard

Specific target organ toxicity (single or repeated exposure)

SARA 302:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

SARA 313:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III Section 313.

Clean Air Act:

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, APP. A+B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This Product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act:

This product does not contain any Hazardous Substances listed under the U.S. Clean Water Act, Section 311, Table 116.4A

This product does not contain any Hazardous Chemicals listed under the U.S. Clean Water Act, Section 311, Table 117.3

This Product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

California Proposition 65:



WARNING: This product can expose you to chemicals including crystalline silica, which is known to the State of California to cause cancer. For more information, visit www.P65Warnings.ca.gov.

TSCA:

This product primarily is natural calcium carbonate from limestone ore which is listed on the U.S. EPA TSCA inventory under Limestone, CAS# 1317-65-3. In addition, all other ingredients and/or processing aids are also on the TSCA inventory.

SAFETY DATA SHEET



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DSL:

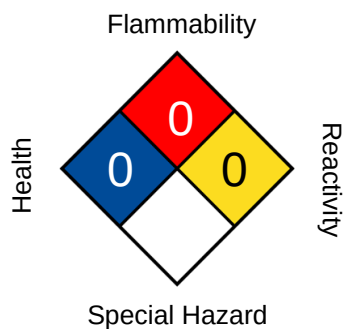
By virtue of its status as a "substance occurring in nature", ground limestone is considered to be on the Canadian Domestic Substances List. In addition, all other ingredients and/or processing aids are also on the DSL.

CONEG:

Being derived from limestone ore, this product may contain incidental trace levels of naturally occurring metals. However, no metals are intentionally added and this product complies with the CONEG requirement of <100 ppm of Cd, Cr⁺⁶, Pb, and Hg.

SECTION 16 – OTHER INFORMATION

NFPA:



Prepared by Technical Support Group

The information provided in this 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.