

PRODUCT IDENTIFICATION

Product Name:	Ground Limestone
Trade Name:	PureCal™ 3, 3T, 60, 300, 325, 6-20, 12-40, 16-200, 30-200, 50-200, CalRite, Cagecal
Product Codes:	Purecal
Manufacturer's Name:	Cerne Calcium Company
Street Address:	2123 200th Street
City/State/Zip code:	Fort Dodge, IA 50501 USA
Telephone Company:	(515) 955.8549

COMPOSITION / INFORMATION ON INGREDIENTS

Common Chemical Name:	Limestone
Synonyms:	Calcium Carbonate; Whiting
CAS Number:	1317-65-3

Limestone is a natural occurring mineral substance consisting primarily of calcium carbonate with lesser amounts of dolomite together with many other ingredients in small but varying amounts.

Compound	CAS Number	Typical Concentration, %
Calcium Carbonate	471-34-1	94-98
Magnesium Carbonate	546-93-0	1.2-5.8
Crystalline Silica	14808-60-7	0.2-0.8

In addition, surface treated products, designated by the letter "T", contain 0.75 to 1/5% stearic acid (CAS #57-11-4.)

Additives or ingredients which may be present, and which might be of industrial hygiene interest:

Silica: Product contains greater than 0.1% total crystalline silica. Inhalable crystalline silica fraction unknown.

The International Agency for Research on Cancer (IARC) believes there is sufficient evidence that crystalline silica is carcinogenic to humans if it is inhaled in the form of quartz or cristobalite from occupational sources. IARC notes that carcinogenicity was not detected in all industrial circumstances studied and that the carcinogenicity of crystalline silica may be dependent on inherent characteristics of the silica, or on external factors affecting its biological activity, or on the distribution of its polymorphs (quartz, cristobalite.)

Naturally occurring minerals invariably contain trace quantities of materials cited in the California Safe Drinking and Toxic Enforcement Act. In addition to crystalline silica, limestones frequently contain trace quantities of lead and arsenic. Test results for these products show that lead and arsenic, if present, are at concentrations of less than 5 PPM each.

HAZARDS IDENTIFICATION

Route of Exposure	Hazardous Determination	Basis for Determination
Skin Contact	Non-hazardous	Historical
Skin Absorption	Non-hazardous	Historical
Eye Contact	Nuisance Dust	Historical
Ingestion	Non-hazardous	Historical
Inhalation		
Limestone		ACGIH TLV: Total dust 10.0 mg/m ³ OSHA PEL: Total dust 15 mg/m ³ TWA Respirable dust 5 mg/m ³ TWA

Source: OSHA 29 CFR 19190.1000 Table Z-1-A

Source: ACGIH* TLV'S Threshold Limit Values for Chemical Substances

Source: To the best of our knowledge, no studies have been done on eye, skin, or ingestion hazards.

**ACGIH classifies limestone as a nuisance dust when toxic impurities are not present (e.g. quartz less than 1%.)*

FIRST AID MEASURES

Eye and Skin: No special precautions; flush with water.

Inhalation & Ingestion: No special precautions.

FIRE-FIGHTING MEASURES

Flash Point: None. Autoignition Temperature: None.

Flammable Limits in air: N.A.

Limestone is not a fire hazard or an explosive hazard in either the powder or slurry form. Special fire fighting procedures or extinguishing media are not applicable.

ACCIDENTAL RELEASE MEASURES

Procedure when material is released or spilled: Accidental releases can be cleaned up by sweeping, vacuuming, or flushing with water.

Neutralizing Chemicals: None required.

HANDLING & STORAGE

No special precautions to be taken in handling and storing.

Ventilation: Use sufficient general area ventilation. Local exhaust may be necessary where Threshold Limit Values (TLVs) are exceeded or dusty conditions exist.

EXPOSURE CONTROLS / PERSONAL PRETECTION

Personal Protective Equipment:

Eye: Non-essential, but desirable.

Other: None.

Gloves: Non-essential.

Respiratory Protection: For dusty conditions use a dust mask approved by NIOSH.

Precautionary Statements/Labeling:

Product Safety Label

Health	0*	no acute effects
Flammability	0	none
Reactivity	0	none
Maximum Personal Protection	E*	dust mask/HMIS label

Ground limestone (CAS #1317-65-3)

Silica, Quartz (CAS #14808-60-7)

***Caution:** Prolonged breathing of excessive dust may affect lung function.

This product contains small amounts of crystalline silica. Inhalable crystalline silica from occupational sources is considered a human carcinogen. Use dust mask in dusty areas. **Cerne Calcium Company, Fort Dodge, IA 50501**

PHYSICAL CHEMICALS PROPERTIES

Appearance and odor:	white powder with negligible odor.
Boiling point:	NA
Vapor pressure:	NA
Evaporation rate (butyl acetate = 1):	NA
Melting point:	decomposes @ 1799° fahrenheit
Vapor density:	NA
% volatiles by volume:	NA
Specific gravity (water = 1.0):	2.71
pH:	8.5 – 9.5 at 10% solids
Solubility in water:	negligible

NA – not applicable

STABILITY AND REACTIVITY

Conditions contributing to instability: reacts with acids to liberate CO₂.

Conditions contributing to hazardous polymerization: none.

Hazardous decomposition products: none.

TOXICOLOGICAL INFORMATION

Effects of acute overexposure: No acute effects. Brief exposures to nuisance dust concentrations above the 8-hour recommended Threshold Limit Value (TLV) should pose no acute health problems.

Effects of chronic overexposure: As is true with any mineral product, long term overexposure to high concentrations of this dust without the use of a dust mask may product X-Ray evidence of dust in the lungs. Continued long term overexposure may affect respiratory function in some individuals.

Medical conditions aggravated by exposure: unknown.

ECOLOGICAL INFORMATION

Limestone is not classified as a "toxic pollutant" or a "hazardous substance" under Sections 307 and 311 of the Clean Water Act.

DISPOSAL CONSIDERATIONS

Waste Disposal Method: Not a hazardous waste under RCRA Section 3001. Use normal solid waste disposal procedures which are in compliance with federal, state, and local regulations.

TRANSPORT OF INFORMATION

DOT: Not restricted.

International Regulations

UN number:	none
Inland waterways:	none
Air transport (IDAO/IATA):	none
EINECS:	215-279-6
Land transport:	none
Sea transport (IMDG code):	none
Harmonized tariff code:	2836.50.00

REGULATORY INFORMATION

State:	Consult local and state hazard communication regulations.
Federal:	FDA: 21 CFR 175.105; 21 CFR 175.300; 21 CFR 176.170; 21 CFR 176.180; 21 CFR 177.1210; 21 CFR 178.3297; 40 CFR 180.1011: ©
USDA:	none
CPSC:	none
TSCA:	<i>Is this product and all its ingredients certified for inclusion in the Toxic Substances Control Act Inventory of Chemical</i>

Substances? Yes.

OSHA: Have ingredients in concentrations above 0.1% been:

1. Listed in the NTP Annual Report on Carcinogens? **Yes, silica.**

2. Found to be a potential carcinogen by OSHA or IARC? **Yes, silica.**

SARA304: NO	SARA311: YES**	SARA312: possibly
SARA313: NO	NJRTK: YES	CAPROP65: YES
CANDSL: YES	EINECS: YES	RCRA: NO

Additional Information: **SARA311: listed. ACGIH TLV assigned.

Warning: This product contains a chemical known to the State of California to cause cancer. Trace amounts of lead, cadmium, respirable crystalline silica.

OTHER INFORMATION

The information contained in this Material Safety Data Sheet is believed to be reliable. No guarantee is implied or expressed regarding the accuracy of this information or the use of the product since the conditions of use are beyond our control. Nothing contained herein should be construed as recommendation to sue this product in conflict with federal or state regulations or existing patents covering any material or its use.

For more information contact:

**Cerne Sales Company
West Des Moines, IA**

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