SAFETY DATA SHEET (S D S)

1. PRODUCT & COMPANY IDENTIFICATION
    a. Product Identifier: Xcaliber
    b. Other Means of Identification: Barn Lime
    c. Recommended Use of the Chemical and Restrictions on Use: Various environmental applications (including soil stabilization, pH adjustment, ash treatment, waste water treatment, and desulfurization), agricultural, portland cement additive, asphalt paving additive.
    d. Name, Address, and Telephone Number of Supplier: SynaTek, LP, 737 Hagey Center Dr. Unit A Souderton, PA 18964, Phone 888-408-5433
    e. Emergency Telephone Number: CHEMTREC 800-424-9300

2. HAZARDS IDENTIFICATION:
    a. Hazard Classification:
        i. Eye Damage Category – 2B
        ii. Skin Irritation Category - 3
        iii. Specific Target Organ Toxicity Single Exposure Category - 3 (Respiratory System)
        iv. Carcinogen Category - 1 (due to presence of ≥ 0.1% crystalline silica)
    b. Label Elements:
        i. Signal Word: Warning
        ii. Hazard Statements: May Cause Skin Irritation, May Cause Eye Damage, May Cause Cancer (due to presence of ≥ 0.1% crystalline silica), May Cause Respiratory Irritation
        iii. Symbols:

iv. Precautionary Statements: Wear protective gloves and eye protection. Wash exposed skin after handling. Avoid breathing dust. Use only outdoors or in a well-ventilated area. Obtain instructions before use. Do not handle until all safety precautions have been read and understood.

If on skin: Wash exposed skin with soap and water. If skin irritation occurs, get medical attention.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and if it's easy to do so. Continue rinsing. Seek medical attention immediately.
If inhaled: Remove person to fresh air and keep comfortable. Seek medical attention if the person feels unwell.
If exposed or concerned - obtain medical advice.
Dispose of contents or containers in accordance with applicable regulations.

c. Hazards Not Otherwise Classified:
   i. Ingredients With Unknown Toxicity: NOT APPLICABLE

3. COMPOSITION/INFORMATION ON INGREDIENTS
   a. Chemical name: $CaCO_3$ or $CaCO_3$-$MgCO_3$
   b. Common Name and Synonyms: high calcium limestone or dolomitic limestone
   c. CAS Numbers:

COMPONENT	CAS#	% BY WT.
Limestone/Dolomite $CaCO_3$: 55%-87% $MgCO_3$: 12%-44%	1317-65-3	≤97
Crystalline Silica	14808-60-7	>0.1

4. FIRST AID MEASURES
   a. Description of First Aid Measures:
      i. Eyes - Immediately flush eyes with generous amounts of water for at least fifteen minutes. Pull back the eyelid while washing to ensure all limestone dust has been removed. Seek medical attention immediately. Do NOT rub eyes.
      ii. Skin - Wash exposed area with pH neutral soap or a mild detergent and cool water. Seek medical attention if irritation persists or later develops.
      iii. Ingestion - Do not induce vomiting. Seek medical attention immediately. Never give anything by mouth unless instructed to do so by medical personnel.
      iv. Inhalation - Move victim to fresh air. Seek medical attention if necessary. If breathing has stopped administer CPR.
   b. Most Important Symptoms and Effects, both Acute and Delayed:
      i. Irritation of skin, eyes, gastrointestinal tract, or respiratory tract. Long term exposure by inhalation may cause permanent damage. This product contains crystalline silica, which has been classified by IARC as a Group 1 carcinogenic to humans when inhaled. Inhalation of silica may also cause a chronic lung disorder - silicosis.
   c. Indication of Any Immediate Medical Attention and Special Treatment Needed:
      i. See first aid information above. Note to physicians: Provide general supportive measures and treat symptomatically.

5. FIRE FIGHTING MEASURES
   a. Extinguishing Media:
      i. Use dry chemical fire extinguisher.
   b. Fire Hazards:

i. None

c. Special Protective Equipment and Fire Fighting Instructions:
   i. Keep personnel away and upwind of fire. Wear full fire-fighting turn-out gear (full bunker gear), and respiratory protection (SCBA).

6. ACCIDENTAL RELEASE MEASURES
   a. Personal Precautions, Protective Equipment, and Emergency Procedures:
      i. Spill/Leak Procedures: Use proper protective equipment including gloves, eye protection (goggles), and cover exposed skin area.
      ii. Small Spills: Use water or dry methods to collect spilled materials. Evacuate area downwind of cleanup operations to minimize dust exposure
      iii. Large Spills: Use wet or dry methods to collect spilled materials. Evacuate area that is located downwind of cleanup operations to minimize dust exposure. Store spilled materials in dry, sealed plastic or metal containers.
   b. Methods and Materials for Containment and Cleanup:
      i. Containment: For large spills, as much as possible, avoid generation of dust. Prevent release to sewers and waterways.
      ii. Cleanup: Residual amounts of material can be flushed with water. Equipment can be washed with either a mild vinegar and water solution, or detergent and water.

7. HANDLING AND STORAGE
   a. Precautions for Safe Handling:
      i. Keep in tightly closed containers. Protect containers from physical damage.
   b. Conditions for Safe Storage, Including Incompatibilities:
      i. Store in a cool, dry, and well-ventilated location. Do not store near incompatible materials (See Section 10 below).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
   a. Exposure Limits:

Component	CAS#	Exposure Limits
Limestone	1317-65-3	OSHA PEL: 15 mg/m^3 (total Dust) 5 mg/m^3 (respirable) ACGIH TLV: 5 mg/m^3 (respirable) 15 mg/m^3 (total)
Crystalline Silica	14808-60-7	OSHA PEL: 10 mg/m3 divided by (the percentage of silica in the dust plus 2) (respirable) ACGIH TLV: 0.025 mg/m3

   b. Engineering Controls:
      i. Provide ventilation adequate to maintain PELs
   c. Individual Protection Measures
      i. Respiratory Protection: Use NIOSH/MSHA approved respirators if airborne concentration exceeds PEL.
      ii. Skin Protection: Use appropriate gloves and appropriate clothing.
      iii. Eye Protection: Use safety glasses with side shields or safety goggles. Use caution when wearing contact lenses.
      iv. Other: Eye wash fountain and emergency showers are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

a. Appearance: White or Gray-white material
b. Odor: Binder may have a slight scent (lignin)
c. Odor Threshold: N/A
d. pH @ 25°C: 7-9
e. Melting Point: Decomposes at 340° C, 650° F
f. Flash Point: N/A
g. Evaporation Rate: N/A
h. Flammability: N/A
i. Vapor Pressure: N/A
j. Specific Gravity: 2.8-3.0
k. Bulk Density: 65-80 lb/ft^3 (approx.)
l. Solubility in Water: ~0.1g/100g.
m. Auto-Ignition Temperature: N/A

10. STABILITY AND REACTIVITY
    a. Reactivity: Contact with incompatible materials such as acids should be avoided.
    b. Chemical Stability: Limestone is chemically stable
    c. Possibility of Hazardous Reactions: Avoid contact with acids.
    d. Conditions to Avoid: Do not allow limestone to come into contact with substances mentioned in 10(e) without taking appropriate precautions.
    e. Incompatibility: Limestone should not be mixed or stored with the following materials due to the potential for violent reactions:
        i. Acids
        ii. Reactive fluorinated compounds
        iii. Reactive brominated compounds
        iv. Organic acid anhydrides
        v. Nitro - organic compounds
        vi. Reactive phosphorous compounds
        vii. Interhalogenated compounds
    f. Hazardous Decomposition Products: N/A

11. TOXICOLOGICAL INFORMATION
    a. Information on the Likely Routes of Exposure: See First Aid discussion above.
    b. Symptoms Related to Physical, Chemical and Toxicological Characteristics: See First Aid discussion above.
    c. Delayed and Immediate Effects and Also Chronic Effects From Exposure: See First Aid discussion above.
    d. Numerical Measures of Toxicity: NA
    e. Carcinogen Listing: Limestone is not listed by MSHA, OSHA, or IARC as a carcinogen; however, this product contains crystalline silica, which has been classified by IARC as a (Group 1) carcinogen to humans when inhaled.

12. ECOLOGICAL INFORMATION
    a. Ecotoxicity: This product is not reported to have any ecotoxicity effects.
    b. Persistence and Degradability: NA
    c. Bio-accumulative Potential: This material exhibits no bio-accumulation effect or food chain concentration toxicity.
    d. Mobility in Soils: Soil mobility can vary widely based on soil properties and weather conditions

e. Other Adverse Effects (Such as Being Hazardous to the Ozone Layer): The material is alkaline and, if released into water or moist soil, it will cause an increase in pH.

13. DISPOSAL CONSIDERATIONS

a. Dispose of in accordance with all applicable federal, state, and local environmental regulations. If this product, as supplied and unmixed, becomes a waste, it will not meet the criteria for a hazardous waste as defined under RCRA.

14. TRANSPORTATION INFORMATION

a. This material is not classified as a *hazardous material* under U.S. DOT or Canadian TDG regulations.

15. REGULATORY INFORMATION

a. EPA Regulations:
   i. RCRA Hazardous Waste Number: Not listed in 40 CFR 261.33 as a hazardous waste by listing or characteristic.
   ii. RCRA Hazardous Waste Classification: Not listed in 40 CFR 261 as a hazardous waste by listing or characteristic.
   iii. CERCLA Hazardous Substance (40 CFR 302.4): Unlisted specific per RCRA, sec. 3001; CWA, Section 311 (b)(4); CWA, Section 307(a), CAA, Section 112
   iv. CERCLA Reportable Quantity (RQ): Not Listed
   v. SARA 311/312 Codes: Considered by SARA (1986) to be a hazardous chemical and a delayed health hazard.
   vi. SARA Toxic Chemical (40 CFR 372.65): Not subject to reporting requirements of Section 313-Title III.
   vii. SARA EHS (Extremely Hazardous Substance) (40 CFR 355); Not Listed
   viii. Threshold Planning Quantity (TPQ): Not Listed
   ix. USEPA TSCA Inventory List: Crystalline silica is exempt from reporting under the inventory update rule.
b. OSHA/MSHA Regulations: Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1a) not listed, MSHA: Not Listed; OSHA Specifically Regulated Substance (29 CFR 1910) not listed
c. State Regulations: Consult state and local authorities for guidance.
d. HMIS: Health Risks 1, Flammability 0, Reactivity 0, Personal Protection X
e. NFPA: Health Hazard 1, Fire Hazard 0, Reactivity 1, Special 0
f. WHMIS Classification: "E" Corrosive Materials (listed due to corrosive effect on aluminum)
g. WHMIS Classification: "D2A" Materials causing other toxic effects

16. OTHER INFORMATION

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This product should only be used by knowledgeable persons. While the information provided in this Safety Data Sheet is believed to provide a useful summary of the hazards, this product, as it is commonly used, cannot anticipate and provide all of the information that might be needed in every situation. Inexperienced product users should obtain proper training before using this product. SELLER MAKES NO WARRANTY, EXPRESSED OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY SynaTek, LP except that the product shall conform to contracted specifications. The information provided herein is believed bySynaTek® to be accurate at the time of preparation. This SDS is prepared from sources believed to be reliable; however, it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of this product, and to determine the suitability of the product for its intended use. Buyer's exclusive remedy shall be for damages and no claim of any kind, whether as to product delivered or for non-delivery of product, and whether based on contract, breach of warranty, negligence, or otherwise shall be greater in amount than the purchase price of the quantity of product with respect to which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.