SAFETY DATA SHEET

1. Product and Company Identification

Product Identifier: **Diamond Pro Calcined Clay**
Date Prepared: September 10, 2013
Chemical Formula: Mixture
Manufacturer Information: Diamond Pro
1112 E. Copeland Road, STE. 500
Arlington, TX 76011
1-800-228-2987

Product Use: Calcined clay products are used on the skinned area of baseball and softball infields to improve drainage and to quickly dry puddles and muddy conditions.

Website: www.diamondpro.com

2. Hazard Identification

Overview: This product contains naturally occurring crystalline silica as quartz. Prolonged and repeated exposure to airborne crystalline silica may result in silicosis, a form of progressive pulmonary fibrosis characterized by impairment of lung function.

Maintaining occupational dust exposures to levels less than the occupational exposure levels listed in Section 8 are recommended to minimize the potential for silicosis, respiratory tract, eyes and skin irritation. Under normal conditions of use, exposure to this product does not cause adverse effects.

- **Signal Word:** Danger

Health Hazard – Carcinogenicity Category 1A

Hazards: **Inhalation:**
Short Term: Exposure to large amounts of dust in a short period of time may result in blockage of nasal and respiratory passages.
Long Term: Breathing crystalline silica can cause lung disease, including silicosis and lung cancer.

Eyes:
Short Term: Excessive dust exposure may cause corneal abrasion.
Long Term: None known.

Ingestion:
Short Term: None known.
Long Term: None known.

Skin:
Short Term: Minor abrasion.
Long Term: None known.

Target Organs: Lungs

3. Composition / Information on Ingredients

INGREDIENT	CAS NUMBER	PERCENT WEIGHT
Montmorillonite	1318-93-0	90-93 bulk (typical)
Silica, crystalline, Quartz	14808-60-7	7-10 bulk

4. First Aid Measures

Eye contact: Flush eyes with plenty of water for at least 15 minutes. Do not rub eyes. Get medical attention if irritation persists.

Skin contact: Not needed with for normal use. Wash with soap and water if irritated. Get medical attention if irritation persists.

Inhalation: Remove from area to fresh air. Seek medical attention if respiratory irritation develops or if breathing becomes difficult. If breathing is difficult, give oxygen. If not breathing give artificial respiration.

Ingestion: Unlikely to cause ill effects. If large amount of uncontaminated material is swallowed, get medical attention.

Note to Physician: Treat symptomatically.

5. Fire Fighting Measures

See Section 9 for Flammability Properties

Extinguishing Media: Clay will not ignite, use extinguishing media suitable for surrounding fire.

Protective Equipment and Precautions for Firefighters: Firefighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

Fire Fighting Measures: Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Use extinguishing agents appropriate for surrounding fire.

6. Accidental Release Measures

Spill or leak procedures: Avoid generating and breathing dust. Vacuum if dry using HEPA filter equipped vacuum or other suitable method to avoid generating dust. If spilled on wet, oily, or icy surface, personal safety may be enhanced by leaving the spilled material to absorb liquids and to improve traction.

Personal Protective Equipment: Use appropriate personal protective equipment, such as safety goggles, gloves and a NIOSH approved particulate respirator if airborne dust levels exceed occupational exposure limits listed in Section 8.

7. Handling and Storage

Handling Procedures: The product contains crystalline silica, which may become airborne without producing a visible dust cloud. Avoid creating dusty conditions. Use only with adequate ventilation to keep exposure below recommended exposure limits. Use appropriate personal protective equipment, such as, safety goggles, gloves and a NIOSH approved particulate respirator if airborne dust levels exceed occupational exposure limits listed in Section 8.

Storage Procedures: Store in a dry area. Use good housekeeping in storage and work areas to prevent accumulation of dust.

8. Exposure Controls and Personal Protection

Exposure Guidelines

Components Exposure Limits

INGREDIENT	CAS NUMBER	OSHA PEL (mg/m^3)	ACGIH TLV (mg/m^3)
Silica, crystalline, α-Quartz	14808-60-7	$\frac{10\ mg/m^{3*}}{\%SiO_2 + 2}$	0.025 R
Montmorillonite	1318-93-0	NA	NA
Particulates Not Otherwise Classified/Regulated (PNOC; PNOR)	NA	15 (total dust) 5 (respirable dust)	NA

Notes:

- Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs) are 8-hour TWA (time-weighted average) concentrations unless otherwise noted.
- Threshold Limit Values (TLV) established by the American Conference of Governmental Industrial Hygienists (ACGIH) are 8-hour TWA concentrations unless otherwise noted. A "C" designation denotes a ceiling limit, which should not be exceeded during any part of the working exposure unless otherwise noted. A Short Term Exposure Limit (STEL) is defined as a 15-minute TWA exposure, which should not be exceeded at any time during a workday even if the 8-hour TWA is within the TLV-TWA.
- Inhalable fraction (I). The concentration of inhalable particulate for the application of this TLV is to be determined from the fraction passing a size-selector with the characteristics defined in the ACGIH TLVs and BEIs Appendix C.
- Respirable fraction (R) The concentration of respirable dust for the application of this limit is to be determined from the fraction passing a size-selector with the characteristics defined in the ACGIH TLVs and BEIs Appendix C.

*PEL shown for silica – quartz is based on the respirable fraction.
NA – Not available.

Engineering Controls

Ventilation: Ventilation should be sufficient to maintain inhalation exposures below the applicable OSHA PELs and ACGIH TLVs.

Personal protective equipment

Eye/face protection: ANSI Z87.1-2003 approved safety glasses with side shields.

Respiratory protection: Respirators are normally not required. Respirator may be required if exposure exceeds occupational exposure standards and guidelines listed in above. Use a NIOSH-approved N-95 particulate or better respirator chosen in accordance with the OSHA Respirator Standard 29 CFR 1910.134.

Other PPE: Protective gloves to prevent abrasion.

Special Precautions: Do not use a blower to remove dust from clothing or any other surface.

9. Physical & Chemical Properties

Physical State:	Granular Clay.
Appearance:	Buff to gray color.
Odor:	No odor
Odor threshold:	Not applicable
Melting point:	Not available
Boiling point:	Not available
Specific gravity:	2.2
Density:	Not available
Flash point:	Not available
Flammability:	Nonflammable
Auto Ignition temperature:	Not applicable
Decomposition temperature:	Not applicable
Flammability limits in air:	Not applicable
Vapor pressure:	Not applicable
Vapor density:	Not available
Solubility (water):	0%
pH:	Not available
Evaporation rate:	Not applicable
Viscosity:	Not applicable

Partial coefficient: n-octanol/water: Not applicable

10. Chemical Stability & Reactivity Information

Stability: Stable at normal temperatures and pressure.

Polymerization: Hazardous polymerization will not occur.

Chemical Incompatibilities: Hydrofluoric acid, turpentine, vegetable oil, or other unsaturated organic compounds may generate heat.

Conditions to avoid: Avoid contact with incompatible materials.

Hazardous Decomposition Products: None

11. Toxicological Information

Principle Route of Exposure: Inhalation, skin or eye contact and ingestion.

Irritation Data: Dust can be irritating to skin, eyes and nasal passages.

Hazards:

Inhalation:
Short Term: Exposure to large amounts of dust in a short period of time may result in blockage of nasal and respiratory passages.
Long Term: Breathing crystalline silica can cause lung disease, including silicosis and lung cancer.

Skin:
Short Term: Minor abrasion.
Long Term: None known.

Eye:
Short Term: Excessive dust exposure may cause corneal abrasion.
Long Term: None known.

Ingestion:
Short Term: None known.
Long Term: None known.

Health effects associated with ingredients

Silica
Silicosis is lung damage caused by breathing dust containing fine particles of crystalline silica. If silica particles are inhaled they become embedded in the lungs. The lung tissues react by developing fibrotic nodules and scarring around the trapped particles. The scare tissue makes the lungs hard and stiff. The scarring can greatly reduce the function of the lungs making it difficult and sometimes painful to breathe. Not only does silica tear up the lungs but it also reduces the body's ability to fight off infections, making workers more susceptible for developing other lung illnesses and infections. If workers smoke, silica exposure may greatly increase the risk of developing lung cancer. The incidence of tuberculosis is high among silicosis victims.

Early stages of the disease may go unnoticed. Early symptom of silicosis can include:

- Shortness of breath during physical exertion;
- Fever; and
- Occasionally bluish skin at the ear lobes or lips.

Progression of silicoses can lead to:

- Fatigue;
- Labored breathing;
- Loss of appetite;
- Pain in the chest; and
- Respiratory failure, which may cause death.

In severe cases, fibrous tissue can hinder the flow of blood in vessels of the lung and the heart can enlarge in an effort to pump more blood. Death can result from cardiopulmonary effects of chronic silicosis.

Chronic silicosis, the most common form of the disease, may go undetected for years in the early stages. Chest x-rays may not reveal an abnormality until after 15 or 20 years of exposure. If you believe you are overexposed to silica dust, visit a doctor who knows about lung diseases. The progress of silicosis can only be stopped; but cannot be cured. Silica dust can also irritate worker's eyes. Goggles or safety glasses should be worn if eye irritation is a problem.

Component Carcinogenicity

Silica, Crystalline: Quartz and Cristobalite
IARC – 1: Carcinogenic to Humans.
NTP – K: Known to Be a Human Carcinogen.
NIOSH – Ca: Potential occupational carcinogen, with no further categorization.
ACGIH TLV – A2: Suspected Human Carcinogen.

Key:
IARC – International Agency for Research on Cancer
NTP – U.S. National Toxicology Program
NIOSH – U.S. National Institute for Occupational Safety and Health
ACGIH - American Conference of Governmental Industrial Hygienists

12. Ecological Information

Environmental Fate: No Data Available
Environmental Toxicity: No Data Available

13. Disposal Considerations

If this material, as provided by the manufacturer, becomes a waste, it does not meet the criteria of a hazardous waste as defined by the environmental protection agency under the authority of the resource conservation and recovery act (40 CFR 261). Dispose of in accordance with local, state and federal regulations.

14. Transportation Information

US DOT Information - No Classification assigned.
Shipping Name: Non-Regulated Material
UN Number: NA
Shipping Label: NA

15. Regulatory Information

U.S. Federal Regulations

SARA/TITLE III - Toxic chemicals list 40 CFR Part 372.65

This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of SARA and 40 CFR Part 372 annual release reporting: **None**

U.S. State Regulations

California Prop 65: WARNING! This product does contain ingredients which are known to the state of California to cause, cancer, birth defects, or other reproductive harm. Crystalline Silica (Quartz) CAS # 14808-60-7 and Crystalline Silica (Cristobalite) CAS # 14464-46-1.

16. Other Information

The information in this Safety Data Sheet (SDS) was obtained from sources which we believe are reliable; however, the information is provided without any representation or warranty, expressed or implied, regarding the accuracy or correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use, or disposal of this product.

Key/Legend

OSHA	Occupational Safety and Health Administration	**TLV**	Threshold Limit Value
NFPA	National Fire Protection Association	**STEL**	Short-Term Exposure Limit
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act	**RCRA**	Resource Conservation and Recovery Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	**ACGIH**	American Conference of Governmental Industrial Hygienists
SARA	Superfund Authorization and Reauthorization Act	**NIOSH**	National Institute of Occupational Safety and Health
PEL	Permissible Exposure Limit	**TSCA**	Toxic Substances Control Act
DOT	Department of Transportation	**IARC**	International Agency for Research on Cancer
NTP	National Toxicology Program	**IBC**	International Building Code
CFR	Code of Federal Regulations	**mg/m3**	Milligrams per cubic meter
CWA	Clean Water Act	**CAA**	Clean Air Act
CAS	Chemical Abstracts Service		