

MATERIAL SAFETY DATA SHEET



RED DIAMOND RBI CONDITIONER

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Red Diamond RBI Conditioner

Product use: Soil Amendment

Product Advantages: Calcined clay results in unrivaled surface coloration and improved surface performance. Kiln-firing and mechanical sizing processes transform a unique blend of 100% natural clays into calcined clay, which encourages field drainage and air retention properties of skinned and turf areas. This allows for quicker field turnaround after rain delays, improving surface playability, stability, and safety. Moltan's Quantum products promote superior appearance and performance of recreational turf surfaces.

Company Identification: Moltan Company.
7125 Riverdale Bend Road
Memphis, Tennessee
800.264.5826 or 901-755-5666 (For Product Information)
901.757.0546 fax
www.moltan.com

2. COMPOSITION / INFORMATION ON INGREDIENTS:

| <u>Chemical Name</u> | <u>Percent</u> | <u>CAS Number</u> | <u>ACGIH TLV</u> | <u>OSHA PEL</u> |
|-----------------------------------|-----------------------|--------------------------|-------------------------|---|
| Montmorillonite Clay, Calcined | 87 - 90% | 70892-59-0 | 10 mg/m ³ | 5 mg/m ³ |
| Crystalline Silica (Quartz) | 7 - 10% | 14808-60-7 | 0.1 mg/m ³ | 5 mg/m ³ /%SiO ₂ +2 |
| Crystalline Silica (Cristobalite) | <3% | 14464-46-1 | 0.05 mg/m ³ | 5 mg/m ³ /%SiO ₂ +2 |

Note: This product contains sand, clay, and decomposed organic matter. The crystalline silica (quartz) content naturally varies depending on the composition of the soil. These materials are mined from the earth. Trace amounts of naturally occurring elements might be detected during chemical analysis of these materials.

California Prop 65: 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

HAZARDS DISCLOSURE: This product contains known hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200. As defined under Sara 311 and 312, this product contains known hazardous materials.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Warning! Product dust may cause eye, skin and respiratory irritation. This product contains crystalline silica, which is known to cause cancer, birth defects, or other reproductive harm to humans when exposed to levels above permissible levels.

NFPA Rating: Health - 1, Flammability - 0, Reactivity - 0
NFPA Definitions: (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme).

MATERIAL SAFETY DATA SHEET



Potential Health Effects:

Inhalation: This product may represent an inhalation hazard with creation of respirable dust.

Ingestion: Small quantities this product does not represent an ingestion hazard. Large quantities can cause intestinal distress.

Skin Contact: Dust maybe irritating to skin, abrasions and dry skin.

Eye Contact: Dust may cause irritation or inflammation.

Chronic Exposure: Risk of injury depends on duration and level of exposure. Prolonged or repeated inhalation of respirable crystalline silica at or above allowable occupational exposure limits may lead to the development of silicosis.

Aggravation of Pre-existing Conditions: Pre-existing skin and respiratory problems.

Carcinogenicity: Crystalline Silica is listed by the NTP, IARC, or regulated by OSHA as a carcinogen.

4. FIRST AID MEASURES

Inhalation: Remove to fresh air if exposed to large amounts of dust. Seek medical attention for discomfort or if coughing or other symptoms do not subside.

Ingestion: Do not induce vomiting. Seek medical attention or contact poison control center immediately.

Skin Contact: Wash thoroughly with soap and water. Seek medical attention for rash or irritation.

Eye Contact: Immediately flush eyes with large amounts of water for at least 15 minutes. Seek medical attention if irritation of blurred vision occurs.

5. FIRE FIGHTING MEASURES

Flash Point (PMCC): Not Flammable

Auto-ignition temperature: Not Applicable

Flammable limits in air % by volume: LEL: Not Applicable UEL: Not Applicable

Explosion: N/A

Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Special Fire Fighting Procedures: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

If uncontaminated, product can be reused. Avoid actions that cause dusts to become airborne. Avoid inhalation of dust. Do not wash product down sewage and drainage systems or into bodies of water.

7. HANDLING AND STORAGE

Storage Temperature (min/max): NA

Shelf Life: N/A

HANDLING (PERSONNEL): Handle in accordance with good hygiene and safety procedures.

STORAGE PRECAUTIONS: Store product separately from feed, food, pesticides and fertilizers so that cross contamination does not occur. Heat may be generated from a stockpile of product due to natural decomposition of organic materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Airborne Exposure Limits:

Airborne Exposure Limits Crystalline Silica (Quartz) Dust

OSHA PEL

ACGIH TLV

Respirable Fraction

5 mg/m³/%SiO₂+2

0.1 mg/m³

MATERIAL SAFETY DATA SHEET



Airborne Exposure Limits: Crystalline Silica (Cristobalite) Dust

| | | |
|---------------------|---|------------------------|
| | OSHA PEL | ACGIH TLV |
| Respirable Fraction | 5 mg/m ³ /%SiO ₂ +2 | 0.05 mg/m ³ |

Ventilation System: Always work in a well ventilated area.

Personal Respirators (NIOSH Approved): None required if dust is below permissible exposure levels.

Skin Protection: Observe good industrial hygiene practices.

Eye Protection: Always wear safety glasses when working with this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Solid

ODOR: Odorless

SOLUBILITY IN WATER: <2.0%

BOILING POINT: N/A

VISCOSITY: N/A

VAPOR DENSITY (Air=1): N/A

VOLATILE ORGANIC COMPOUNDS (VOC #/gal): N/A

COLOR: Reddish Brown

SPECIFIC GRAVITY: 2.2

MELTING/FREEZING POINT: N/A

EVAPORATION RATE (BuAc=1): N/A

AUTOIGNITION TEMPERATURE: N/A

VAPOR PRESSURE (mm Hg): N/A

10. STABILITY AND REACTIVITY

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: None

Hazardous Polymerization: Will not occur.

Incompatibilities: Unsaturated organic compounds, such as turpentine and vegetable oil, and hydrofluoric acid may react violently with the product.

Conditions to Avoid: Incompatible materials.

11. TOXICOLOGICAL INFORMATION

Toxicity Data:

This product contains sand, clay, and decomposed organic matter. The crystalline silica content naturally varies.

Cancer Lists

Ingredient

Crystalline Silica (Quartz)

Crystalline Silica (Cristobalite)

| | ---NTP Carcinogen--- | | |
|--------------|----------------------|----------------------|--|
| <u>Known</u> | <u>Anticipated</u> | <u>IARC Category</u> | |
| YES | YES | Group 1 | |
| YES | YES | Group 1 | |

12. ECOLOGICAL INFORMATION

Environmental Fate: No Data Available

Environmental Toxicity: No Data Available

13. DISPOSAL CONSIDERATIONS

Dispose of all materials in accordance with federal, state and local requirements.

14. TRANSPORTATION INFORMATION

MATERIAL SAFETY DATA SHEET



Domestic (Land, D.O.T.) International (Water, I.M.O. & Air, I.C.A.O.)
SHIPPING NAME: Non-Regulated Material

PRODUCT LABEL: NA UN NUMBER: N/A

15. REGULATORY INFORMATION

Federal, State & International Regulations

| Ingredient | <u>SARA 302</u> | | <u>List</u> | <u>-SARA 313-</u> | <u>CERCLA</u> | <u>RCRA</u> | <u>TSCA</u> |
|--------------------------------------|-----------------|------------|-------------|-------------------------|---------------|---------------|-------------|
| | <u>RQ</u> | <u>TPQ</u> | | <u>Chemical Catalog</u> | | <u>261.33</u> | <u>8(d)</u> |
| Montmorillonite Clay | NO | NO | NO | NO | NO | NO | NO |
| Crystalline Silica (Quartz) | NO | NO | NO | NO | NO | NO | NO |
| Crystalline Silica (Cristobalite) | NO | NO | NO | NO | NO | NO | NO |

Chemical Weapons Convention: No **TSCA 12(b):** No **CDTA:** No

SARA 311/312: Acute: YES; Chronic: YES; Fire: NO; Pressure: NO; Reactivity: NO (Mixture / Liquid)

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

Canada:

WHMIS: This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

Soil may be subject to WHMIS depending on the intended use and workers exposure. Product containing crystalline Silica is classified as D2A and is subject to WHMIS requirements.

This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA). This material or all of its components are listed on the Canadian Domestic Substances List (DSL). This material or all of its components are listed (or considered as having been notified) on the European Inventory of Existing Chemical Substances (EINECS). Other inventory lists: ENCS (Japan), Korea, Australia, China (Draft), PICCS (Philippines), Japan (ENCS).

16. OTHER INFORMATION

Prepared By: Paul Eigbrett; MSDS Authoring PLUS
Supersedes Date: December 15, 2009

Approval Date: October 06, 2010

This Material Safety Data Sheet (MSDS) has been reviewed to fully comply with the guidance contained in the ANSI MSDS standard (ANSI Z400.1-2004).

This information is furnished gratuitously and independent of the sales of the product without warranty, expressed or implied, except that it is accurate to the best knowledge of the Moltan Company. NO WARRANTY, EITHER EXPRESS OR IMPLIED, WHETHER OF MERCHANTABILITY OF FITNESS OF ANY NATURE OR OTHERWISE WITH RESPECT TO THE PRODUCT OR TO THE DATA HEREIN IS MADE HEREUNDER. The data in this Material Safety Data Sheet relates only to the specific material designated herein. It does not relate to use in combination with any other material or in any process.