SAFETY DATA SHEET

SECTION I. PRODUCT IDENTIFICATION

Product name:	Rhassoul Clay
Product ID:	32610
Product Use:	Various commercial and industrial uses
Company:	Buff City Soap
Company Address:	2716 Fairmount St, Dallas, TX 75201 USA
Company Phone:	+1 (844) 468-7627
Emergency Contact:	+1 (844) 468-7627

SECTION II.

HAZARD(S) IDENTIFICATION

GHS/Hazcom 2012 Classification:

Physical:	Health:	Environmental:
Not hazardous	Carcinogen Category 1A Specific Target Organ Toxicity (Repeated Exposure) Category 1	Not hazardous

GHS/Hazcom 2012 Label:

DANGER

Statement of Hazard

May cause cancer by inhalation.
Causes damage to lungs through prolonged or repeated exposure by inhalation

Response:

If exposed or concerned: Get medical advice.

Disposal:

Dispose of contents/containers in accordance with local regulation

Prevention

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust.
Do not eat, drink or smoke when using this product.
Wear protective gloves and safety glasses or goggles.
In case of inadequate ventilation wear respiratory protection.

SECTION III. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component	Percentage
1318-74-7	Kaolinite (Aluminum silicate) (Kaolin)	≤91%
14808-60-7	Crystalline Silica in the form of Quartz	≤45%
12001-26-2	Mica (Muscovite)	≤35%
1327-36-2	Chlorite (Aluminosilicate)	≤25%
68476-25-5	Feldspar	≤15%
13463-67-7	Titanium Dioxide	≤3%

This material contains trace amounts (parts per trillion) of naturally occurring polychlorinated dibenzodioxins ("PCDD"), including 2,3,7,8-tetrachlorodibenzo-p-dioxin ("TCDD").

SECTION IV. FIRST-AID MEASURES

Gross Inhalation: Remove victim to fresh air. If breathing has stopped, perform artificial respiration. If breathing is difficult have qualified personnel administer oxygen. Get prompt medical attention.

Skin Contact: No first aid should be needed since dermal contact with this product does not affect the skin. Wash exposed skin with soap and water before breaks and at the end of the shift.

Eye Contact: Flush the eyes immediately with large amounts of running water, lifting the upper and lower lids occasionally. If irritation persists or for imbedded foreign body, get immediate medical attention.

Ingestion: If large amounts are swallowed, get immediate medical attention.

Most Important symptoms and Effects, Both Acute and Delayed: May cause eye irritation with redness and tearing. Exposure to dust may cause mucous membrane and respiratory irritation, cough, sore throat, nasal congestion, sneezing and shortness of breath. However, there may be no immediate signs or symptoms of exposure to hazardous concentrations of respirable crystalline silica (quartz).

Indication of immediate medical attention and Special Treatment Needed: None required.

SECTION V. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: This product will not burn but is compatible with all extinguishing media. Use any media that is appropriate for the surrounding fire.

Specific Hazards Arising from the Chemical:

Unusual Fire and Explosion Hazards: Not flammable or combustible. Dry powders may accumulate static charge in handling which can be a source of ignition for flammable atmospheres.
Hazardous Combustion Products: None

Special Protective Equipment and Precautions for Fire-Fighting: None required with respect to this product. Firefighters should always wear self-contained breathing apparatus for fires indoors or in confined areas.

SECTION VI. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate protective equipment.

Environmental Precautions: Report spills and releases as required to appropriate authorities.

Methods and Material for Containment/Cleanup: If uncontaminated, collect using dustless method (HEPA vacuum or wet method) and place in appropriate container for use. If contaminated: a) use appropriate method for the nature of contamination, and b) consider possible toxic or fire hazards associated with the contaminating substances. Collect for appropriate disposal.

SECTION VII. HANDLING AND STORAGE

Precautions for Safe Handling: Do not breathe dist. Do not rely on your sight to determine if dust is in the air. Silica may be in the air without a visible dust cloud. Use normal precautions against bag breakage or spills of bulk material. Avoid creation of respirable dust. Use good housekeeping in storage and use areas to prevent accumulation of dust in work area.

To reduce the risk of developing silicosis, lung cancer and other adverse effects, the ACGIH recommends that the industrial hygienist use every means available to keep exposure below the recommended TLV. NIOSH recommends reducing airborne exposure levels as low as possible below NIOSH's recommended exposure limit, substituting less hazardous materials when feasible, using appropriate respiratory protection when source controls cannot keep exposures below the recommended limit and making medical examinations available to exposed workers.

Use adequate ventilation and dust collection. To minimize exposure, wear a respirator approved for silica dust when using, handling, storing or disposing of this product or bag. Refer to the most recent government and local regulations when selecting a respirator. Maintain, clean and fit test respirators in accordance with the most recent government and local regulations. Maintain and test ventilation and dust collection equipment. Launder clothing that has become dusty. Empty containers (bags, bulk containers, storage tanks, etc.) retain silica reside and must be handled in accordance with the provisions of this Material

Safety Data Sheet. WARN and TRAIN employees in accordance with state and federal regulations.

WARN YOUR EMPLOYEES (AND YOUR CUSTOMERS AND USERS IN CASE OF RESALE) BY POSTING, AND OTHER MEANS, OF THE HAZARDS AND OSHA AND ANY OTHER APPLICABLE REGULATORY PRECAUTIONS TO BE USED, PROVIDE TRAINING FOR YOUR EMPLOYEES ABOUT OSHA PRECAUTIONS.

Dust can accumulate electrostatic charges due to friction from transfer and mixing operations and cause an electrical spark (ignition source) which can ignite flammable liquids and atmospheres. Provide adequate precautions when adding this product to flammable and combustible mixtures like paints and coating, such as electrical grounding and bonding, inert atmosphere or non-sparking tools. However, bonding and grounds may not eliminate the hazard for static accumulation.

Conditions for Safe Storage, Including any Incompatibilities: Store in a dry location.

SECTION VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Quartz: OSHA PEL and MSHA Exposure Limit for Crystalline Silica, Quartz — $\underline{10\ mg/m^3}$ / % Silica +2
(Respirable measured as an 8-hour TWA)
TLV – 0.025 mg/m^3 8-hour TWA (respirable fraction)

Kaolinite (Aluminum Silicate):
PEL – 5 mg/m^3 TWA (respirable fraction)
PEL – 15 mg/m^3 (total dust)
TLV – 1 mg/m^3 TWA (respirable fraction)
MSHA – 20 mppcfa TWA (respirable fraction)

Mica:
PEL – 20 mppcfa TWA (respirable fraction)
TLV – 3 mg/m^3 TWA (respirable fraction)
MSHA – 20 mppcfa TWA (respirable fraction)

Chlorite:
PEL – 5 mg/m^3 TWA (respirable fraction), 15 mg/m^3 TWA (total dust as Particulate not otherwise Classified
TLV – None established (refer to ACGIH guidelines for Particulates (insoluble or poorly soluble) Not Otherwise Specified)
MSHA – 10 mg/m^3 TWA as Particulates Not Otherwise Classified

Feldspar:
PEL – 5 mg/m^3 TWA (respirable fraction, 15 mg/m^3 TWA (total dust) as Particulates not Otherwise Classified
TLV – None established (refer to ACGIH guidelines for Particulates (insoluble or poorly soluble) Not Otherwise Specified)
MSHA – 10 mg/m^3 TWA as Particulates Not Otherwise Classified

Titanium Dioxide: PEL – 15 mg/m^3 TWA (total dust)

MSHA – 15 mg/m^3 TWA (total dust)

Crystalline silica exists in several forms, the most common of which are quartz (i.e., this product), trydimite and cristobalite, with quartz being the most common form found in nature. If quarta is heated to more than 870^{o}C, it can change form to trydimite and if quartz is heated to more than 1450^{o}C, it can change form the cristobalite.

Appropriate Engineering Controls: Use local exhaust as required to maintain exposures as far as possible below applicable occupational exposure limits. Control of exposure to dust must be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general or local exhaust ventilation and substitution of less toxic materials).

Personal Protective Equipment:
Respiratory Protection: when effective engineering controls are not feasible, or while they are being implemented, appropriate respiratory protection must be used. Use appropriate respiratory protection for respirable particulates based on consideration of airborne workspace concentrations and duration of exposure arising from intended end use. Refer to the most recent government and local standards.

Gloves: Protective gloves recommended.

Eye Protection: Safety glasses or goggles recommended.

Other Protective Equipment/Clothing: As appropriate for the work environment. Dusty clothing should be laundered before reuse.

SECTION IX. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Solid	**Appearance:**	Cream to buff colored powder
Viscosity:	Not applicable	**Odor:**	Earthy odor
pH:	5-9% (in a 5% slurry)	**Odor Threshold:**	Not applicable
Boiling Pont/Range:	Not applicable	**Vapor Density:**	Not applicable
Melting point/freezing point:	Not applicable	**Evaporation Rate:**	Not applicable
Flammability (solid, gas):	Fully oxidized,will not burn	**Partition coefficient (a-octanol/water):**	Not applicable
Decomposition Temperature:	Not applicable	**Vapor Pressure:**	Not applicable
Flash Point:	Not applicable	**Relative Density:**	2.6-2.7
Lower Explosion Limit:	Not applicable	**Solubilities:**	Negligible in water
Upper Explosion Limit:	Not applicable	**Autoignition Temperature:**	Will not burn

SECTION X. STABILITY AND REACTIVITY

Reactivity: This product is not reactive under normal conditions of storage and use.
Chemical Stability: This product is stable at normal temperatures.
Possibility of Hazardous Reactions: None known.

Conditions to Avoid: None known.
Incompatible Materials: Powerful oxidizing agents such as fluorine, chlorine trifluoride, manganese trioxide, etc.
Hazardous Decomposition Products: Silica will dissolve in hydrofluoric acid producing a corrosive gas, silicon tetrafluoride.

SECTION XI. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Potential Health Effects:

Inhalation: Breathing silica dust may not cause noticeable injury or illness even though permanent lung damage may be occurring. Inhalation of dust may have serious chronic effects (see below Repeat dose Toxicity).

Skin Contact: No adverse effects expected.

Eye Contact: Contact may cause mechanical irritation and possible injury.

Ingestion: No adverse effects expected for normal, incidental ingestion.

Chronic Health Effects: See Repeat Dose Toxicity below with respect to silicosis, cancer status and other date with possible relevance to human health.

Signs and Symptoms of Exposure: Exposure to dust may cause mucous membrane and respiratory irritation, cough, sore throat, nasal congestion, sneezing and shortness of breath. However, there may be no immediate signs or symptoms of exposure to hazardous concentrations of respirable crystalline silica (quartz). See Repeat Dose Toxicity below for symptoms of silicosis. The absence of symptoms is not necessarily indicative of safe conditions.

Acute Toxicity Values: Silica: LD50 oral rat >22,500 mg/kg.
Titanium Dioxide: LD50 oral rat >12,000 mg/kg.

Skin Sensitization: Not a skin sensitizer in animals or humans.

Repeated Dose Toxicity:

Silicosis: Excessive inhalation of respirable crystalline silica dust may cause a progressive, disabling and sometimes fatal lung disease called silicosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function. This disease is exacerbated by smoking. Individuals with silicosis are predisposed to develop mycobaterial infections (tuberculosis and non-tuberculosis) and fungal infections. Inhalation of air with a very high concentration of respirable silica dust can cause the most serious forms of silicosis in a matter of months or a few years. Some epidemiological studies have

concluded that there is significant risk of developing silicosis even at airborne exposure levels that are equal to the recommended NIOSH REL, and ACGIH TLV.

Pneumoconiosis: Excessive inhalation of respirable kaolin dust or mica dust may cause pneumoconiosis, a respiratory disease, which can result in delay, progressive, disabling and sometimes fatal lung injury. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness, and reduced pulmonary function. This disease is exacerbated by smoking. Individuals with pneumoconiosis are predisposed to develop tuberculosis.

Other Data with Possible Relevance to Human Health:

There is some evidence that breathing respirable crystalline silica or the disease silicosis is associated with an increased incidence of significant disease endpoint such as scleroderma (an immune system disorder manifested by fibrosis of the lungs, skin and other internal organs) rheumatoid arthritis, systemic lupus, erythematosus, sarcoidosis, chronic bronchitis, chronic obstructive pulmonary disease (COPD), emphysema, chronic kidney disease and end-stage renal disease.

The material contains trace amounts (parts per trillion) of naturally occurring dioxin congeners including TCDD. 2,3,7,8- TCDD has been classified as a known human carcinogen by the U.S. National Toxicological Program in its Tenth Annual Report, by the IARC in Monograph 69 (1997), and by the State of California in its Proposition 65 list of chemicals known to cause cancer and developmental toxicity. The regulatory limit for TCDD in drinking water and bottled water is 3×10^{-8} milligram per liter of water (0.03 ppt). NIOSH has recommended that the exposure limit of TCDD be the lowest feasible concentration. OSHA regulates TCDD under the Hazard Communication Standard. In 1998, the World Health Organization set a lifetime tolerable daily intake for dioxin congeners using the toxicity equivalent factors to convert each dioxin congener into the equivalent concentration of TCDD ("TEQs") of 1 – 4 TEQ picograms per kilogram of body weight (for dioxins and dioxin-like compounds), based on the view that below this threshold level of exposure no adverse health impacts are likely to occur. Exposure is the amount of a chemical that actual enters the body and is not the same as concentrations in soil or on dust particles. WHO emphasized that occasional short-term excursions above the total daily intake would have no health consequences provided that the average intake over long periods is not exceeded. Furthermore, in an Investigative Report, MSHA has determined that clay miners' risk of harmful exposure to naturally occurring trace amounts of 2,3,7,8 TCDD by inhalation or ingestion or both is very low. (See U.S. Dept. of Labor, Mine Safety and Health Administration, Investigative Report PP-004-98M, December 18, 1997.) EPA dioxin soil cleanup guidance states that exposure of workers at an industrial site to soil containing 20 ppb or less of total dioxin toxicity equivalents should be safe.

Carcinogenicity: The International Agency for Research on Cancer has determined that crystalline silica is carcinogenic to humans (Group 1 – carcinogenic to humans). Refer to IARC Monograph 100C, A Review of Human Carcinogens: Arsenic, Fibres, and Dusts (published in 2011) in conjunction with the use of these materials. The National Toxicology Program classifies respirable crystalline silica as "known to be a human carcinogen". Refer to Twelfth Report on Carcinogens (2011). The American Conference of Governmental Industrial Hygienists (ACGIH) classifies crystalline silica, quartz, as a suspected human carcinogen (A2).

Developmental/Reproductive Toxicity: No specific data is available, however, there is no evidence that silica exposure has any effect on reproduction.

Genetic Toxicity: No specific data is available, however, there is no evidence that silica is a germ cell mutagen.

SECTION XII. ECOLOGICAL INFORMATION

Toxicity: Practically non-toxic to aquatic organisms. Silica: LC50 carp >10,000 mg/L/72 hr.

Persistence and Degradability: Silica is not degradable.

Bioaccumulative Potential: Not expected to bioaccumulate.

Mobility in Soil: Not applicable.

Results of PBT and vPvB Assessment: None required

Other Adverse Effects: None known.

SECTION XIII. DISPOSAL CONSIDERATIONS

Water Treatment Methods:
If uncontaminated, dispose as an inert, non-metallic mineral. If contaminated, dispose in accordance with all applicable local, state/provincial and national/federal regulations in light of the contamination present. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

SECTION XIV. TRANSPORT INFORMATION

Not regulated for transportation under IATA/ICAO, IMDG, US DOT, EU ADR, or Canadian TDG Regulations. Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: None.

SECTION XV. REGULATORY INFORMATION

SARA 311/312: Hazard Categories for SARA Section 311/312 Reporting: Chronic Health

SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements under the SARA Section 313 (40 CFR 372): None

CERCLA Section 103 Reporting Quantity: None

California Proposition 65: This product contains crystalline silica (respirable) and titanium dioxide which are known to the State of California to cause cancer. This product also contains trace amounts of TCDD dioxin which is listed as a chemical known to the State of California to cause cancer.

Toxic Substances Control Act: All of the components of this product are listed on the EPA TC Inventory or exempt from premanufacture notification requirements.

Canadian Environmental Protection Act: All the components of this product are listed on the Canadian Domestic Substances List or exempt from notification requirements.

Canadian WHMIS Classification: Class D, Division 2, Subdivision A (Very Toxic Material causing other Toxic Effects)

This SDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the SDS contains all of the information required by the CPR.

Japan METI: All of the components of this product are existing chemical substances as defined in the Chemical Substance Control Law.

Australian Inventory of Chemical Substances: All of the components of this product are listed on the AICS inventory or exempt from notification requirements.

Korea: All of the components of this product are listed on the ECL inventory or exempt from notification requirements.

Philippines: All of the components of this product are listed on the PICCS inventory or exempt from notification requirements.

New Zealand: All of the components of this product are listed on the HSNO inventory or exempt from notification requirements.

China: All of the components of this product are listed on the IECSC inventory or exempt from notification requirements.

Taiwan: All of the components of this product are listed on the CSNNN inventory or exempt from notification requirements.

SECTION XVI. OTHER INFORMATION

NFPA Hazard Rating: Health: 1 Fire: 0 Reactivity: 0
HMIS Hazard Rating: Health: * Fire: 0 Reactivity: 0
*Warning – Chronic health effect possible – inhalation of silica dust may cause lung injury/disease (silicosis). Take appropriate measures to avoid breathing dust. See Section III.

SDS Date of Preparation/Revision: April 2014

Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

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