


**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT IDENTIFIER	Marbet 816 Mule Mix Conditioner
CHEMICAL NAME	Montmorillonite Clay, Calcined
CHEMICAL FAMILY	Clay
MATERIAL USE	Soil Amendment
RESTRICTION ON USE	None Known
MANUFACTURER	EP Minerals, LLC., 9875 Gateway Dr., Reno, NV 89521
TELEPHONE NO.	(775) 824 7600 (Monday – Friday 8:00 am PST – 5:00 pm PST)
EMERGENCY TELEPHONE NO.	(775) 824 7600 (Monday – Friday 8:00 am PST – 5:00 pm PST)
SDS DATE OF PREPARATION	January 28, 2014

**SECTION 2: HAZARDS IDENTIFICATION**

OSHA GHS HAZARD CLASSIFICATION	Carcinogen Category 1A Specific Target Organ Toxicity, Repeated Exposure Category 1
HAZARDS NOT OTHERWISE CLASSIFIED	None
LABEL ELEMENTS	<p>DANGER May cause cancer by inhalation. Causes damage to lungs through prolonged or repeated exposure. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wear eye protection. If exposed or concerned: Get medical advice. Dispose of contents in accordance with local, state and federal regulations.</p> 

**SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

INGREDIENT IDENTIFICATION	APPROXIMATE CONCENTRATION (%)	C.A.S. NUMBERS
Montmorillonite Clay, Calcined (contains 10-15% Crystalline Silica - Quartz)	100%	70892-59-0 14808-60-7

**SECTION 4: FIRST AID MEASURES**

EYE	Flush eyes with generous quantities of water or eye rinse solution. Consult physician if irritation persists.
SKIN	Use moisture renewing lotions if dryness occurs.
INGESTION	Drink generous amounts of water to reduce bulk and drying effects.
INHALATION	Remove to fresh air. Blow nose to evacuate dust.
Most important symptoms/effects, acute and delayed	Dust may cause abrasive irritation to eyes. Prolonged skin contact may cause dryness. Dust may cause nose, throat and upper respiratory tract irritation. Prolonged inhalation of respirable dust containing silica may cause a progressive lung disease, silicosis and lung cancer. See Section 11 for additional information.
Indication of immediate medical attention and special treatment, if necessary	Immediate medical attention is not normally required. If dust irritates the eyes, seek medical attention.

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## SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA	Not applicable, the material is not combustible.
SPECIFIC HAZARDS ARISING FROM THE CHEMICAL	Not applicable, the material is not combustible.
SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS	Not applicable, the material is not combustible.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	If dust is present, use respirator fitted with particulate filter as specified in Section 8. Protect eyes with goggles. Do not breathe dust.
ENVIRONMENTAL PRECAUTIONS	This material is not a significant environmental concern.
METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP	Vacuum clean spillage or wet sweep. Avoid creating airborne dust. Place in a container for use or disposal.

## SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING	Minimize dust generation. Avoid contact with eyes. Do not breathe dust. Repair or dispose of broken bags. Observe all label precautions and warnings. Flammable or hazardous substances may retain such characteristics after absorption. Care should be taken to store and dispose of waste material in accordance with instructions of manufacturer of substance absorbed and applicable laws. Do not use with hydrofluoric acid or concentrated caustic solutions.
CONDITIONS FOR SAFE STORAGE	Store in a dry place to maintain packaging integrity and product quality. Store product separately from feed, food, pesticides and fertilizers so that cross contaminations does not occur. Do not store near hydrofluoric acid or concentrated caustic solutions.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>EXPOSURE GUIDELINES:</b>				
Component	OSHA PEL	ACGIH TLV	MSHA PEL	NIOSH REL
Montmorillonite Clay, Calcined (as Particulates not otherwise classified)	5 mg/m <sup>3</sup> respirable dust 15 mg/m <sup>3</sup> total dust	None Established	5 mg/m <sup>3</sup> respirable dust 15 mg/m <sup>3</sup> total dust	None Established
Crystalline Silica (Quartz)	30 mg/m <sup>3</sup> % SiO <sub>2</sub> +2 total dust	0.025 mg/ m <sup>3</sup> Respirable dust	30 mg/m <sup>3</sup> % SiO <sub>2</sub> +2 total dust	0.05 mg/ m <sup>3</sup> Respirable dust
	10 mg/m <sup>3</sup> % SiO <sub>2</sub> +2 Respirable dust		10 mg/m <sup>3</sup> % SiO <sub>2</sub> +2 Respirable dust	
<b>ENGINEERING CONTROLS</b>	Use general or local exhaust ventilation to control dust within recommended exposure limits. Refer to ACGIH publication "Industrial Ventilation" or similar publications for design of ventilation systems.			
<b>PERSONAL PROTECTIVE EQUIPMENT:</b>				
<b>EYE / FACE PROTECTION</b>	Goggles to protect from dust			
<b>SKIN PROTECTION</b>	No special equipment is needed.			
<b>RESPIRATORY PROTECTION</b>	Respirators fitted with filters certified to standard 42CFR84 under series N95 should be worn when dust is present. If the dust concentration is less than ten (10) times the Permissible Exposure Limit (PEL) use a quarter or half-mask respirator with a N95 dust filter or a single use dust mask rated N95. If dust concentration is greater than ten (10) times and less than fifty (50) times the PEL, a full-face piece respirator fitted with replaceable N95 filters is recommended. If dust concentration is greater than fifty (50) and less than two hundred (200) times the PEL use a power air-purifying (positive pressure) respirator with a replaceable N95 filter. If dust concentration is greater than two hundred (200) times the PEL use a type C, supplied air respirator (continuous flow, positive pressure), with full face piece, hood or helmet.			
<b>GENERAL HYGIENE</b>	Avoid breathing dust. Avoid contact with eyes. Wash hands after handling and before eating or drinking.			

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE, COLOR</b>	Reddish Brown granules	<b>ODOR</b>	Odorless
<b>PHYSICAL STATE</b>	Solid	<b>ODOR THRESHOLD</b>	Not applicable
<b>VAPOR PRESSURE</b>	Not applicable	<b>VAPOR DENSITY</b>	Not applicable
<b>BOILING POINT</b>	Not applicable	<b>MELTING POINT</b>	Unknown
<b>FLASH POINT</b>	Not applicable	<b>pH (10% SUSPENSION)</b>	Unknown
<b>FLAMMABILITY LIMITS</b>	Not applicable	<b>EVAPORATION RATE</b>	Not applicable
<b>DECOMPOSITION TEMPERATURE</b>	Unknown	<b>SPEC. GRAVITY / RELATIVE DENSITY</b>	2.2
<b>AUTOIGNITION TEMPERATURE</b>	Not applicable	<b>PARTITION COEFFICIENT – n-OCTANOL/WATER</b>	Not applicable
<b>FLAMMABILITY (solid/gas)</b>	Not applicable	<b>SOLUBILITY – WATER</b>	< 2%
		<b>VISCOSITY</b>	Not applicable

## SECTION 10: STABILITY AND REACTIVITY

<b>REACTIVITY</b>	Material is not reactive.
<b>CHEMICAL STABILITY</b>	Material is stable.
<b>POSSIBILITY OF HAZARDOUS REACTIONS</b>	Material is not reactive under normal conditions of handling unless mixed with incompatible substances below.
<b>CONDITIONS TO AVOID</b>	Not applicable
<b>INCOMPATIBLE MATERIALS</b>	Unsaturated organic compounds, such as turpentine and vegetable oil, hydrofluoric acid and concentrated caustic solutions may react violently with the product.
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	Not applicable

## SECTION 11: TOXICOLOGICAL INFORMATION

<b>POTENTIAL HEALTH EFFECTS</b>	
<b>Likely Routes of Exposure</b>	See below
<b>EYE</b>	May cause irritation (tear formation and redness) if dust gets in eyes.
<b>SKIN</b>	Not absorbed by the skin, but may cause dryness if prolonged exposure.
<b>INGESTION</b>	Ingestion of small quantities is not considered harmful, but may cause irritation of the mouth, throat and stomach.
<b>INHALATION</b>	Acute inhalation can cause dryness of the nasal passage and lung congestion, coughing and general throat irritation. Acute inhalation of high concentrations of respirable crystalline silica may cause acute silicosis.
<b>CHRONIC EFFECTS</b>	This product contains naturally occurring crystalline silica. Respirable crystalline silica may cause lung cancer and lung disease (silicosis) if inhaled for prolonged periods. Symptoms of silicosis include wheezing, cough and shortness of breath.
<b>CARCINOGENICITY</b>	This natural product is composed predominantly of clay, but contains some crystalline silica. Respirable crystalline silica (quartz) is classified by IARC and NTP as a known human carcinogen. Crystalline silica is only known to cause cancer when inhaled in a respirable form. It is not known to cause cancer by any other route of exposure.
<b>NTP</b>	Respirable crystalline silica (quartz) is classified as a known human carcinogen.
<b>IARC</b>	Respirable crystalline silica (quartz) is classified as a known human carcinogen.
<b>NUMERICAL MEASURES OF TOXICITY</b>	No data available

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<b>CORROSIVENESS, SENSITIZATION, IRRITANCY</b>	Not applicable							
<b>REPRODUCTIVE TOXICITY</b>	Not available							
<b>TERATOGENICITY, MUTAGENICITY</b>	Not available							
<b>SECTION 12: ECOLOGICAL INFORMATION</b>								
<b>ECOTOXICITY:</b>	No toxicity is expected							
<b>PERSISTENCE AND DEGRADABILITY</b>	Non-biodegradable, inert.							
<b>BIOACCUMULATIVE POTENTIAL</b>	Little potential for bioaccumulation							
<b>MOBILITY IN SOIL</b>	No mobility							
<b>OTHER ADVERSE EFFECTS</b>	None known							
<b>SECTION 13: DISPOSAL CONSIDERATIONS</b>								
<b>WASTE DISPOSAL</b>	If this material as supplied becomes a waste, use solid waste disposal common to landfill type operations or in slurry to sumps. Not considered a hazardous waste under RCRA (40CFR Part 261).							
<b>PACKAGING DISPOSAL</b>	Dispose of in accordance with applicable laws and regulations, typically solid waste disposal common to landfill type operations.							
<b>SECTION 14: TRANSPORT INFORMATION</b>								
<b>BASIC SHIPPING INFORMATION</b>	DOT shipping classification 55 (no restrictions). Technical name is "Calcined Clay".							
<b>ADDITIONAL INFORMATION</b>	No special requirements or placarding necessary.							
<b>SECTION 15: REGULATORY INFORMATION</b>								
<b>U.S. FEDERAL:</b>								
<b>TSCA</b>	Montmorillonite and Quartz appear on the EPA TSCA inventory list.							
<b>CERCLA</b>	Montmorillonite is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR 302.							
<b>SARA TITLE III</b>	Not listed.							
<b>California Proposition 65:</b>	This product contains crystalline silica, a chemical known to the State of California to cause cancer.							
<b>INTERNATIONAL:</b>								
<b>WHMIS Classification</b>	Class D-2-A							
<b>WHMIS Ingredient Disclosure List</b>	Silica, crystalline, quartz							
<b>SECTION 16: OTHER INFORMATION</b>								
			<table border="1"> <tr> <td rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">HMIS</td> <td>0* Health</td> </tr> <tr> <td>0 Flammability</td> </tr> <tr> <td>0 Reactivity</td> </tr> <tr> <td>E Protective Equipment</td> </tr> </table>	HMIS	0* Health	0 Flammability	0 Reactivity	E Protective Equipment
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<b>ORIGINAL ISSUE DATE</b>	January 14, 2014							
<b>REVISION DATE</b>	October 28, 2014							
<b>REVISION NO.</b>	2							

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