


**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT IDENTIFIER	AXIS® Ceramic - CC
CHEMICAL NAME	Montmorillonite Clay, Calcined
CHEMICAL FAMILY	Clay
MATERIAL USE	Soil Amendment
RESTRICTION ON USE	None Known
MANUFACTURER	EP Minerals, LLC., 9785 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 21, 2022

**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><b>DANGER</b>            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

EXPOSURE GUIDELINES:	Note: Processing of sorptive clays is not covered by the OSHA Silica Standard (29CFR1910.1053) and the OSHA PEL associated with that standard.			
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)	$\frac{30 \text{ mg/m}^3}{\% \text{ SiO}_2+2}$ total dust  $\frac{10 \text{ mg/m}^3}{\% \text{ SiO}_2+2}$ Respirable dust	0.025 mg/ m <sup>3</sup> Respirable dust	$\frac{30 \text{ mg/m}^3}{\% \text{ SiO}_2+2}$ total dust  $\frac{10 \text{ mg/m}^3}{\% \text{ SiO}_2+2}$ Respirable dust	0.05 mg/ m <sup>3</sup> Respirable dust
ENGINEERING CONTROLS	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.			
PERSONAL PROTECTIVE EQUIPMENT:				
EYE / FACE PROTECTION	Goggles to protect from dust			
SKIN PROTECTION	No special equipment is needed.			
RESPIRATORY PROTECTION	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.			
GENERAL HYGIENE	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

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

## SECTION 10: STABILITY AND REACTIVITY

REACTIVITY	Material is not reactive.
CHEMICAL STABILITY	Material is stable.
POSSIBILITY OF HAZARDOUS REACTIONS	Material is not reactive under normal conditions of handling unless mixed with incompatible substances below.
CONDITIONS TO AVOID	Not applicable
INCOMPATIBLE MATERIALS	Unsaturated organic compounds, such as turpentine and vegetable oil. Do not use with hydrofluoric acid or strongly basic solutions.
HAZARDOUS DECOMPOSITION PRODUCTS	Not applicable

## SECTION 11: TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS	
Likely Routes of Exposure	See below
EYE	May cause irritation (tear formation and redness) if dust gets in eyes.
SKIN	Not absorbed by the skin, but may cause dryness if prolonged exposure.
INGESTION	Ingestion of small quantities is not considered harmful, but may cause irritation of the mouth, throat and stomach.
INHALATION	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.
CHRONIC EFFECTS	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.
CARCINOGENICITY	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.
NTP	Respirable crystalline silica (quartz) is classified as a known human carcinogen.
IARC	Respirable crystalline silica (quartz) is classified as a known human carcinogen.
NUMERICAL MEASURES OF TOXICITY	No data available

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CORROSIVENESS, SENSITIZATION, IRRITANCY	Not applicable		
REPRODUCTIVE TOXICITY	Not available		
TERATOGENICITY, MUTAGENICITY	Not available		
<b>SECTION 12: ECOLOGICAL INFORMATION</b>			
ECOTOXICITY:	No toxicity is expected		
PERSISTENCE AND DEGRADABILITY	Non-biodegradable, inert.		
BIOACCUMULATIVE POTENTIAL	Little potential for bioaccumulation		
MOBILITY IN SOIL	No mobility		
OTHER ADVERSE EFFECTS	None known		
<b>SECTION 13: DISPOSAL CONSIDERATIONS</b>			
WASTE DISPOSAL	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).		
PACKAGING DISPOSAL	Dispose of in accordance with applicable laws and regulations, typically solid waste disposal common to landfill type operations.		
<b>SECTION 14: TRANSPORT INFORMATION</b>			
BASIC SHIPPING INFORMATION	DOT shipping classification 55 (no restrictions). Technical name is "Calcined Clay".		
ADDITIONAL INFORMATION	No special requirements or placarding necessary.		
<b>SECTION 15: REGULATORY INFORMATION</b>			
U.S. FEDERAL:			
TSCA	Montmorillonite and Quartz appear on the EPA TSCA inventory list.		
CERCLA	Montmorillonite is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR 302.		
SARA TITLE III	Not listed.		
California Proposition 65:	⚠ <b>WARNING:</b> This product can expose you to crystalline silica, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> .		
<b>SECTION 16: OTHER INFORMATION</b>			
	 <p>NFPA</p> <p>4-Extreme 3-High 2-Moderate 1-Slight 0-Insignificant</p>	 <p>HMIS</p> <p>0* Health 0 Flammability 0 Reactivity E Protective Equipment</p>	
REVISION DATE	January 21, 2022		
REVISION NO.	4		

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