Safety Data Sheet (SDS)

Section 1 - Identification

Product Name	Aurora Moist Clay
Common Names	Moist Clays, Wet Clays
Manufacturer	Highwater Clays, Inc. 600 Riverside Drive. Asheville, NC 28801 clay@highwaterclays.com
Telephone	(828) 252-6033
Emergency Number	911
Product Use	Ceramic clay, pottery, ceramic building material

Section 2 - Hazardous Identification

Contains Crystalline Silica ≥ 1% Respirable*

Ingredient

Crystalline Silica (Quartz)
*Respirable when dry clay dust is generated.

GHS label elements/ Hazard pictograms

Signal word
Danger

OSHA/HCS status

Clay mixture in dry form is considered hazardous by the OSHA Communication Standard (29 CFR 1910.1200**)**

Classification of the substance or mixture

Carcinogenicity (inhalation) – Category 1A and Specific organ toxicity **(**repeated exposure) (respiratory tract through inhalation) – Category 1

Hazard statement

(H350) Cancer Hazard. Contains quartz (crystalline silica), which may cause cancer. Risk of cancer depends upon duration and level of exposure to the dust. Not an acute hazard.
(H332) Prolonged inhalation of dust may cause lung injury. Inhalation of high concentrations of dust may cause mechanical irritation and discomfort of the respiratory tract. Repeated exposure may have chronic effects.
(H316 + H320 + H335) Can cause skin, respiratory, and eye irritation.

Precautionary statement

(P261) Avoid breathing dust.
(P280) Wear protective gloves, eye, and respiratory protection.

Section 3 - Composition / Information on Ingredients

Substances/Mixture Mixture - A trade secret claim is made for this product.

Ingredients	CAS #	Approx % by Weight
Kaolin/Clay	1332-58-7	10-50%
Crystalline Silica (Quartz)	14808-60-7	0-30%
Feldspar	68476-25-5	0-30%

Section 4 - First Aid Measures

Description of First-Aid Measures

Eye contact Flush eyes with plenty of water. If irritation persists, seek medical attention.

Skin contact Wash thoroughly with water. If irritation persists, seek medical attention.

Inhalation Wet clay does not present an inhalation hazard. Do not allow clay to dry out. Do not create dust.

Ingestion Consult physician and/or obtain competent medical assistance.

Symptoms and Effects, Both Acute and Delayed

Eye contact Prolonged contact with large amounts of dry clay dust may cause mechanical irritation.

Skin contact Prolonged contact with large amounts of clay may cause mechanical irritation.

Inhalation Inhalation of high concentrations of dry clay dust may cause mechanical irritation. Long-term exposure may cause chronic effects. Do not create dust.

Ingestion Ingestion of large quantities of clay may cause gastrointestinal irritation.

Chronic symptoms Repeated or prolonged exposure to respirable crystalline silica in the dry clay dust may cause lung damage in the form of silicosis. Symptoms include shortness of breath, fever, fatigue, loss of appetite, chest pain, dry non-productive cough.

Section 5 - Fire Fighting Measures

General fire hazards	Clay in moist or dry form is not flammable and does not represent fire hazard. The plastic bags and cardboard boxes containing the clay are flammable.
Extinguishing media	Use appropriate extinguishing media for surrounding fire.
Chemical hazards from fire	Clay in moist or dry form does not contain hazardous decomposition products.
Protective actions and equipment for fire-fighters	Clay mixture and packaging can become slippery when wet. Firefighters should wear appropriate protective equipment.

Section 6 - Accidental Release Measures

Clean-up methods	Clean up any wet spills and clay slop with a damp sponge. For dry spills, spray gently with water and use a damp sponge to clean up. Spritz floor and use a wet mop for general cleaning. Change mop water frequently. Wipe any remaining moisture with a towel and rinse the towel before it dries.
Personal precautions, protective equipment	Wet clean up only. Avoid creating dust. Wear appropriate protective equipment and clothing during clean up**.** Use NIOSH-approved respirators if dust levels exceed exposure limits.
Methods of containment	Do not sand bone-dry clay**.** Avoid dust generation by using gentle water spray to wet down dried clay. Use a damp sponge to clean up.

Section 7 - Handling and Storage

Precaution for safe handling and use	Use proper lifting techniques to avoid physical injury when moving clay packages or larger quantities of wet clay. To avoid dust generation, do not cut, saw, or sand bone-dry clay.
Conditions for safe storage	Dot not allow wet clay to dry out. Wet clean only. Store wet clay above freezing temperatures. Do not store below 32°F or 0°C.

Section 8 – Exposure Controls/Personal Protection

Airborne Exposure Limits

Airborne when dry clay dust is generated.

Ingredients	OSHA PEL/ACGIH TLV
Kaolin/Clay	5 mg/m3 / 2 mg/m3 respirable
Crystalline Silica - quartz	0.1 mg/m3 / 0.025 mg/m3 respirable
Feldspar	5 mg/m3 / 2 mg/m3 respirable

OSHA: Occupational Safety and Health Administration
ACGIH: American Conference of Governmental Industrial Hygienists
PEL: Permissible Exposure Limit
TLV: Threshold Limit Value

Engineering controls Wet clay posts no inhalation health risk. Avoid dust creation by wet cleaning only. In the event that dust is generated, use local exhaust ventilation or other engineering controls as required to maintain exposures below applicable occupational exposure limits (TLV).

Personal Protective Equipment (PPE)

Respiratory None required when working with wet clay. To minimize exposure to dry clay dust and/or crystalline silica, cutting or sanding dry clay products should not be attempted. Respirable dust and quartz levels should be monitored regularly. Dust and quartz levels in excess of appropriate exposure limits should be reduced by feasible engineering controls, including (but not limited to) wet sanding, wet suppression, ventilation, and process enclosure. When such controls are not feasible, NIOSH/MSHA approved respirators must be worn in accordance with a respiratory protection program which meets OSHA requirements as set forth at 29 CFR1910.134 and ANSI Z88.2-1080 "Practices for Respiratory Protection." In most cases, a disposable N-95 Particulate Respirator is sufficient.

Eyes Use of NIOSH/OSHA approved safety glasses is recommended when excessive dusty conditions are present or anticipated.

Skin and body Protective clothing is not essential. Use gloves and/or protective clothing if abrasion or allergic reactions are experienced.

Hygienic practices Food, beverages, and smoking materials should not be in the working area. Wash hands thoroughly after using clay and before eating, drinking or smoking. Wet cleaning only. Do not generate dust.

Section 9 – Physical and Chemical Properties

Appearance	Moist mud brick or lump
Color	Buff
Physical state	Solid
Odor	None or earthy
Odor threshold	Negligible
pH	6 - 8
Melting point	> 1093 °C or > 2000 °F
Freezing point	< 0 °C or < 32 °F
Boiling point	Not Applicable
Flash point	Not Applicable
Evaporation rate	Not Applicable
Flammability (solid, gas)	Not Applicable
Vapor pressure	Not Applicable
Vapor density	Not Applicable
Relative density/ Specific gravity	Above 2 gm/cc (H_2O=1)
Solubility in water at 100 °C	None
Partition coefficient	Not Applicable
Auto-ignition temp	Not Applicable
Decomposition temp	Not Applicable
Viscosity	Not Applicable

Section 10 - Stability and Reactivity

Reactivity	No dangerous reactions are known under normal conditions of use**.**
Chemical stability	Stable at standard temperatures and pressures.
Safety Issues	Mold may form in plastic bag after several months of shelf life. To avoid generation of dust, wet clean only.
Possibility of hazardous reactions	None
Conditions to avoid	None
Incompatibility	None
Hazardous decomposition products	None

Section 11 - Toxicological Information

Under normal conditions of use, wet clays do not pose toxicological dangers. Contact with excessive amounts of dry clay dust may have the following toxicity effects:

Primary Route of Exposure
Eye contact, skin contact, inhalation, and ingestion.

Specific Organ Toxicity - Single Exposure
Target organs include eyes, ears, skin, respiratory system, and gastrointestinal tract.

Specific Organ Toxicity - Repeated Exposure
Causes damage to eyes, skin, respiratory system, and gastrointestinal tract through prolonged or repeated exposure.

Acute Short-Term Exposure Effects
May cause eye irritation, skin irritation, respiratory tract irritation, and gastrointestinal tract irritation. Inhalation of high concentrations of dry clay dust may cause mechanical irritation and discomfort.

Chronic Long-Term Exposure Effects
Silica has been classified by OSHA as a human lung carcinogen. Repeated or prolonged exposure of respirable crystalline silica dust may cause lung damage in the form of silicosis.

Effects of silicosis include bronchitis/chronic obstructive pulmonary disorder, increased susceptibility to tuberculosis, scleroderma (a disease affecting skin, blood vessels, joints and skeletal muscles), and possible renal disease. Acute silicosis can be fatal.

Related Symptoms
Symptoms will include shortness of breath, fever, fatigue, loss of appetite, chest pain, and dry non-productive cough.

Medical Conditions Aggravated by Exposure
Individuals with pre-existing allergies, eye disorders, skin disorders, respiratory disorders and/or gastrointestinal disorders may have increased susceptibility to the effects of exposure.

OSHA, IARC, and NTP Carcinogen Classifications

Chemicals with Carcinogen Potential	CAS #	OSHA	IARC	NTP
Crystaline Silica – quartz	14808-60-7	YES	YES-1	YES

IARC – International Agency for Research on Cancer
OSHA – Occupational Safety & Health Administration
NTP – National Toxicology Program

1- Carcinogenic to humans

Section 12 - Ecological Information (non-mandatory)

Ecotoxicity	None
Persistence and degradability	None
Bioaccumulation potential	None
Mobility in soil	None
Other adverse environmental effects	None

Section 13 - Disposal Considerations (non-mandatory)

Personal Protection	Refer to Section 8 for proper PPE when disposing of waste.
Appropriate disposal methods	Standard waste disposal containers. Disposal of this product should comply with the requirements of environmental protection, waste disposal legislation, and any regional or local requirements.
Physical properties that may affect disposal	Wet clean only. Dry clay dust should be minimized by gentle spraying of water. When dry clay dust is generated, place it in a sealed container or in a manner that reduces or eliminates the release of the product.
Sewage disposal	Do not dispose of wet clay into sinks or toilets as it may cause clogging. Never dispose of this product into a sewer system.

Section 14 - Transportation Information (non-mandatory)

UN number	Not Applicable
UN shipping name	Not Applicable
Transportation hazard class	Not Applicable
Packing group	None
Environmental hazards	None
Special precautions	None

Section 15 - Regulatory Information (non-mandatory)

Silica (Quartz) is listed by California, Proposition 65, as a carcinogen.
Silica (Quartz) is listed on the IARC, OSHA, and NTP carcinogen list.
All ingredients are on the TSCA Chemical Substance Inventory.

Section 16 - Other Information

This information is furnished without warranty, representation, inducement or license of any kind, except that it is accurate to the best knowledge of Highwater Clays, Inc. or obtained from other references and sources believed to be accurate.

Highwater Clays, Inc. does not assume any legal responsibility for use or reliance on our products. Customers are encouraged to conduct their own test before using any product supplied by us. It is the users' responsibility to determine for themselves the suitability of any material for a specific purpose and to adopt such safety precautions as may be necessary. Highwater Clays, Inc. makes no warranty as to the results to be obtained in using any material and, since conditions of use are not under our control, we disclaim all liability with respect to the use of any material supplied by us.

This SDS is in compliance with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), and is subject to revision without notice.

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