

Section 1: Product and Company ID:

Product Names: Shelto wee, Mulhollun, Big Turtle, Clawhammer, Ranger

Synonym: Ceramic Pottery Clays-Water based, moist, mid-range warm brown-red clay bodies

Supplier/Manufacturer: Kentucky Mudworks, LLC, 800 Floyd Drive Suite 110, Lexington, KY
40505 USA 859-389-9681 ph, 859-368-9891 fax
info@kymudworks.com

Emergency Phone: 911

Product Use: Pottery and sculpture making

Restrictions on use: Not applicable

Section 2: Hazards Identification:

OSHA/HCS status This mixture only when in dry form is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

This mixture comes in moist form and poses no hazard.

These hazard classes and informational statements pertain primarily to this mixture in dry form as dust.

Classification of the substance or mixture:

Health:

CARCINOGENICITY (Inhalation) - Category 1A (quartz) (See Section 11 for carcinogen listings)

CARCINOGENICITY (Inhalation) - Category 2B (titanium dioxide)

SPECIFIC TARGET ORGAN TOXICITY (Repeated Exposure) (respiratory tract) (inhalation) - Category 1 (quartz)

SPECIFIC TARGET ORGAN TOXICITY (Repeated Exposure) (respiratory tract) (inhalation) - Category 2 (iron oxide)

SPECIFIC TARGET ORGAN TOXICITY (Single Exposure) (respiratory tract) (inhalation) - Category 3 (quartz)

EYE IRRITANT - Category 2A (quartz)

SKIN IRRITANT - Category 2 (quartz)

ENVIRONMENTAL: Not Hazardous

PHYSICAL: Not Hazardous



Signal Word: Danger

Hazard Statement---WARNING! Cancer Hazard. Contains quartz (crystalline silica) which can cause cancer.

Risk of cancer depends upon duration and level of exposure to dry clay dust. Not an acute hazard. Prolonged inhalation of dry clay dust may cause lung injury. Inhalation of high concentrations of dry clay dust may cause mechanical irritation and discomfort of the (respiratory tract). Repeated exposure may cause chronic effects.

Wear a N-95 face mask when cleaning up dry clay dust.

* Clay in moist form poses no health risk. Inhalation of dry clay dust should be avoided.

Precautionary Statements:

--Avoid breathing dust/spray/sanding dust.

--Do not get into eyes, wash hands thoroughly after using. Do not eat, drink, or smoke when using this product.

Response:

--Get medical attention if you feel unwell.

--If in eyes: Rinse carefully with water for several minutes.

--If swallowed: Rinse mouth. Do not induce vomiting.

--Collect spillage.

Storage: Store in dry place.

Hazards not otherwise classified: Slippery when wet.

Section 3: Composition/ Ingredient Information

Substances/Mixtures Mixture—A propriety formula trade secret claim is made for this group of substantially similar mixtures.

Chemical	CAS Numbers	Ingredient % of Product Mixture (Clay)		Chemical % of Ingredient	
Quartz (Crystalline Silica) SiO ₂	CAS#14808-60-7	Kaolin Clays	0-10	Kaolin Clays	.1-5
		Ball Clays	12-50	Ball Clays	5-30
		Red Clays	0-55	Red Clays	0-35
		Fire Clays	0-55	Fire Clays	0-25
		Silica	10-25	Silica	99.9
		Sands	0-5	Sands	13-25
		Bentonite	0-3	Bentonite	1-2
		Feldpsars	4-25	Feldpsars	2-15
		Iron Oxide	Trade secret	Iron Oxide	1-3
Amorphous Silica SiO ₂	CAS#7631-86-9	Fireclays	0-55	Fireclays	20-30
		Sands	0-5	Sands	50-70
		Calcined Grogs	0-20	Calcined Grogs	10-20
Kaolinite AL ₂ O ₃ .2SiO ₂ .2H ₂ O	CAS#1332-58-7	Kaolin Clays	0-10	Kaolin Clays	.1-4
		Ball Clays	12-55	Ball Clays	65-95
		Fire Clays	0-55	Fire Clays	60-100
Crystobalite SiO ₂	CAS#14464-46-1	Fire Clays	0-55	Fire Clays	0-25
		Calcined Grogs	0-20	Calcined Grogs	15-20
Alpha-Alumina Oxide AL ₂ O ₃	CAS#1344-28-1	Fire Clays	0-55	Fire Clays	0-70
		Red Clays	0-55	Red Clays	17-20
		Iron Oxide	Trade secret	Iron Oxide	.5-5
Mullite AL ₂ O ₃ .2SiO ₂	CAS#1302-93-8	Calcined Grogs	0-20	Calcined Grogs	65
Iron Oxide Dust & Fume (as Fe)	CAS#1309-37-1	Kaolin Clays	0-10	Kaolin Clays	.1-.8
		Ball Clays	12-55	Ball Clays	.5-2
		Fire Clays	0-55	Fire Clays	1.2-2.5
		Red Clays	0-55	Red Clays	5.2-18
		Iron Oxide	Trade secret	Iron Oxide	60-90
Titanium Dioxide TiO ₂	CAS#13463-67-7	Fire Clays	0-55	Fire Clays	0-4
		Red Clays	0-55	Red Clays	1-2
		Ball Clays	12-55	Ball Clays	1-3

Section 4: First Aid Measures

Description of First Aid Measures:

First-aid measures general

First-aid measures after inhalation

First-aid measures after skin contact

First-aid measures after eye contact

First-aid measures after ingestion

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical attention.
Move victim to well ventilated area. If mechanical discomfort persists, seek medical attention.
Remove contaminated clothing. Wash affected area with soap and water. Obtain medical attention if irritation persists.
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking, or redness persists.
Rinse mouth. Do NOT induce vomiting. Unlikely to be toxic by ingestion. If discomfort persists, seek medical attention.

Most Important Symptoms and Effects, both Acute and Delayed:

Symptoms/injuries

Causes damage to organs through prolonged or repeated exposure (inhalation) from dust.

Symptoms/injuries after inhalation

May cause cancer by inhalation. Dust from this product may cause irritation to the respiratory tract.

Symptoms/injuries after skin contact

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

Symptoms/injuries after eye contact

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

Symptoms/injuries after ingestion

If a large quantity has been ingested: intestinal blockage. Gastrointestinal irritation.

Chronic symptoms

Repeated or prolonged exposure to respirable crystalline silica dust can cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss. Acute silicosis can be fatal.

If concerned, get medical advice and attention.

Section 5: Fire-Fighting Measures

National Fire Protection Association (U.S.A.)

Suitable extinguishing media	This product is not combustible. Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	No restrictions on extinguishing media for this mixture.
Special hazards arising from the substance or mixture	This mixture is not flammable and does not support fire. The plastic bags and cardboard boxes containing the mixture are flammable.
Hazardous thermal decomposition products	This mixture does not contain hazardous decomposition products.
Special protective actions for fire-fighters	Product can become slippery when wet.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment.

Section 6: Accidental Release Measures

Use of personal precautions: Avoid inhalation of dry clay dust. Wear a N-95 face mask when cleaning up dry clay dust.

Emergency procedures: There are no emergency procedures required for this mixture.

Methods and Materials for containment: Product comes in plastic bags and weigh 25 lbs. There are no spill measures that apply for moist clay.

Wear a N-95 face mask when cleaning up dry clay dust

Clean up procedures: For dry dusts, use a HEPA vacuum to clean up spillage. If appropriate, use gentle water spray to wet down and minimize dust generation. Place dry clay dust in a sealed container.

Section 7: Handling & Storage

Precautions for safe handling: Keep out of direct sunlight. Do not expose to freezing. Boxes of moist clay weigh 52 lbs.

Use proper lifting techniques to avoid physical injury.

Recommendations on the conditions for safe storage: No special storage considerations, but keep in a dry, cool location.

Section 8: Exposure Controls/Personal Protection

Chemical Name	CAS Numbers	Occupational Exposure Limits
Quartz, SiO ₂ (Crystalline Silica)	CAS#14808-60-7	ACGIH TLV: TWA 0.025 mg/ m ³ (respirable) OSHA PEL†: TWA .10 mg/m ³ (respirable)
Amorphous Silica SiO ₂ (Glass & Diatomaceous Earth)	CAS#7631-86-9	ACGIH TLV: TWA 10.0 mg/ m ³ (respirable) OSHA PEL†: TWA for amorphous silica (diatomaceous earth) is either 80 mg/m ³ Divided by the value "%SiO ₂ ," or 20 mppcf.
Crystobalite SiO ₂	CAS#14464-46-1	ACGIH TLV: TWA 0.025 mg/m ³ (respirable) OSHA PEL: TWA .05 mg/m ³ (respirable)

Section 8: Exposure Controls/Personal Protection

Kaolinite Al ₂ O ₃ .2SiO ₂ .2H ₂ O	CAS#1332-58-7	ACGIH TLV: TWA 2 mg/ m ³ (respirable) OSHA PEL†: TWA 5 mg/ m ³ (respirable) OSHA PEL†: TWA 15 mg/ m ³ (total)
Alpha – Alumina Al ₂ O ₃ (Alumina Oxide)	CAS#1344-28-1	ACGIH TLV: TWA 10 mg/ m ³ (respirable) OSHA PEL†: TWA 15 mg/ m ³ (total dust)
Mullite Al ₂ O ₃ .2SiO ₂	CAS#1302-93-8	ACGIH TLV: TWA 2 mg/ m ³ (respirable) OSHA PEL†: TWA 5 mg/ m ³ (respirable) OSHA PEL†: TWA 15 mg/ m ³ (total)
Iron Oxide Dust and Fume (as Fe)	CAS# 1309-37-1	ACGIH TLV: TWA 5 mg/ m ³ (fume & dust) OSHA PEL†: TWA 5 mg/ m ³ (respirable) OSHA PEL†: TWA 15 mg/ m ³ (total dust)
Titanium Dioxide TiO ₂	CAS# 13463-67-7	ACGIH TLV: TWA 10 mg/ m ³ (respirable) OSHA PEL†: TWA 15 mg/ m ³ (total dust)

Appropriate engineering controls Clay in moist form poses no health risk and no inhalation risk.
Once clay has dried, there may be dust generated by cleaning and working processes.
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).

Recommendations for personal protective measures

Local Exhaust: When dry sanding or grinding clay products, use sufficient local exhaust to reduce the level of respirable dust to the applicable standards set forth in Section III. See ACGIH "Industrial Ventilation, A Manual of Recommended Practice," latest edition.

Respiratory Protection: Dust is generated when working with dry clay. To minimize exposure to dust and/or crystalline silica, cutting or sanding dry clay products should be conducted with sufficient ventilation.

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.**

Eye Protection: Use NIOSH/OSHA approved safety glasses with side shields. Face shields should also be used when dry sawing clay products. Wear tight fitting dust goggles when excessively (visible) dusty conditions are present or are anticipated. NIOSH recommends that contact lenses not be worn when working with crystalline silica dust.

Skin Protection: Use gloves and/or protective clothing if abrasion or allergic reactions are experienced.

Work/Hygienic Practices: Avoid creating and breathing dust. Wear NIOSH/MSHA approved dust mask when working in dust conditions. (N-95) Food, beverages, and smoking materials should NOT be in the work area.
Persons using ceramic materials should wash thoroughly before eating, drinking, smoking, or applying cosmetics.

Section 9: Physical & Chemical Properties

Physical State	Moist Plastic Clay
Appearance	Mud Brick
Odor	Earthy.
Odor Threshold	Not Applicable
pH	6 - 8
Solubility in Water	None
Melting Point	> 1200 °C (>2150°F)
Freezing Point	< 0 °C (<32°F)
Specific Gravity / Relative Density	2.35 g/cc
Evaporation Rate	No Data Available
No data available	Not Applicable
Boiling Point	Not Applicable
Not Applicable	Not Applicable
Flash Point	Not Applicable
Not Applicable	Not Applicable
Auto-Ignition Temperature	Not Applicable
Not Applicable	Not Applicable
Decomposition Temperature	Not Applicable
Not Applicable	Not Applicable
Flammability	Not Applicable

Section 10: Stability & Reactivity

Reactivity: Hazardous reactions will not occur under normal conditions.

Chemical stability: Stable at standard temperature and pressure.

No stabilizers required to maintain chemical stability.

Safety issues – Mold may form in bag after several months of shelf life. Not a harmful mold.

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: None known.

Incompatible materials: None known

Hazardous decomposition products: None known

Section 11: Toxicological Information

Routes of Exposure Inhalation of dry clay dust, Ingestion

Descriptions of the delayed, immediate, or chronic effects from short- and long-term exposure

Inhalation: Inhalation of high concentrations of dry clay dust may cause mechanical irritation and discomfort. Repeated exposure may cause chronic effects.

Eye Contact: Not a primary eye irritant. May cause mechanical irritation.

Skin Contact/Irritation: Not a skin irritant. Not absorbed through skin.

Sensitization: Not a sensitizer.

Ingestion: Not an ingestion hazard.

Chronic Effects

OSHA Carcinogen: Lung cancer – Silica has been classified by OSHA as a human lung carcinogen.

Repeated or prolonged exposure to respirable crystalline silica dust can cause lung damage in the form of silicosis.

Symptoms will include progressively more difficult breathing, cough, fever, and weight loss. Acute silicosis can be fatal.

Mutagenic Effects: None Known

Teratogenic Effects: None Known

Developmental Toxicity: None Known

Section 11: Toxicological Information

Effects of Silicosis

Bronchitis/Chronic Obstructive Pulmonary Disorder.

Tuberculosis – Silicosis makes an individual more susceptible to TB.

Scleroderma – a disease affecting skin, blood vessels, joints and skeletal muscles.

Possible renal disease.

Remarks: Carcinogenicity

Symptoms of Silicosis

Shortness of breath; possible fever.

Fatigue; loss of appetite.

Chest pain; dry, nonproductive cough.

Respiratory failure, which may eventually lead to death.

Repeated or long term exposure to respirable crystalline silica dust may cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss. Acute silicosis can be fatal. Short term exposure is of little concern.

None known

Numerical Measures of toxicity

OSHA, IARC, and NTP Carcinogen Classifications				
Chemicals with Carcinogen Potential	CAS#	OSHA	IARC	NTP
Quartz, (Crystalline Silica) SiO ₂	CAS # 14808-60-7	Yes	Yes - Group 1	Yes
Amorphous Silica (Glass & Diatomaceous Earth) SiO ₂	CAS # 7631-86-9	No	No-Group 3	No
Crystobalite SiO ₂	CAS#14464-46-1	yes	Yes-Group 1	Yes
Titanium Dioxide TiO ₂	CAS#13463-67-7	No	Yes-Group 2b	No
Iron Oxide Dust and Fume (as Fe)	CAS # 1309-37-1	No	No - Group 3	No

Substances, mixtures and exposure circumstances in this list have been classified by the [IARC](#) as **Group 1: The agent (mixture) is carcinogenic to**

humans. The exposure circumstance entails exposures that are carcinogenic to humans. This category is used when there is sufficient evidence of carcinogenicity in humans. Exceptionally, an agent (mixture) may be placed in this category when evidence of carcinogenicity in humans is less than sufficient but there is sufficient evidence of carcinogenicity in experimental animals and strong evidence in exposed humans that the agent (mixture) acts through a relevant mechanism of carcinogenicity.

The agents in this list have been classified in **Group 2A (probable carcinogens)**^[1] by the **IARC (International Agency for Research on Cancer)**. The term "agent" encompasses both substances and exposure circumstances that pose a risk. This designation is applied when there is *limited evidence* of **carcinogenicity** in humans as well as *sufficient evidence* of carcinogenicity in **experimental animals**. In some cases, an agent may be classified in this group when there is *inadequate evidence* of carcinogenicity in humans along with *sufficient evidence* of carcinogenicity in experimental animals and *strong evidence* that the carcinogenesis is mediated by a mechanism that also operates in humans. Exceptionally, an agent may be classified in this group solely on the basis of *limited evidence* of carcinogenicity in humans.

Substances, mixtures and exposure circumstances in this list have been classified by the **International Agency for Research on Cancer (IARC)** as **Group 2B: The agent (mixture) is possibly carcinogenic to humans**. The exposure circumstance entails exposures that are possibly carcinogenic to humans. This category is used for agents, mixtures and exposure circumstances for which there is limited evidence of carcinogenicity in humans and less than sufficient evidence of carcinogenicity in experimental animals. It may also be used when there is inadequate evidence of carcinogenicity in humans but there is sufficient evidence of carcinogenicity in experimental animals. In some instances, an agent, mixture or exposure circumstance for which there is inadequate evidence of carcinogenicity in humans but limited evidence of carcinogenicity in experimental animals together with supporting evidence from other relevant data may be placed in this group. Further details can be found in the **preamble to the IARC Monograph**.

Substances, mixtures and exposure circumstances in this list have been classified by the **IARC** as **Group 3: The agent (mixture or exposure circumstance) is not classifiable as to its carcinogenicity to humans**. This category is used most commonly for agents, mixtures and exposure circumstances for which the evidence of carcinogenicity is inadequate in humans and inadequate or limited in experimental animals. Exceptionally, agents (mixtures) for which the evidence of carcinogenicity is inadequate in humans but sufficient in experimental animals may be placed in this category when there is strong evidence that the mechanism of carcinogenicity in experimental animals does not operate in humans. Agents, mixtures and exposure circumstances that do not fall into any other group are also placed in this category. Further details can be found in the **IARC Monographs**.

Section 12: Ecological Information (non-mandatory)

Ecotoxicity: None Known
Biochemical oxygen demand (BOD5): None Known
Chemical oxygen demand(COD): None Known
Products of Biodegradation: None Known
Toxicity of the products of Biodegradation: None Known
Bioaccumulation Potential: None Known
Potential to move from soil to groundwater: None Known

Section 13: Disposal Considerations

Personal Protection: Refer to Section 8: "Recommendations for Personal Protective Measures" when disposing of ceramic waste.

Appropriate disposal containers: Standard waste disposal containers – no specials requirements.

Appropriate disposal methods: Disposal of this product should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. In most cases, this is normal waste disposal. The generation of waste should be avoided or minimized. Dispose of non-recyclable products via a licensed waste disposal contractor. Waste packaging should be recycled. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

Physical and chemical properties that may affect disposal: Dry clay dust should be placed in a sealed container or in a manner that reduces or eliminates the release of the product. Moist clay has no special requirements.
Packaging should be recycled before disposal.

Sewage disposal: Do not dispose of into sinks or toilets. They will clog. Never dispose of this product into a sewer system.

Special precautions for landfills or incineration activities: There are no special precautions for disposal in a landfill. This product is non-combustible and is not suitable for incineration.

Section 14: Transportation Information

Regulatory Information	UN Number	UN Proper Shipping Name	Transport Hazard Class	Packing Group Number	Bulk Transport Guidance	Special Precautions
DOT Classification	Not Regulated	--	--	--	--	--

TDG Classification	Not Regulated	--	--	--	--	--
ADR/RID Class	Not Regulated	--	--	--	--	--
IMDG Class	Not Regulated	--	--	--	--	--
IATA-DGR Class	Not Regulated	--	--	--	--	--

Section 15: Regulatory Information

TSCA – Toxic Substances Control Act - EPA

CONFORMS WITH ASTM D4236

California Prop. 65

SARA/Title III (Emergency Planning & Community Right-to-know Act)

Quartz and other chemicals are listed in the TSCA Chemical Substance Inventory

Certified Non-Toxic in moist form.

ASTM - American Society for Testing and Materials

WARNING: This product contains a chemical known to the State of California to cause cancer. (Prop. 65 - Calif. Health & Safety Code Section 2549 Et Seq.) This mixture contains no substances at or above the reporting threshold under Section 313, based on available data.

Section 16: Other Information

Appendix C – Supplementary Exposure Limits

Mineral Dusts OSHA PELs for "mineral dusts" listed below are from Table Z-3 of 29 CFR 1910.1000. The OSHA PEL (8-hour TWA) for crystalline silica (as respirable quartz) is either 250 mppcf divided by the value "%SiO₂ + 5" or 10 mg/m³ divided by the value "%SiO₂ + 2." The OSHA PEL (8-hour TWA) for crystalline silica (as total quartz) is 30 mg/m³ divided by the value "%SiO₂ + 2." The OSHA PELs (8-hour TWAs) for cristobalite and tridymite are ½ the values calculated above using the count or mass formulae for quartz. The OSHA PEL (8-hour TWA) for amorphous silica (including diatomaceous earth) is either 80 mg/m³ divided by the value "%SiO₂," or 20 mppcf.

Definitions

ASTM means American System of Testing and Materials

OSHA means Occupational Safety & Health Administration

IARC means International Agency for Research on Cancer

NTP means National Toxicology Program

HCS means Hazardous Communication Standard

CAS means Chemical Abstract Service

ACGIH means American Conference of Governmental Industrial Hygienists

OSHA means Occupational Safety & Health Administration

OSHA PEL means OSHA Permissible Exposure Limit

OSHA STEL means spot exposure for a duration of 15 minutes, that cannot be repeated more than 4 times per day, with at least 60 minutes between exposure periods

TWA means Time Weighted Average (average exposure on the basis of an 8h/day, 40h/week work schedule)

TLV means Threshold Limit Value - American Conference of Governmental Industrial Hygienists (ACGIH)

Three types of TLVs for chemical substances as defined by the ACGIH are:

1. **TLV-TWA** - Time weighted average - average exposure on the basis of an 8h/day, 40h/week work schedule.
2. **TLV-STEL** - Short-term exposure limit - spot exposure for a duration of 15 minutes, that cannot be repeated more than 4 times per day, with at least 60 minutes between exposure periods.
3. **TLV-C** - Ceiling limit - absolute exposure limit that should not be exceeded at any time.

This SDS is in compliance with The Globally Harmonized System of Classification and Labeling of Chemicals (GHS) – prepared June 1, 2016. This data sheet is subject to change without notice.

Information presented herein has been compiled from sources considered to be dependable and is accurate and reliable to the best of our knowledge and belief but is not guaranteed to be so. Nothing herein is to be construed as recommending any practice or any product in violation of any patent or in violation of any law or regulation. It is the user's responsibility to determine for himself the suitability of any material for a specific purpose and to adopt such safety precautions as may be necessary. We make no warranty as to the results to be obtained in using any material and, since conditions of use are not under our control, we must necessarily disclaim all liability with respect to the use of any material supplied by us.

KyMudworks

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Mudworks GHS-United States

SAFETY DATA SHEET

End.

Revised Nov.3, 2019, revised 02/2022. Warm Brown & red clay bodies.