

# Material Safety Data Sheet

## CRYSTAL CLAY HARDENER

Updated: 07/11

### Section 1 - Chemical Product and Company Identification

**Product Name:** CRYSTAL CLAY HARDENER

**General Use:** Combine with Crystal Clay Resin to make a room temperature curing clay.

**Supplier:** Crystal Clay, PO BOX 576.Swansea MA 02777

FOR CHEMICAL EMERGENCY CALL CHEMTREC (24 HOURS)

1-800-424-9300 (U.S., Canada, Puerto Rico, Virgin Islands)

1-703-527-3887 (Outside above area, collect calls accepted)

For non-emergency information, call: 1-317-736-4090 (Monday-Friday 7:30am to 4:30pm EST)

### Section 2 - Composition / Information on Ingredients

Ingredient Name	Exposure Limits	CAS Number	% wt
Polymer of c-18 unsat'd fatty acid dimmers w/ teta and tofa	None established	68082-29-1	<50
Triethylenetetramine	TWA:WEEL 1 ppm 6 mg/m <sup>3</sup>	112-24-3	<5
Aluminum Silicate	PEL-OSHA 10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust) TLV-ACGIH 2 mg/m <sup>3</sup> (respirable fraction)	1332-58-7	<50
Hydrous Magnesium Silicate	OSHA - 20 mppcf PELTWA ACGIH - 2 mg/m <sup>3</sup> TLV TWA (respirable dust)	14807-96-6	<25
Synthetic amorphous Silica	OSHA - .8 mg/m <sup>3</sup> TWA concentration OSHA - 20 millions of particles/cu. ft.	65997-17-3	<25

### Section 3 - Hazards Identification

#### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

**HMIS**

**H** 2

**F** 1

**R** 0

†Sec. 8

Moderate respiratory irritant.

Moderate skin irritant.

Moderate eye irritant.

May cause sensitization by skin contact.

Target Organs:           Respiratory system

Skin

Eyes

Symptoms                 Repeated and/or prolonged exposure to low concentrations of vapors may cause sore throat.

#### Potential Health Effects

##### Acute Effects-

**Inhalation:** Harmful if inhaled and may cause delayed lung injury. May cause nose, throat, and lung irritation.

**Eye:** Product vapor in low concentrations can cause lacrimation, conjunctivitis and corneal edema when absorbed into the tissue of the eye from the atmosphere. May cause eye irritation.

**Skin:** Causes severe skin irritation or burns.

**Chronic Effects:** This product contains no carcinogens according to IARC,ACGIH, NTP and/or OSHA. Repeated or prolonged contact causes sensitization, asthma, and eczemas.

### Section 4 - First Aid Measures

**Inhalation:** Remove to fresh air. If symptoms persist, consult a physician.  
**Eye Contact:** Flush with large amounts of water for at least 15 minutes. Get prompt medical attention.  
**Skin Contact:** Remove contaminated clothing. Wash with soap and water. If irritation develops seek medical attention.  
**Ingestion:** Do not induce vomiting. Give large amounts of water followed by milk if available. Get medical attention.

### Section 5 - Fire-Fighting Measures

**Flash Point:** Not determined  
**Flash Point Method:**  
**Auto Ignition Temperature:** Not determined  
**LEL:** Not determined  
**UEL:** Not determined  
**Extinguishing Media:** Alcohol resistant foam, carbon dioxide, dry sand, dry chemical, or limestone powder.  
**Specific Hazards:** May generate ammonia gas. May generate toxic nitrogen oxide gases. Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from fire fighting to enter drains or water courses. Incomplete combustion may form carbon monoxide. Ammonia gas may be liberated at high temperatures. In case of incomplete combustion an increased formation of oxides on nitrogen is to be expected. Downwind personnel must be evacuated. Burning produces obnoxious and toxic fumes.  
**Special Fire Fighting Procedures:** When fire fighting, wear full protective equipment including self-contained breathing apparatus.

### Section 6 - Accidental Release Measures

**Spill /Leak Procedures:** This is a soft putty-like solid, pick up and replace in appropriate chemical waste container. Use adequate protective equipment.

### Section 7 - Handling and Storage

**Handling Precautions:** Adhere to work practice rules established by government regulations. Avoid breathing vapors. Avoid contact with eyes. Use only in well ventilated areas. Use personal protective equipment. When using, do not eat, drink, or smoke.  
**Storage Requirements:** Do not near acids. Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store in reactive metal containers.

### Section 8 - Exposure Controls / Personal Protection

**Engineering Controls:**  
**Ventilation:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2).  
**Administrative Controls:** †PPE = Personal Protective Equipment  
**Eye Protection:** Safety gasses per OSHA eye- and face-protection regulations (29 CFR 1910.133).  
**Respiratory Protection:** Respirator with organic vapor cartridge when ventilation is inadequate.  
**Protective Clothing:** Wear chemically protective rubber or plastic gloves, aprons, long sleeved shirts and pants with out cuffs to prevent prolonged or repeated skin contact.  
**Contaminated Equipment:** Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.  
**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

### Section 9 - Physical and Chemical Properties

<b>Physical State:</b> Solid	<b>pH:</b> Not determined
<b>Appearance and Odor:</b> Gray clay with an ammonia-like odor.	<b>Water Solubility:</b> Not determined
<b>Odor Threshold:</b> Not determined	<b>Coefficient of Water/Oil Distribution:</b> Not determined
<b>Vapor Pressure:</b> Not determined	<b>Boiling Point:</b> Not determined
<b>Vapor Density (Air=1):</b> Not determined	<b>Freezing/Melting Point:</b> Not determined
<b>Density:</b> Not determined	<b>% Volatile:</b> Not determined
<b>Specific Gravity (H<sub>2</sub>O=1, at 4 °C):</b> Not determined	<b>Evaporation Rate:</b> Not determined

### Section 10 - Stability and Reactivity

**Stability:** Product is stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization cannot occur.

**Chemical Incompatibilities:** Sodium hypochlorite, organic acids, mineral acids, peroxides, nitrous acid, oxidizing agents.

**Hazardous Decomposition Products:** Nitric acid, ammonia, nitrogen oxides, carbon monoxide, carbon dioxide, nitrosamine.

### Section 11- Toxicological Information

#### Toxicity Data:

#### Acute Health Hazard

Type of Study	Results	Species
Dermal LD (50)	>2,000 mg/kg	Rabbit
Dermal irritation	Moderate skin irritation	Rabbit
Oral LD (50)	>2,000 mg/kg	Rat
Sensitization	May cause sensitization by skin contact.	

#### Chronic Health Hazard

Results from a battery of short term genotoxicity tests on this material or its components indicate mutagenic activity.

### Section 12 - Ecological Information

**Ecotoxicity:** Not determined

**Environmental Fate:** Not determined.

### Section 13 - Disposal Considerations

Waste from residues / unused products: Contact supplier if guidance is required.

Contaminated packaging: Dispose of container and unused contents in accordance with federal, state, and local requirements.

### Section 14 - Transport Information

#### DOT Transportation Data (49 CFR 172.101):

CFR	not regulated	IMDG	not regulated
IATA	not regulated	CTC	not regulated
Further information:	Not dangerous goods		

### Section 15 - Regulatory Information

#### EPA Regulations:

TSCA: This product and/or all of its components are either included on or exempt from the TSCA Inventory of Chemical Substances.

CERCLA Hazardous Substance (40 CFR 302.4): Unlisted.

SARA 311/312 Codes: Acute. Chronic.

SARA 313 Toxic Chemicals: None

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed.

WHMIS Hazard Classification: Toxic material causing other toxic effects.

California Proposition 65 Components: None

### Section 16 - Other Information

HMIS RATINGS: HEALTH: 2 FLAMMABILITY: 1 REACTIVITY: 0

#### WARNING!

May cause skin and eye irritation.

May cause irritation of the respiratory tract.

FIRST AID – INHALATION: Move to fresh air. If symptoms persist consult a physician.

**FIRST AID – SKIN CONTACT:** Wash thoroughly with soap and water. Remove contaminated clothing and footwear. Wash clothing before reuse. Discard footwear that has been contaminated on the inner surfaces. If irritation should develop seek medical attention.

**FIRST AID – EYE CONTACT:** Flush eyes with plenty of water for at least 15 minutes. Do not permit victim to rub eyes. Get medical attention immediately.

**FIRST AID – INGESTION:** Do not induce vomiting. Give large amounts of water followed by milk if available. If vomiting should occur keep airway clear. Get medical attention. Never give anything by mouth to an unconscious person.

**HANDLING AND STORAGE:** Do not store or handle the product in the presence of heat, sparks, of open flame.

Prepared By: Robert Holmes

Date prepared: July, 2011

**Disclaimer:** The information on this MSDS is based on the data available to us and is believed to be correct. However, Crystal Clay. makes no warranty, express or implied, regarding the accuracy of this data.

# Material Safety Data Sheet

## CRYSTAL CLAY RESIN

Updated: 07/11

### Section 1 - Chemical Product and Company Identification

**Product Name:** CRYSTAL CLAY RESIN

**General Use:** Combine with Crystal Clay Hardener, to make a room temperature curing clay.

**Supplier:** Crystal Clay, PO BOX 576, Swansea, MA 02777

FOR CHEMICAL EMERGENCY CALL CHEMTREC (24 HOURS)

1-800-424-9300 (U.S., Canada, Puerto Rico, Virgin Islands)

1-703-527-3887 (Outside above area, collect calls accepted)

For non-emergency information, call: 1-317-736-4090 (Monday-Friday 7:30am to 4:30pm EST)

### Section 2 - Composition / Information on Ingredients

Ingredient Name	Exposure Limits	CAS Number	% wt
Diglycidyl Ether of Bisphenol-A	None established	25068-38-6	<50
Aluminum Silicate	PEL-OSHA 10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust) TLV-ACGIH 2 mg/m <sup>3</sup> (respirable fraction)	1332-58-7	<50
Hydrous Magnesium Silicate	OSHA - 20 mppcf PELTWA ACGIH - 2 mg/m <sup>3</sup> TLV TWA (respirable dust)	14807-96-6	<25
Synthetic amorphous Silica	OSHA - .8 mg/m <sup>3</sup> TWA concentration OSHA - 20 millions of particles/cu. ft.	65997-17-3	<25

### Section 3 - Hazards Identification

#### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

HMIS	
H	2
F	1
R	0
†Sec. 8	

#### Potential Health Effects

**Primary Entry Routes:** Eye contact, skin contact, inhalation

**Target Organs:** Eyes, skin, respiratory tract

#### Acute Effects

**Inhalation:** Vapor may cause irritation to the respiratory tract.

**Eye:** Direct contact may cause mild irritation.

**Skin:** Direct contact may cause mild irritation.

**Ingestion:** May cause nausea and vomiting.

**Medical Conditions Aggravated by Long-Term Exposure:** Eye and skin disorders may be affected and compounded with irritation.

Pre-existing skin or lung allergies may develop increased symptoms.

**Chronic Effects:** No evidence of adverse effects from available information.

#### PLEASE NOTE:

Before using, please see the hardener MSDS concerning the hazards of the hardener.

### Section 4 - First Aid Measures

**Inhalation:** Remove to fresh air.

**Eye Contact:** Flush with large amounts of water for at least 15 minutes.

**Skin Contact:** Remove contaminated clothing. Wash with soap and water.

**Ingestion:** Do not induce vomiting. Give one glass of water unless victim is drowsy, convulsing or unconscious. Seek immediate medical attention.

**After first aid, get appropriate in-plant, paramedic, or community medical support.**

**Note to Physicians:** There is no specific antidote. Treatment should be directed to the control of symptoms.

### Section 5 - Fire-Fighting Measures

**Flash Point:** 489 °F (254 °C)

**Flash Point Method:** PMCC

**Auto Ignition Temperature:** Not determined

**LEL:** Not determined

**UEL:** Not determined

**Extinguishing Media:** Water fog, carbon dioxide, foam, or dry chemical.

**Unusual Fire or Explosion Hazards:** Water or foam may be dangerous if sprayed into a container of burning liquid.

**Hazardous Combustion Products:** Not available.

**Fire-Fighting Instructions:** Do not release runoff from fire control methods to sewers or waterways.

**Fire-Fighting Equipment:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

### Section 6 - Accidental Release Measures

**Spill /Leak Procedures:**

**Small Spills:** This is a soft putty-like solid, pick up and replace in container.

**Large Spills:**

**Containment:** Do not release into sewers or waterways.

**Cleanup:** This is a soft putty-like solid, pick up and replace in container.

**Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1910.120).

### Section 7 - Handling and Storage

**Handling Precautions:** Avoid skin and eye contact. Wash after handling. Do not take internally.

**Storage Requirements:** Store in a cool, dry place. Keep away from open flames and high temperatures.

### Section 8 - Exposure Controls / Personal Protection

**Engineering Controls:**

**Ventilation:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**Administrative Controls:** †PPE = Personal Protective Equipment

**Respiratory Protection:** Not ordinarily required. If exposure may or does exceed occupational exposure (sec. 2) use a NIOSH approved respirator to prevent overexposure.

**Protective Clothing/Equipment:** Wear chemically protective gloves and aprons to prevent prolonged or repeated skin contact.

Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133).

**Safety Stations:** Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

**Contaminated Equipment:** Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

### Section 9 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance and Odor:** Gray putty with hydrocarbon odor.

**Odor Threshold:** Unknown

**Vapor Pressure:** Not available

**Vapor Density (Air=1):** Not available

**Density:** Not available

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** Not available

**pH:** Not applicable

**Water Solubility:** Not available

**Coefficient of Water/Oil Distribution:** Not available

**Boiling Point:** Not applicable

**Freezing/Melting Point:** Not applicable

**% Volatile:** Not available

**Evaporation Rate:** Not applicable

### Section 10 - Stability and Reactivity

**Stability:** Product is stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization cannot occur.

**Conditions to Avoid:** None.

**Hazardous Decomposition Products:** Not available

**Section 11- Toxicological Information****Toxicity Data:****Eye Effects:** Moderately irritating.**Skin Effects:**  
Irritancy: Moderate.**Synergistic Products:** None.**Acute Inhalation Effects:**LC<sub>50</sub>: Not available.

Inhalation is not an expected route of exposure, due to low volatility of product.

**Acute Oral Effects:**Rat, oral, LD<sub>50</sub>: >2 g/kg diglycidyl ether of bisphenol-A**Chronic Effects:** No evidence of adverse effects from available information.**Reproductive Effects:** None Known**Mutagenicity:** None**Teratogenicity:** None**Section 12 - Ecological Information****Ecotoxicity:** Keep out of surface waters, sewers and waterways.**Section 13 - Disposal Considerations****Disposal:** Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable federal, state, and local regulations.**Section 14 - Transport Information****DOT Transportation Data (49 CFR 172.101):****Shipping Name:** Not regulated.**Section 15 - Regulatory Information****EPA Regulations:**

TSCA Inventory Status: Listed

CERCLA Section 103 Hazardous Substance (40 CFR 302.4): Unlisted.

SARA 302/304 Codes: No

SARA 311/312 Codes: No

**OSHA Regulations:**

Process Safety (29 CFR 1910.119): No

**Other Regulations:**

California Proposition 65: No

**Section 16 - Other Information**

HMIS RATINGS: HEALTH: 2 FLAMMABILITY: 1 REACTIVITY: 0

**Prepared By:** Robert Holmes

Date prepared: July, 2011

**Disclaimer:** The information on this MSDS is based on the data available to us and is believed to be correct. However, Crystal Clay makes no warranty, express or implied regarding the accuracy of this data.