

12/16/2008

**MATERIAL SAFETY DATA SHEET**



PRODUCT / MATERIAL: CLAY  
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**SECTION I - PRODUCT INFORMATION**

TRADE NAME: WC391  
SYNONYM: B-3 BROWN  
CHEMICAL FAMILY: Ceramic Blend

**SECTION II - HAZARDOUS INGREDIENTS**

INGREDIENT NAME	Maximum Percent	CAS NUMBER	OSHA PEL TWA: (mg/m3)	NIOSH REL TWA: (mg/m3)	ACGIH TLV TWA: (mg/m3)
Cristobalite	2	14464-46-1	5 mg/m3 / % SiO2 + 2	0.05	0.05
Lead or Lead Compounds	0.00	7439-92-1	0.05	0.1	0.05
Manganese or Manganese Compounds	6	7439-96-5	5		0.2
Silica, Crystalline (Quartz)	33	14808-60-7	10 mg/m3 / %SiO2 + 2	0.05	0.05
Silicon Dioxide	2	7631-86-9	80 mg/m3 / % SiO2		3
Titanium Dioxide	1	13463-67-7	15		10

**SECTION III - PHYSICAL DATA**

BOILING POINT (°F) Not Applicable  
VAPOR PRESSURE Not Applicable  
VAPOR DENSITY Not Applicable  
SOLUBILITY IN WATER Insoluble  
SPECIFIC GRAVITY 1.7 – 3.7  
PERCENT VOLATILE BY WEIGHT 0  
EVAPORATION RATE 0  
APPEARANCE AND ODOR Color varies between moist and dry state; no odor.

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT Not Flammable  
EXTINGUISHING MEDIA Water  
UNUSUAL FIRE OR EXPLOSION HAZARDS None  
SPECIAL FIRE FIGHTING PROCEDURES None

**SECTION V - REACTIVITY DATA**

STABILITY FACTOR Product is stable.  
INCOMPATIBILITY None  
HAZARDOUS DECOMPOSITION PRODUCTS None. Hazardous polymerization will not occur.  
CONDITIONS TO AVOID Inhalation of dust.



## SECTION VI - HEALTH HAZARD DATA

### ◆ Cristobalite

Reported inhalation of respirable cristobalite over a number of years can cause lung disease (silicosis) and increase the risks of developing respiratory cancer.

### ◆ Lead or Lead Compounds

Acute exposures: Inhalation is the main route of lead intoxication. Symptoms which may be experienced from the inhalation of lead dust or fume may not develop quickly, therefore there may be no immediate effects from exposure. Increasing amounts can build up in the body and may reach a point where symptoms and disability may occur. The effects of exposure to fumes and dusts of inorganic lead may include decreased physical stamina, fatigue, sleep disturbance, headaches, aching bones and muscles, constipation, abdominal pains and decreased appetite. Inhalation of large amounts may lead to seizures, coma or possibly death.

Chronic exposures: Lead is a cumulative poison. Increasing amounts can build up in the body and may reach a point where symptoms and disability can occur. These may include anemia, pale skin, a blue line at the gum margin, decreased hand-grip strength, abdominal pain, severe constipation, nausea, vomiting, and paralysis of the wrist joint. Prolonged exposure may result in kidney damage. If the nervous system is affected, usually due to very high exposures, the resulting effects include severe headaches, convulsions, delirium, coma, and possibly death. Continuous exposure may result in decreased fertility. Lead is a teratogen. Elevated lead exposure of either parent before pregnancy may increase the chances of miscarriage or birth defects. Exposure of the mother during pregnancy may cause birth defects.

### ◆ Manganese or Manganese Compounds

Acute effects of exposure: Exposure via inhalation to heavy concentrations of dusts containing manganese compounds for as little as three months have effected the central nervous system as manganese poisoning. Chronic effects of exposure: Excessive, long-term inhalation of airborne mineral dusts and particulate may contribute to the development of bronchitis, reduced breathing capacity, and may lead to the increased susceptibility to lung disease. Manganese poisoning: The excessive, chronic inhalation of manganese compounds usually begins with complaints of languor and sleepiness. This is followed by weakness in the legs and the development of stolid, mask-like faces. The patient speaks with a slow monotonous voice. Then muscular twitching appear, varying from a fine tremor of the hands to coarse, rhythmical movements of the arms, legs, and trunk. There is a slight increase in tendon reflexes, ankle and patellar clonus, and a typical Parkinsonian slapping gait.

### ◆ Silica, Crystalline (Quartz)

A single exposure will not result in serious adverse health effects.

Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs. Silicosis may be progressive; it may lead to disability and death. Crystalline silica (quartz) inhaled from occupational sources is classified as carcinogenic to humans. There are some studies that show excess numbers of cases of scleroderma and other connective tissue disorders in workers exposed to respirable crystalline silica. Silicosis increases the risk of tuberculosis. There are some studies that show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica.

### ◆ Silicon Dioxide

Irritation eyes, pneumoconiosis.

### ◆ Titanium Dioxide

NIOSH has identified titanium dioxide as a potential occupational carcinogen.

PRIMARY ROUTES OF ENTRY: Inhalation (dry form only), ingestion and dermal.

SUMMARY OF RISKS:	Individuals with a lung disease/condition (e.g.: bronchitis, emphysema, chronic pulmonary disease) can be aggravated by exposure.
EMERGENCY FIRST AID:	No specific first aid is necessary since the adverse health effects associated with this compound results from chronic exposures.
Eye Contact	May be an irritant, flush eyes with generous amounts of water for at least 15 minutes; call a physician if irritation persists.
Skin Contact	May cause local dermatitis, which is relieved when removed.
Ingestion	Toxicity due to ingestion is low.
Inhalation	Remove to fresh air, call a physician if irritation due to inhalation persists.
Physician's Note	None.

### SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Spills or Release Procedure	Follow normal clean-up procedures. Care should be taken to avoid causing dust to become airborne. Vacuum or use wet clean-up techniques.
Waste Disposal Procedure	Dispose material in accordance with Federal, State, and Local regulations.

### SECTION VIII - CONTROL MEASURES

Provide adequate ventilation to keep dust or vapor concentrations below acceptable exposure limits. Use gloves as needed for handling material containers. Wear safety glasses when needed. Appropriate respiratory protection may be required to protect from certain dusts. Respirators must be selected and used in accordance with OSHA Subpart 1 of (29 CFR 1910.134).

### SECTION IX - TOXICOLOGICAL INFORMATION

This product (and all of it's components) is in compliance with the U.S. EPA 15 U.S. C.2604 regulation.

This product is certified as NON-TOXIC, and conforms to ASTM-D4236 and C-1023 under the federal Labeling of Hazardous Art Materials Act (LHAMA). Specific Toxicology information on materials is available upon request.

### SECTION X - REGULATORY

This product may contain materials that are reportable under Section 313 of the Emergency Planning and Community Right-To-Know Act (Superfund Amendments and Reauthorization Act – SARA), and 40 CFR Part 372.

SARA Title III Data:

Manganese or Manganese Compounds	<	6	%
Lead or Lead Compounds	<	0.00	%

These levels are "typical quantities" and may change slightly with different lots.

THIS PRODUCT CONTAINS SUBSTANCES REGULATED UNDER CALIFORNIA'S SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65).



**SECTION XI - DISCLAIMER**

The information provided in this MSDS document has been provided to Laguna Clay Company by its material suppliers and is represented by those suppliers as accurate and reliable.

Laguna Clay Company is not liable for injury, loss, or damage, direct or consequential, arising out of the use or inability to properly use this product. This product is intended only for use in traditional ceramic applications.

This MSDS conforms to the ASTM D-4236 and C-1023 requirements defined by LHAMA, the Federal Labeling of Hazardous Art Materials Act. LHAMA was developed by the American Society of Testing and Materials (ASTM) to ensure the proper labeling of art materials.