

# MATERIAL SAFETY DATA SHEET

## SECTION I – Product/Company Identification

**1.1 Product Trade Name:** **CASTRITE™** Calcium Sulfate Hemihydrate  
(Plaster of Paris, CaSO<sub>4</sub>·H<sub>2</sub>O)

**1.2 Part (Item) Number:** SM102018R

**1.3 Division Name:** ArtMolds

**1.4 Address:** 18 Bank Street  
City State ZIP: Summit NJ 07901

**1.5 Emergency Telephone:** 1-866-278-6653

**1.6 Information Telephone:** 1-908-273-5401

**1.7 Date Prepared:** 8/28/02 **Date Revised** 8/28/02

## SECTION II – Hazardous Ingredients/Identity Information

<u>Hazardous Components</u>	<u>WT%</u>	<u>SHA PEL</u>	<u>ACGIH TLV</u>
Plaster of Paris	>95	15 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
Crystalline Silica	>5	0.1 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>

**Warning:** This product contains silica, crystalline (airborne particles of respirable size) that is known by the State of California to cause cancer.

## SECTION III – Physical/Chemical Properties

**3.1 Boiling Point:** N/A

**3.2 Vapor Pressure:** N/A

**3.3 Vapor Density:** N/A

**3.4 Solubility in water:** 0.15%

**3.5 Appearance and odor:** Off white to gray powder; low odor.

**3.6 Specific Gravity:** 2.3-2.6 g/cm<sup>3</sup> **PH** 7.5-8.5

**3.7 Melting point:** 1450°C decomposes

**3.8 Evaporation rate:** N/A

## SECTION IV – Fire and Explosion Hazard Data

**4.1 Flash Point (method used):** N/A

**4.2 Flammability (explosive limits):** LEL: N/A UEL: N/A

**4.3 Extinguishing media:** N/A

**4.4 Special fire fighting procedures:** Use extinguishing media appropriate for surrounding fire.

**4.5 Unusual fire and Explosion hazards:** In common with most organic materials, this product should be treated as a combustible dust in the finely divided and suspended state.

## SECTION V – Reactivity Data

**5.1 Stability:** Unstable: Stable: X

**5.2 Conditions to avoid:** High humidity and water contamination will cause material to set.  
Prolonged exposure to heat greater than 60° C (140° F)

**5.3 Incompatibility (materials to avoid):** Acids

**5.4 Hazardous decomposition or byproducts:** Above 1450°C could produce CaO and SO

**5.5 Hazardous polymerization:** May Occur: May not occur: X

**5.6 Conditions to avoid (polymerization)** High humidity and prolonged heat greater than 60° C

## SECTION VI – Health Hazard Data

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**6.1 Primary routes(s) of entry:**

**Inhalation?:** Yes      **Skin?:** No      **Ingestion?:** Yes

**6.2 Health Hazards (acute and chronic):**

This product can release nuisance dust in handling or during use. Eye, skin, nose, throat, and upper respiratory irritation may occur with prolonged dust exposures.

**EFFECTS OF OVEREXPOSURE:**

**ACUTE:**

**EYES:** Direct contact can cause mechanical irritation of eyes. If burning, redness, itching, pain or other symptoms persist or develop, consult physician.

**SKIN:** When mixed with water, this material hardens and then slowly becomes hot.

**DO NOT** attempt to make a cast enclosing any part of the body using this material. Failure to follow these instructions can cause severe burns that may require surgical removal of affected tissue or amputation of limb. Direct, prolonged or repeated contact with the skin may cause irritation. Rubbing of this product against the skin can result in abrasions. Rinse with water until free of material to avoid abrasions, then wash skin thoroughly with mild soap and water. May dry skin.

**INHALATION:** Inhalation of dusts from this product may irritate the nose, throat, lungs, and upper respiratory tract. Persons subjected to large amounts of this dust will be forced to leave area because of nuisance conditions such as coughing, sneezing and nasal irritation. Labored breathing may occur after excessive inhalation. If respiratory symptoms persist, consult physician.

**INGESTION:** Unlikely to occur, but may cause gastric disturbances if swallowed. Plaster of Paris is non-toxic, however, ingestion of a sufficient quantity could lead to mechanical obstruction of the gut, especially the pyloric region. See Emergency and First Aid - Ingestion below.

**CHRONIC:**

This material displays no specific toxic properties.

**INHALATION:** Prolonged and repeated exposure to respirable crystalline silica can result in lung disease (i.e., silicosis) and/or lung cancer.

**EYES:** None known.

**SKIN:** None known.

**INGESTION:** No known effects.

**MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED:** Pre-existing upper respiratory and lung diseases such as, but not limited to, bronchitis, emphysema and asthma.

**PRIMARY ROUTES OF ENTRY:** Inhalation: eyes and/or skin contact.

**6.3 Carcinogenicity:**

The average concentration of respirable crystalline silica measured in USG plaster of paris was less than 0.1 Wt.%. In June, 1997, the International Agency for Research on Cancer (IARC) classified crystalline silica (quartz and cristobalite) as a human carcinogen. In making the overall evaluation, the IARC Working Group noted that carcinogenicity in humans was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs. IARC states that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1).

**6.4 Signs and symptoms of exposure:**

**Inhalation:** Irritation and soreness in throat and nose. In extreme exposures some congestion may occur. **Eyes:** temporary irritation or inflammation. Not hazardous when ingested.

**6.5 Medical conditions generally aggravated by exposure:**

Pre-existing upper respiratory and lung diseases such as but not limited to bronchitis, emphysema, and asthma.

**6.6 Emergency First aid procedures:**

**EYES:** Flush thoroughly with water for 15 minutes. If irritation persists, consult physician.

**SKIN:** Wash with mild soap and water. A commercially available hand lotion may be used to treat dry skin areas. If skin has become cracked, take appropriate action to prevent infection and promote healing.

**INHALATION:** Remove to fresh air. Leave the area of dust exposure and remain away until coughing and other symptoms subside. Other measures are usually not necessary, however if conditions warrant, contact physician.

**INGESTION:** No harmful effects expected. No specific recommendations. If gastric disturbance occurs, call physician.

This product contains gypsum **plaster**. **Plaster** of Paris hardens when wetted and, if ingested, may result in obstruction of the gut, especially the pyloric region.

**TARGET ORGANS:** Eyes, skin, and respiratory system.

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## **SECTION VII – Precautions for Safe Handling**

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**7.1 Steps to be taken in case material is released or spilled:**

Vacuum dust with equipment fitted with a HEPA filter. Use dust suppression such as water if sweeping is necessary. Sweep up spilled material and place in closed containers for disposal.

**7.2 Waste Disposal methods:**

Dispose of in accordance with Federal, State and Local regulations

**7.3 Precautions to be taken in handling and storage:**

Minimize dust generation and accumulation. Avoid breathing dust, avoid contact with eyes. Reclose packages and containers immediately. Continue to follow all MSDS/label warnings when handling empty containers. Observe normal warehouse handling procedures. Store in a cool dry area. Store away from foodstuffs and beverages.

**7.4 Other precaution:**

The avoidance of any air contaminant is always a recommended practice. Adherence to work place ventilation standards is an assurance of general personal health and comfort.

When mixed with water, this material hardens and then slowly becomes hot.

**DO NOT attempt to make a cast enclosing any part of the body using this material. Failure to follow these instructions can cause severe burns that may require surgical removal of affected tissue or amputation of limb. Dust may cause eye, nose, throat, or respiratory irritation. Avoid dust inhalation and exposure to dust. If dusty, wear a NIOSH/MSHA-approved dust respirator. Use proper ventilation to reduce dust exposure. Wear eye protection. If eye contact occurs, flush thoroughly with water for 15 minutes. If irritation persists, call physician. Do not ingest. If ingested and any discomfort occurs, call physician.**

**KEEP OUT OF REACH OF YOUNG CHILDREN**

**SECTION VII – Control Measure / Personal Protection**

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- 8.1 Respiratory protection:** Recommended NIOSH approved nuisance dust mask. <10X PEL, use 3M 9900; <100X PEL, use MSA Ultra-twin with H Filter; <200X PEL, use MSA 01-00-06 with type C supplied for air unit (continuous flow mode); or equivalent.
- 8.2 Ventilation:** Use sufficient natural or mechanical ventilation to keep dust level below PEL.
- 8.3 Protective gloves:** Rubber gloves
- 8.4 Eye protection:** Goggles or safety glasses with shields
- 8.5 Other protective clothing or equipment:** Rubber apron
- 8.6 Work/Hygienic practices:** Avoid dusting when in use. Observe normal care when working with chemicals.

NFPA – National Fire Protection Association  
N/A – Not Applicable  
N/E – Not Established

NFPA HAZARD CLASSIFICATIONS	
Health	0
Flammability	0
Reactivity	0
Specific Hazard	N/A

**ARTMOLDS 1003 8-28-02**

