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GHS Safety Data Sheets

The Mystery of Lyle and Louise Footprint Analysis

This document contains GHS safety data sheets for the following kit items:

- **Dental Stone**
- **Plaster of Paris**

Safety Data Sheet

Crosscutting Concepts, LLC · P.O. Box 349 · Huntington, WV 25708

Phone: 888-221-4344 · Fax: 888-221-4344, Ext. 804

Section 1 - Chemical Product and Company Identification

Name: Dental Casting Stone
Common Synonyms: Die stone, casting powder

Chemtrec Phone: 800-424-9300
National Response Center 800-424-8802

Product Use: Laboratory Reagent

Section 2 - Hazard Identification

SKIN CORROSION/IRRITANT Category 3: WARNING, Causes mild skin irritation

Transportation symbol: N/A

Emergency Overview

CAUTION! A natural chemical reaction during hardening (rehydration) develops sufficient heat that may cause severe burns in the event of contact with skin. These burns may possibly result in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Crushing, mixing, sanding, or otherwise working with this product may generate large amounts of dust. Dust can be irritating to the eyes, skin, and respiratory system.

Warning: May be harmful if swallowed or inhaled. Can cause burning to skin and eyes.

Effects of overexposure: N/A

Target organs: N/A

Section 3 - Composition / Information on Ingredients

<u>Ingredient</u>	<u>CAS No.</u>	<u>Percent</u>
Gypsum (Calcium Sulfate)	10101-41-4	95%
Crystalline Silica (Quartz)	14808-60-7	5%

Section 4 - First Aid Measures

INGESTION: May result in obstruction or temporary irritation of the digestive tract. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Dust may cause respiratory tract irritation. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SKIN CONTACT: Skin contact during hardening (rehydration) may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Handling can cause dry skin. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

EYE CONTACT: Dust may cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

Section 5 - Fire-Fighting Measures

Not flammable by OSHA/WHMIS criteria

Fire Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special Information: In the event of a fire, wear full protective clothing and self-contained breathing apparatus.

Explosion data: Not applicable

Hazardous combustion products: May include, and are not limited to: calcium oxide and sulfur dioxide.

Flash Point: Non-flammable.

Autoignition temperature: N/A

Explosion Limits: Lower: N/A Upper: N/A
Section 6 - Accidental Release Measures
Use personal protection recommended in Section 8. Keep unnecessary personnel away from the release. Keep out of drains, sewers, ditches, and waterways. Contain the spill, then place in a suitable container. Minimize dust generation. Sweep up or gather material and place in appropriate container for disposal.
Section 7 - Handling and Storage
Read label on container before using. Do not wear contact lenses when working with chemicals. Keep container tightly closed. For laboratory use only. Not for drug, food or household use. Keep out of reach of children. Handling: Avoid contact with skin and eyes. Use only in well-ventilated areas. Handle and open container with care. Wear appropriate NIOSH approved dust mask or filtering face piece if dust is generated. Do not eat or drink while using the product. Wash hands before eating, drinking, or smoking. Storage: Keep the container tightly closed and dry. Store in a covered, dry, climate controlled area, away from incompatibles.
Section 8 - Exposure Controls / Personal Protection
Airborne Exposure Limits: OSHA Permissible Exposure Limit (PEL): No information found ACGIH Threshold Limit Value (TLV): No information found ACGIH Biological Exposure Indices (BEI): No information found NIOSH Recommended Exposure Limit (REL): No information found Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Personnel should wear safety glasses, goggles, or face shield, lab coat or apron, appropriate protective gloves, fire extinguishing material. Use adequate ventilation to keep airborne concentrations low. Respiratory protection: A NIOSH approved dust mask or filtering face piece is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator
Section 9 - Physical and Chemical Properties
Appearance: Off-white/grey powder Odor: mild Odor Threshold: No information found pH: 6-10 Melting Point: No information found Boiling Point: No information found Flash Point: No information found Evaporation Rate (BuAc=1): No information found Flammability: Not flammable Flammability/explosive limits: No information found Vapor Density (Air=1): No information found Vapor Pressure (mm Hg): No information found Relative Density/Specific Gravity: 2.3-2.7 Solubility: No information found Partition Coefficient: No information found. Auto-ignition Temperature: No information found. Decomposition Temperature: No information found. Viscosity: No information found.
Section 10 - Stability and Reactivity
Reactivity: Nonreactive Chemical stability: Stable under ordinary conditions. Rapidly absorbs water from air. Hazardous Reactions: No information found Conditions to avoid: Temperatures above 250°C (482°F) and water. Incompatible materials: No information found Hazardous decomposition products: Carbon dioxide and carbon monoxide may form when heated to

decomposition.

Hazardous polymerization: Will not occur.

Section 11 - Toxicological Information

When released into the soil, this material may biodegrade to a moderate extent. Not considered harmful to aquatic life.

Section 12 - Ecological Information

This material is a strongly acidic aqueous solution and may cause adverse environmental effects. When diluted with a large amount of water, this material released directly or indirectly, is not expected to have a significant impact.

Section 13 - Disposal Considerations

This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

Section 14 - Transport Information

This product is not regulated as a hazardous material by the United States (DOT) transportation regulations. This product is not regulated as dangerous goods by the Canadian Transportation of Dangerous Goods (TDG) Requirements.

Section 15 - Regulatory Information

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories: Immediate Hazard- Yes; Delayed Hazard- No, Fire Hazard- No, Pressure Hazard- No, Reactivity Hazard- No.

Section 302 extremely hazardous substance: No

Section 311 hazardous chemical: Yes

Section 313 hazardous chemical: No

WHMIS status Non-controlled

Canadian regulations

CRYSTALLINE SILICA (QUARTZ)* (CAS # 14808-60-7)

Canada - WHMIS - Ingredient Disclosure List 1 %

Section 16 - Other Information

Updated May 22, 2015

WHMIS: SDS prepared according to hazard criteria of controlled products regulations (CPR) and SDS contains all information required by CPR.

The above information has been developed based upon currently available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or for the consequences of its use or misuse. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Crosscutting Concepts, LLC shall not be held liable for any damage resulting from handling or from contact with the above product.

Safety Data Sheet

Crosscutting Concepts, LLC · P.O. Box 349 · Huntington, WV 25708

Phone: 888-221-4344 · Fax: 888-221-4344, Ext. 804

Section 1 - Chemical Product and Company Identification

Name: Calcium Sulfate

Common Synonyms: Plaster of Paris, Dried gypsum

Chemical Formula: $\text{CaSO}_4 \frac{1}{2} \text{H}_2\text{O}$

Chemtrec Phone: 800-424-9300

National Response Center (emergency use): 800-424-8802

Product Use: Laboratory Reagent

Section 2 - Hazard Identification

Emergency Overview

SKIN CORROSION/IRRITATION Category 3. Warning: Causes mild skin irritation. Causes irritation to eyes and respiratory tract. May be harmful if swallowed.

Effects of overexposure:

Inhalation: Causes irritation to respiratory tract.

Ingestion: May cause obstruction in stomach, as it hardens with moisture.

Skin Contact: Causes irritation, redness, and pain.

Eye Contact: Causes irritation, redness, and pain.

Chronic Exposure: No information found.

Aggravation of Pre-existing Conditions: No information found.

Section 3 - Composition / Information on Ingredients

<u>Ingredient</u>	<u>CAS No.</u>	<u>Percent</u>
Calcium Sulfate	10101-41-4	100%

Section 4 - First Aid Measures

Inhalation: Remove to fresh air. Do not breathe dust. Drink water to clear throat. Blow nose to evacuate dust. Get medical attention for any breathing difficulty.

Ingestion: If swallowed, induce vomiting immediately after giving two glasses of water.

Skin Contact: Immediately flush skin with plenty of water and soap. Wash contaminated clothing and shoes before reuse.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Seek medical attention immediately.

Section 5 - Fire-Fighting Measures

Fire: Not considered to be a fire hazard.

Explosion: Not considered to be an explosion hazard.

Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Special Information: Use protective clothing and breathing equipment appropriate for the surrounding fire.

Section 6 - Accidental Release Measures

Ventilate Area. Wear appropriate personal protective equipment as specified in Section 8.

Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust.

Section 7 - Handling and Storage

Handling Procedures and Equipment: Keep in a tightly closed container. Protect against physical damage.

Containers of this material may be hazardous when empty, since they retain product residues. Observe warnings/precautions list.

Storage requirements: Cool, dry, ventilated area.

Section 8 - Exposure Controls / Personal Protection

OSHA Permissible Exposure Limit: None established

ACGIH Threshold Limit Value: None established

Airborne Exposure Limits: None established.

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved): For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator.

WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection: Gloves and lab coat, apron or coveralls.

Eye Protection: Use chemical safety goggles with side shields. Maintain eye wash fountain and quick-drench facilities in work area.

Other Control Measures: There is insufficient data in the published literature to assign complete numerical SAF-T-DATA* ratings and laboratory protective equipment for this product. Special precautions must be used in storage, use and handling. Protective equipment for laboratory bench use should be chosen using professional judgment based on the size and type of reaction or test to be conducted and the available ventilation, with overriding consideration to minimize contact with the chemical.

Section 9 - Physical and Chemical Properties

Appearance: White granules or powder

Odor: No odor

Odor Threshold: N/A

pH: No information found.

Melting Point: > 300C (> 572F)

Boiling Point: No information found.

Flash Point: No information found.

Evaporation Rate (BuAc=1): No information found.

Flammability: Nonflammable

Flammability/explosive limits: No information found.

Vapor Pressure (mm Hg): No information found.

Vapor Density (Air=1): No information found.

Relative Density: 2.5

Solubility: Slight, 0.3g per 100g water at standard conditions

Partition Coefficient: No information found.

Auto-ignition Temperature: No information found.

Decomposition Temperature: No information found.

Viscosity: N/A

Section 10 - Stability and Reactivity

Reactivity: No information found.

Stability: Stable under ordinary conditions of use and storage. Very hygroscopic.

Hazardous Reactions: No information found.

Conditions to Avoid: Air, moisture, and incompatible materials.

Incompatible Materials: Diazomethane, aluminum, phosphorous

Hazardous Decomposition Products: Burning may product sulfur oxides.

Hazardous Polymerization: Will not occur.

Section 11- Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure.

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal. Dispose of container and unused contents in accordance with federal, state, and local requirements.

Section 14 - Transport Information

Not regulated.
US Customs Number: 28332900006

Section 15 - Regulatory Information

Cercla: No
SARA 311/312
Acute: Yes
Chronic: No
Fire: No
Pressure: No
Reactivity: No
SARA 313: No
TSCA: All ingredients of this material listed on TSCA inventory
TSCA 8: No
TSCA 12: No

Section 16 - Other Information

Updated May 25, 2015

WHMIS: SDS prepared according to hazard criteria of controlled products regulations (CPR) and SDS contains all information required by CPR and GHS.

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