

# MATERIAL SAFETY DATA SHEET

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**SECTION 1: PRODUCT and COMPANY IDENTIFICATION**

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**Arch Chemicals, Inc.**

501 Merritt 7 PO Box 5204  
Norwalk, CT 06856-5204  
For MSDS Questions: 1-800-511-MSDS  
Emergency telephone: (800) 654-6911

Issue Date: 12/17/98  
MSDS No.: 150000020274  
Rev: A  
PC:

For a transport accident or leak, fire or major spill, call **CHEMICAL EMERGENCY RESPONSE CENTER** (800) 424-9300.

**Material Name:** Calcium Hardness UDV  
**Product Name:** Calcium Hardness, UDV

*Read the entire MSDS for a complete hazard assessment.*

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**SECTION 2: COMPOSITION/INFORMATION on INGREDIENTS\***

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<u>CAS Number</u>	<u>% Conc<sup>+</sup></u>	<u>Ingredient Name</u>
Proprietary	80.0	Proprietary Ingredient
010043-35-3	15.0	Boric acid
001310-65-2	< 2.0	Lithium hydroxide

\*Ingredients not precisely identified are either proprietary or nonhazardous.  
Values are not product specifications. <sup>+</sup> Percent concentration by weight.

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**SECTION 3: HAZARDS IDENTIFICATION\***

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\*As defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
See Section 8 for exposure guidelines & Section 11 for toxicology and ingredient specific information.

\*\*\*\*\* **EMERGENCY OVERVIEW** \*\*\*\*\*

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OFF WHITE POWDER. NO ODOR.  
NO PHYSICAL HAZARDS.  
EYE CORROSIVE. CORROSIVE TO THE  
GASTROINTESTINAL TRACT. CORROSIVE TO THE  
RESPIRATORY TRACT. SKIN CORROSIVE  
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**POTENTIAL HEALTH HAZARDS**

Eye: This product contains a component(s) which is eye corrosive.

Skin: This product contains a component(s) which is skin corrosive.

Inhalation: Particulates of this material are probably corrosive to respiratory passages, and may cause ulcerations of nose, throat and larynx. May lead to pulmonary edema, chemical pneumonia and death.

Ingestion: In humans, irritation or chemical burns of the mouth, pharynx, esophagus, and stomach can develop following ingestion of this material. Injury may be severe and cause death.

Medical Conditions Aggravated by Exposure: Respiratory conditions.

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**SECTION 4: FIRST AID MEASURES**

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General First Aid Procedures

Eyes:

Immediately flush the eyes with large quantities of running water for a minimum of 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eye and lids with water. Do not attempt to neutralize with chemical agents. Obtain medical attention as soon as possible. Oils or ointments should not be used at this time. Continue the flushing for an additional 15 minutes if a physician is not immediately available.

Skin:

Remove contaminated clothing and footwear while under a safety shower. Wash off of skin with plenty of soap and water. Get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

Ingestion:

DO NOT INDUCE VOMITING. Give one or two glasses of water to drink and refer to medical personnel or take direction from either a physician or a poison control center. Never give anything by mouth to an unconscious person.

Inhalation:

Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is labored, give oxygen. Consult medical personnel.

Note to Physician:

Mucosal injury following ingestion of this potentially corrosive material contraindicates the induction of vomiting.

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**SECTION 5: FIRE FIGHTING MEASURES**

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Flammable Properties

Flash Point: Not applicable  
Upper Flammability Limit (UEL): No Data  
Lower Flammability Limit (LEL): No Data  
Autoignition Temperature: No Data

Products of combustion:

Combustion products: Unknown.

Extinguishing media:

Water fog, foam, carbon dioxide, dry chemical, halogenated agents.

Fire fighting instructions:

Wear self-contained breathing apparatus with full facepiece and full protective clothing. If contact occurs with material or its solutions, immediately flush with water and remove contaminated clothing.

Unusual fire and explosion hazards:

Possible toxic smoke, vapors, fallout and runoff water can result from fires depending on extent of combustion and presence of other combustible materials. Contaminated buildings, areas, and equipment must be properly decontaminated before reuse.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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Spill procedures:

Ventilate spill area.  
Wear skin, eye, and respiratory protection during cleanup.  
Recover material into a chemical waste container. Do not mix or contaminate with incompatible materials. Cover container and remove from work area.

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**SECTION 7: HANDLING and STORAGE**

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Handling:

Avoid breathing particulates.  
Prevent skin and eye contact.

Storage:

Store tightly closed, away from heat and moisture  
Store in a cool area with good ventilation.

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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Exposure guidelines:

No ACGIH TLV or OSHA PEL assigned to this product. Minimize exposure in accordance with good hygiene practice.

The American Industrial Hygiene Association has established a Workplace Environmental Exposure Level (WEEL) for lithium hydroxide of 1 mg/m<sup>3</sup> ceiling, as an 8-hour TWA.

Engineering controls:

Use permitted ventilation adequate to maintain safe levels.

PROTECTIVE EQUIPMENT

Respiratory protection:

Use NIOSH certified full facepiece respirator for dusts where exposure to the dust may occur.

Protective clothing:

Take all precautions to prevent skin contact. Use gloves, arm covers and apron determined to be impervious under the conditions of use. Additional protection, such as full body suit and boots, may be required depending on conditions.

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Wash separately from other laundry.

Eye protection:  
Chemical tight goggles and full faceshield.

Other:  
Eyewash station and safety shower in work area.

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**SECTION 9: PHYSICAL and CHEMICAL PROPERTIES**

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Physical State: Powder  
Appearance: Off white  
Odor: None  
Odor Threshold: No Data  
Boiling Point: No Data  
Decomposition Temperature: No Data  
Melting Point: No Data  
Vapor Pressure (mm Hg at 20°C): No Data  
Vapor Density (air = 1): No Data  
Solubility in Water: Soluble  
Solubility in Other: No Data  
Octanol/Water Partition Coefficient: No Data  
pH: ~ 8.50 (aqueous slurry)  
Specific Gravity: No Data  
Bulk Density: No Data  
% Volatile by Volume: No Data  
VOC (%): No Data  
Viscosity: No Data

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**SECTION 10: STABILITY and REACTIVITY**

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Chemical Stability  
Stable under normal conditions.

Conditions to avoid:  
Stable.

Incompatibility:  
Alkalis.

Hazardous polymerization:  
Not known to occur.

Hazardous decomposition products:  
Unknown.

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**SECTION 11: TOXICOLOGICAL INFORMATION**

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Regulated carcinogen(s):  
This product contains no components present at concentrations equal to or greater than 0.1% listed by IARC, OSHA, NTP or ACGIH as a carcinogen.

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**SECTION 12: ECOLOGICAL INFORMATION**

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Ecotoxicity:  
No Data

Environmental fate:  
No Data

Other:  
No Data

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**SECTION 13: DISPOSAL CONSIDERATIONS**

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Disposal method:  
Dispose of properly.

Container disposal:  
Empty container retains potentially hazardous residue. Observe all hazard precautions. May contain corrosive material. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

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**SECTION 14: TRANSPORT INFORMATION**

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Not regulated by the US DOT.

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**SECTION 15: REGULATORY INFORMATION**

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TSCA (Toxic Substances Control Act):  
All ingredients are on the TSCA Chemical Substances Inventory.

SARA Title III (Emergency Planning and Community Right-To-Know Act):  
313 Reportable ingredients:  
This product does not contain any chemicals subject to the reporting requirements of SARA Section 313.

California Proposition 65:  
WARNING. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canadian Regulations:  
CEPA (Canadian Environmental Protection Act): All ingredients NOT confirmed on the DSL (Domestic Substances list).

WHMIS Classifications:  
Class E -- Corrosive material (CPR62).  
Class D, Division 2B, Toxic.

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**SECTION 16: OTHER INFORMATION**

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We assigned NFPA and HMIS ratings to this product based on the hazards of its ingredient(s). Because the customer is most aware of the application of the product, he must ensure that the proper personal protective equipment (PPE) is provided consistent with information contained in the product MSDS.\*

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MSDS (continued) Calcium Hardness UDV

NFPA Rating:

Health: 3  
Fire: 0  
Reactivity: 0  
Special: No Data

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HMIS Rating:

Health: 3  
Fire: 0  
Reactivity: 0  
\*\*Personal Protection: No Data

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\*This information is intended solely for the use of individuals trained in the particular hazard rating system.

\*\*See appropriate MSDS section.

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Revision status:

Version number: 0010  
MSDS Version date: 12/17/98  
Revision: No Data

Issue date: 12/17/98  
Revision:

The information herein is given in good faith but no warranty, expressed or implied, is made.

Prepared by: TLW/EL  
Approved by: TW/KRB/RH  
Approval date: 12/14/98

THE PRODUCT NAMES LISTED ARE TRADEMARKS OF ARCH CHEMICALS, INC. OR ITS AFFILIATED COMPANIES.

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This MSDS was prepared by the Safety, Health and Environment Group of at 501 Merritt, Norwalk, CT 06856. For further questions, call during regular business hours at 1-800-511-MSDS.