



MATERIAL SAFETY DATA SHEET

Product Name: Calcium Hardness
Product id: AQZCC004 / AQZCC015 / AQZCC025
Revision date: 12/20/2006 **Revision: 1**

1. Identification of the substance & the company

Chemical name Calcium Chloride
Chemical family Inorganic salts
Supplier W.W. Adcock
P.O. Box 492
Huntingdon Valley, PA 19006
(215)947-3801
Emergency Transportation Chem Tel - 888-255-3924

2. Composition / information on ingredients

Components CAS	Weight %	ACGIH-TLV Data	OSHA (PEL) Data
CALCIUM CHLORIDE 10043-52-4	94-97	Not determined	Not determined
SODIUM CHLORIDE 7647-14-5	1-2	Not determined	Not determined
POTASSIUM CHLORIDE 7447-40-7	2-3	Not determined	Not determined
Water 7732-18-5	0-2	Not determined	Not determined

3. Hazards identification

Emergency overview *White to off-white pellets. Odorless.
Irritant to eyes
May cause skin irritation*

Potential Health Effects:

- **Eye Contact** Pellets may cause mild irritation to the eyes. Dusts may cause severe irritation with corneal injury. Effects may be slow to heal. When dissolving, the heat produced may cause more intense effects as well as thermal burns.
- **Skin contact** Short single exposure not likely to cause significant skin irritation. Prolonged or repeated exposure may cause skin irritation even a burn. May cause more severe response if skin is damp or if material is confined to skin.
- **Inhalation** Vapors are unlikely due to physical properties. Dust may cause irritation to upper respiratory tract.



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6. Accidental release measures

Personal precautions	Wear appropriate safety clothing and eye/face protection (see Section 8) Slipping hazard due to spilled product
Methods for cleaning up	Small spills: contain spilled material if possible. Collect in suitable and properly labeled containers. Large spills: Dike area to prevent spill from spreading. Collect in suitable and properly labeled containers. Wash spill site with water after material pickup is complete.
Environmental precautions	Prevent from entering into soil, ditches, sewers waterways and/or groundwater.

7. Handling and storage

Handling	Avoid producing or diffusing dust into the air. Avoid bodily contact. Heat developed during diluting or dissolving is very high. Use cool water (temperature less than 80°F, 27°C)
Storage	Keep containers tightly closed. Keep in a dry place. Do not store in zinc.

8. Exposure controls / personal protection

Ventilation requirements	Use local exhaust as necessary, especially under dusty conditions. Ventilation must be sufficient to maintain TLV-TWA below 10 mg/m ³ (ACGIH recommendation for Particulates (Insoluble) Not Otherwise Specified (PNOS)).
Personal protective equipment:	
- Respiratory protection	Not normally required; In case of dust formation use an approved particulate respirator.
- Hand protection	Protective gloves
- Eye protection	Safety glasses or goggles
- Skin and body protection	Body covering clothes and boots
Hygiene measures	Safety shower and eye bath should be provided. Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking

9. Physical and chemical properties



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Appearance	White pellets, odorless
Melting point/range	~772°C (1424°F)
Boiling point/range	>815°C
Vapor pressure	<0.005 mmHg (20°C)
Vapor density	Not applicable
Solubility:	
- Solubility in water	Soluble
Specific gravity	2.2
Decomposition temperature	Not available
Partition coefficient (n-octanol/water)	Not applicable

10. Stability and reactivity

Stability	Hygroscopic. Stable under normal conditions
Materials to avoid	Flammable hydrogen may be generated from contact with metals such as: zinc, sodium. Heat is generated when mixed with water. Spattering and boiling can occur. Corrosive when wet. Avoid contact with sulfuric acid.
Conditions to avoid	Exposure to moisture
Hazardous decomposition products	None
Hazardous polymerization	Will not occur

11. Toxicological information

Acute toxicity:	
- Rat oral LD50	967-1668 mg/kg
- Rabbit dermal LD50	> 5000 mg/kg
Chronic toxicity	Not available
Mutagenicity	For Calcium Chloride, in vitro genetic toxicity studies were negative.
Carcinogenicity	Not classified by IARC. Not included in NTP 11th Report on Carcinogens.

12. Ecological information

Note:	Based largely or completely on data for major component. Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50 >100 mg/L in most sensitive species).
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Persistence and degradability Inhibitory concentration (IC50) in OECD Activated Sludge Respiration Inhibition Test is greater than 1000 mg/L

13. Disposal considerations

Waste disposal Do not dump into sewers, on the ground, or into any body of water.
Observe all federal, state and local environmental regulations when disposing of this material.

14. Transportation information

DOT	Not regulated
IMO	Not regulated
ICAO/IATA	Not regulated

15. Regulatory information

USA	Reported in the EPA TSCA Inventory
Sara 313	This product does not contain a chemical listed at or above de minimis concentrations.
Sara (311, 312) hazard class	This product is categorized as an immediate health hazard.
- Pennsylvania right to know list	Listed
- WASTE CLASSIFICATIONS	Not listed under CERCLA
- Workplace Classification	This product is considered hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200).
Canada	Listed in DSL
WHMIS hazard class	D2B toxic materials

16. Other information



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End of safety data sheet