

# MATERIAL SAFETY DATA SHEET

Calcium Chloride Dihydrate

## SECTION 1 . Product and Company Identification

Product Name and Synonym: Calcium Chloride Dihydrate  
Product Code: C0630  
Material Uses:  
Manufacturer: Science Stuff  
1104 Newport Ave  
Austin, TX 78753  
(512) 837-6020  
Entry Date : 3/20/2013  
Print Date: 3/20/2013  
24 Hour Emergency Assistance : Chemtrec 800-424-9300  
Canutec 613-996-6666

Health:	2
Flammability:	0
Reactivity:	1
Hazard Rating: Least Slight Moderate High Extreme 0 1 2 3 4 NA=Not Applicable NE=Not Established	

## SECTION 2 HAZARD IDENTIFICATION

May be harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

Physical state: Solid. [Powder or flakes. Granular solid.]

Odor: Odorless.

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview:

**WARNING!**  
CAUSES SEVERE EYE IRRITATION.  
CAUSES RESPIRATORY TRACT AND SKIN IRRITATION.

Do not get in eyes or on skin or clothing.  
Avoid breathing dust.  
Keep container tightly closed and sealed until ready for use. Use only with adequate ventilation. Wash thoroughly after handling.

Routes of entry:  
Dermal contact. Eye contact. Inhalation. Ingestion.

Medical conditions aggravated by over-exposure: None known  
Potential acute health effects:

Eyes: Severely irritating to eyes. Risk of serious damage to eyes.  
Skin: Irritating to the skin.  
Inhalation: Irritating to respiratory system.  
Ingestion: Ingestion may cause gastrointestinal irritation and diarrhea  
Carcinogenicity: No known significant effects or critical hazards.  
Mutagenicity: No known significant effects or critical hazards.  
Teratogenicity/ Reproductive toxicity: No known significant effects or critical hazards.  
Developmental effects: No known significant effects or critical hazards.  
Fertility effects: No known significant effects or critical hazards.

## SECTION 3 MIXTURE COMPONENTS

Calcium Chloride Dihydrate

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input type="checkbox"/>	Calcium Chloride Dihydrate	CAS# 10035-04-8	100%	W/W	TXDS: LD• <input type="checkbox"/> (rat): 1.4 g/Kg

**SECTION 4 FIRST AID MEASURES**

May be harmful if swallowed. May cause irritation. Avoid breathing vapors, or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

FIRST AID: SKIN: Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person.

**SECTION 5 FIRE FIGHTING MEASURES**

Fire Extinguisher Type: Any means suitable for extinguishing surrounding fire

Fire / Explosion Hazards: None Known.

Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

Sweep up and place in suitable (fiberboard) containers for reclamation or later disposal.

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personal from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

**SECTION 7 HANDLING AND STORAGE**

Store in a cool, dry, well-ventilated place away from incompatible materials. Wash thoroughly after handling.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

Respiratory Protection: Dust mask

Ventilation

Local Exhaust

## Calcium Chloride Dihydrate

	Mechanical <input checked="" type="checkbox"/>
Protective Gloves:	Wear appropriate gloves to prevent skin exposure
Eye Protection:	Goggles
Other Protective Equipment:	Wear appropriate clothing to prevent skin exposure

Engineering measures: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal Protection

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

safety glasses with side-shields

Skin: Personal protective equipment for the body should be selected based on the task being performed and risks involved and should be approved by a specialist before handling this product.

Body recommended:

lab coat

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Recommended: nitrile rubber

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point:	260 Deg. C	Percent Volatile by Volume:	N/A
Boiling Point:	>1600 Deg. C	Evaporation Rate	N/A
Vapor Pressure:	N/A	Evaporation Standard	
Vapor Density:	N/A	Auto Ignition Temp	Not applicable
Solubility in Water:	Very	Lower Flamm. Limit in Air	Not applicable

Calcium Chloride Dihydrate

Exothermic

Appearance /Odors: White flakes, Upper Flamm. Limit in Air Not applicable  
no odor

Flash Point: N/A

Specific Gravity: 0.835

**SECTION 10 STABILITY AND REACTIVITY INFORMATION**

Stability: Stable

Conditions to Avoid: Avoid contact with incompatible materials.

Materials to Avoid: Water, aluminum, zinc, brass, methyl vinyl ether

Hazardous Decomposition Products: Chlorine and hydrogen chloride fumes

Hazardous polymerization: Will Not Occur

Conditions to Avoid: None known

**SECTION 11 Toxicological Information**

Carcinogenic effects: : No known significant effects or critical hazards  
Mutagenic effects: No known significant effects or critical hazards  
Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards

**SECTION 12 Ecological Information**

Environmental effects : No known significant effects or critical hazards.  
Other adverse effects : No known significant effects or critical hazards.

**SECTION 13 Disposal Considerations**

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

**SECTION 14 Transport Information**

DOT Classification: Not Regulated

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

**SECTION 15 Regulatory Information**

United States

HCS Classification:  
Irritating material

U.S. Federal regulations:

United States inventory (TSCA 8b): listed  
TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.  
SARA 302/304/311/312 extremely hazardous substances: No products were found.  
SARA 302/304 emergency planning and notifications: No products were found.  
SARA 302/304/311/312 hazardous chemicals: Calcium Chloride, Dihydrate  
SARA 311/312 MSDS distribution- Chemical inventory- hazard identification: Calcium Chloride, Dihydrate  
Immediate (acute) health hazard, Delayed (chronic) health hazard  
Clean Water Act (CWA) 307: No products were found.  
Clean Water Act (CWA) 311: No products were found.  
Clean Air Act (CAA) 112 accidental release prevention: No products were found.  
Clean Air Act (CAA) 112 regulated flammable substance: No products were found.

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Clean Air Act (CAA) 112 regulated toxic substance: No products were found.

DEA List I Chemicals : not listed  
(Precursor Chemicals)  
DEA List II Chemicals : not listed  
(essential Chemicals)

Canada  
WHMIS (Canada) : Class D-2B: Material causing other toxic effects (Toxic).  
Canadian lists :  
CEPA DSL/ CEPA NDSL : CEPA DSL: Calcium Chloride

**SECTION 16 Additional Information**

Flammability

Health

Reactivity

Revisions

NFPA

0.1

The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material can be used safely.