# **Material Safety** DATA SHEET

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For chemical emergency spill, leak, fire, exposure or accident call (CHEMTREC) 800-424-9300. This MSDS complies with 29 CFR 1919.1200 (The Osha Hazard Communication Standard).

#### **Section 1: Identification**

**Product / Chemical Name:** 

Moisture Test Kit / Calcium chloride, Anhydrous

Product Identification No: Calcium chloride, Anhydrous

**Chemical Family: N/A** 

Trade Name and Synonyms: Calcium chloride, Anhydrous

Molecualar Weight: N/A

**Chemical Name:** Calcium Chloride, Anhydrous

Chemical Formula: CaCl2

**Material Use:** 

**Distributor Name:** 

Alpha Professional Tools®

**Address:** 

103 Bauer Drive, Oakland, NJ 07436

**Emergency Tel. No.:** 

800-648-7229

## Section 2: Hazard(s) Identification

#### **Potential Acute Health Effects**

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

#### **Toxicological Data on Ingredients Calcium chloride, Anhydrous:**

ORAL (LD50): Acute: 1000 mg/kg [Rat]. 1940 mg/kg

[Mouse].

**Potential Chronic Health Effects** 

CARCINOGENIC EFFECTS: Not available. **MUTAGENIC EFFECTS:** Not available. TERATOGENIC EFFECTS: Not available. **DEVELOPMENTAL TOXICITY:** Not available.

The substance may be toxic to heart,

cardiovascular system, eyes.

Repeated or prolonged exposure to the substance can

produce target organs damage.

# Section 3: Composition/Information on Ingredients

The composition of these products is considered a trade secret. Specific components in these products will be revealed to qualified health professionals. The exposure limits given are those of the most limiting components.

**Hazardous Ingredients** 

C.A.S.N.A. or **U.N. Numbers** 

10043-52-4 100%

Calcium chloride, Anhydrous

#### **Section 4: First-Aid Measures**

% by Weight

**Eye Contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least15 minutes. Cold water may be used. Get medical attention.

**Skin Contact:** In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Inhalation: Not available.

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

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# Section 5: Fire-Fighting Measures

**Flammability of the Product:** Non-flammable. **Auto-Ignition Temperature:** Not applicable.

Flash Points: Not applicable.
Flammable Limits: Not applicable.
Products of Combustion: Not applicable.

Fire Hazards in Presence of Various Substances:

Not applicable.

#### **Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of

mechanical impact: Not available.

Risks of explosion of the product in presence

of static discharge: Not available

**Special Remarks on Fire Hazards:** Not available.

Special Remarks on Explosion Hazards: Furan-2-peroxy-

carboxylic acid + calcium chloride causes explosion

at room temperature.

### **Section 6: Accidental Release Measures**

**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:** Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

#### **Section 7: Handling and Storage**

Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label.

Keep container tightly closed. Keep container in a cool, well-ventilated area. Hygroscopic.

Avoid contact with skin and eyes. Keep away from incompatibles such as moisture.

# **Section 8: Exposure Controls/Personal Protection**

Exposure Limits TWA: 5 (mg/m3) [Canada]

**Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:** Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:** Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### **Section 9: Physical and Chemical Properties**

**Physical state and appearance** Solid. (Granular solid. Solid pellet. Crystalline powder. Crystalline solid.)

Odor: Odorless.

Taste: Saline.

Color: Colorless. White. Off-white. Molecular Weight: 110.99 g/mole pH (1% soln/water): 9 [Basic.] Boiling Point: 1670°C (3038°F) Melting Point: 772°C (1421.6°F) Critical Temperature: Not available.

Specific Gravity: 2.15 (Water = 1)
Vapor Pressure: Not available.
Vapor Density: Not available.
Volatility: Not available.
Odor Threshold: Not available.
Water/Oil Dist. Coeff.: Not available.

**Ionicity (in Water):** Not available. **Dispersion Properties:** See solubility in water, acetone. **Solubility:** Easily soluble in cold water, hot water, acetone.

Freely soluble in alcohol. Soluble in Acetic Acid.

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### **Section 10: Stability and Reactivity**

**Stability:** The product is stable.

**Instability Temperature:** Not available.

Conditions of Instability: Incompatible materials,

moisture.

Incompatibility with various substances: Reactive with

moisture.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

**Corrosivity:** Non-corrosive in presence of glass. **Special Remarks on Reactivity:** Hygroscopic.

Reacts violently (violent boiling) with water, generating heat. Forms flammable gases and evolves hydrogen when reacted with zinc. Solutions attack some metals. Generates heat and violent polymerization occurs when mixed with methyl vinyl ether. Bromine trifluoride reacts violently with and attacks calcium chloride.

#### Section 11: Toxicological Information

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

**Routes of Entry:** Inhalation. Ingestion.

Calcium chloride, Anhydrous:

ORAL (LD50):

Acute: 1000 mg/kg [Rat]. 1940 mg/kg [Mouse].

**Chronic Effects on Humans:** May cause damage to the following organs: heart, cardiovascular system, eyes.

Other Toxic Effects on Humans: Hazardous in case of skin

contact (irritant), of ingestion, of inhalation.

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

The substance may be toxic to heart,

cardiovascular system, eyes.

Repeated or prolonged exposure to the

substance can produce target organs damage.

**Special Remarks on Toxicity to Animals:** 

Lowest Published Lethal Dose: LDL [Rabbit] - Route: Oral;

Dose: 1384 mg/kg

#### **Special Remarks on Chronic Effects on Humans:**

May affect genetic material based on animal data.

May cause cancer (tumorigenic) based on animal data.

# Special Remarks on other Toxic Effects on Humans: Acute Potential Health Effects:

**Skin:** May cause severe irritation and possible burns, especially if skin is wet. Contact with dry skin causes mild irritation. Contact of solid with moist/wet skin or skin contact with strong solutions may cause marked irritation or possible burns.

**Eyes:** May cause severe irritation, possible transient corneal injury, and possible eye burns.

**Inhalation:** May cause severe irritation of the upper respiratory tract with pain, inflammation and possible burns. **Ingestion:** May be harmful if swallowed. May cause severe gastrointestinal (digestive) tract irritation with nausea, vomiting and possible burns. May affect cardiovascular system (cardiac disturbances, slow heart beat), behavior (seizures), metabolism, blood, and brain, respiration (rapid respiration)

Chronic Potential Health Effects: effects may be delayed.

### Section 12: Ecological Information (non-mandatory)

**Ecotoxicity:** Ecotoxicity in water (LC50): 100 mg/l 96 hours [Fish].

BOD5 and COD: Not available.

Products of Biodegradation: Possibly hazardous short term degradation products are not likely.

However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

#### Section 13: Disposal Considerations (non-mandatory)

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

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#### **Section 14: Transport Information (non-mandatory)**

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

**Special Provisions for Transport:** Not applicable.

**DOT (Pictograms):** 

### Section 15: Regulatory Information (non-mandatory)

Federal and State Regulations: TSCA 8(b) inventory: Calcium chloride, Anhydrous

**California Proposition 65 Warnings:** California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found. California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

**Other Regulations:** 

EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 233-140-8).

Canada: Listed on Canadian Domestic Substance List (DSL).

**China:** Listed on National Inventory.

Japan: Listed on National Inventory (ENCS).

Korea: Listed on National Inventory (KECI).

Philippines: Listed on National Inventory (PICCS).

**Australia:** Listed on AICS. **Other Classifications:** 

WHMIS (Canada): CLASS D-2B: Material causing other toxic effects (TOXIC).

**DSCL (EEC):** R36- Irritating to eyes. S22- Do not breathe dust. S24- Avoid contact with skin.

HMIS (U.S.A.): Health Hazard 2 - Fire Hazard 0 - Reactivity 1 - Personal Protection C

National Fire Protection Association (U.S.A.) Health 2 - Flammability 0 - Reactivity 2 - Specific hazard

#### **Section 16: Other Information**

MSDS Code C3248

References: Not available.

Other Special Considerations: Not available.

Validated by Sonia Owen on 5/28/2008.

Verified by Sonia Owen. Printed 6/26/2008.