

Material Safety Data Sheet

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Version 1.5
Regulation (EC) No 1907/2006

1 - Product and Company Information

Product Name CALCIUM CHLORIDE 95 %, GRANULATED,
 APPRO X. 2-10 MM, PURE
Product Number 12021

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2 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT
Irritating to eyes.

3 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
CALCIUM CHLORIDE	10043-52-4	233-140-8	017-013-00-2

Formula CaCl₂
Molecular Weight 110.99 AMU
Synonyms Calplus * Caltac * Dowflake * Liquidow * Peladow
 * Snomelt * Superflake anhydrous

4 - First Aid Measures

AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

AFTER SKIN CONTACT

In case of contact, immediately wash skin with soap and copious amounts of water.

AFTER EYE CONTACT

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

5 - Fire Fighting Measures

EXTINGUISHING MEDIA

Suitable: Noncombustible. Use extinguishing media appropriate to surrounding fire conditions.

SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed.

SPECIAL REQUIREMENTS: Moisture sensitive.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

9 - Physical and Chemical Properties

Appearance

Physical State: Solid

Color: White

Form: Crystals

Property

Value

At Temperature or Pressure

pH

N/A

BP/BP Range

1,670 °C

MP/MP Range

772 °C

Flash Point

N/A

Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	0.01 mmHg	20 °C
SG/Density	2.15 g/cm3	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

10 - Stability and Reactivity

STABILITY

Stable: Stable.

Conditions to Avoid: Exposure to moisture may affect product quality.

Materials to Avoid: Boron oxides, Strong acids, Zinc, Calcium oxide, Methyl vinyl ether, Calcium chloride is attacked by bromine trifluoride.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Hydrogen chloride gas, Calcium oxide.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

11 - Toxicological Information

RTECS NUMBER: EV9800000

ACUTE TOXICITY

LD50
Oral
Rat
1000 mg/kg

LD50
Intraperitoneal
Rat
264 MG/KG

LD50
Subcutaneous
Rat
2630 MG/KG

LD50
Intramuscular
Rat

25 MG/KG

LD50
Oral
Mouse
1940 mg/kg

LD50
Intraperitoneal
Mouse
210 MG/KG
Remarks: Behavioral:Change in motor activity (specific assay).
Behavioral:Convulsions or effect on seizure threshold.
Behavioral:Somnolence (general depressed activity).

LD50
Subcutaneous
Mouse
823 MG/KG

LD50
Intravenous
Mouse
42 MG/KG

IRRITATION DATA

Skin
Rabbit
Remarks: No irritation effect
Eyes
Rabbit
Remarks: Severe irritation effect

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: Causes eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: May be harmful if swallowed.

CHRONIC EXPOSURE - CARCINOGEN

Rat
Route of Application: Oral
Exposure Time: 20W
Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Endocrine:Thyroid tumors.

CHRONIC EXPOSURE - MUTAGEN

Rat
2500 UMOL/KG
Intraperitoneal
Unscheduled DNA synthesis

Rat
3500 MG/KG

Cell Type: Ascites tumor
Cytogenetic analysis

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14 - Transport Information

RID/ADR

Non-hazardous for road transport.

IMDG

Non-hazardous for sea transport.

IATA

Non-hazardous for air transport.

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

ANNEX I INDEX NUMBER: 017-013-00-2

INDICATION OF DANGER: Xi

Irritant.

R-PHRASES: 36

Irritating to eyes.

S-PHRASES: 22-24

Do not breathe dust. Avoid contact with skin.

COUNTRY SPECIFIC INFORMATION

Germany

WGK: 1

ID-Number: 220

KBwS-Decision

16 - Other Information

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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