

SAFETY DATA SHEET

Creation Date 14-August-2009 Revision Date 17-January-2018 Revision Number 3

1. Identification

Product Name Calcium chloride

Cat No.: C77-212; C77-500; C614-3; C614-10; C614-500

CAS-No 10043-52-4

Synonyms Dowflake; Calpus; Caltac (Anhydrous; Pellets; Certified; Desiccant; 4-20 Mesh and Finer)

Recommended Use Laboratory chemicals.

Uses advised against Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company

Importer/Distributor Fisher Scientific 112 Colonnade Road, Ottawa, ON K2E 7L6, Canada

Tel: 1-800-234-7437

Manufacturer

Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300 CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification

WHMIS 2015 Classification Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)

Serious Eye Damage/Eye Irritation Category 2
Combustible Dusts Category 1

Label Elements

Signal Word Warning

Hazard Statements

May form combustible dust concentrations in air

Causes serious eye irritation



Precautionary Statements

Prevention

Keep container tightly closed

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Wash face, hands and any exposed skin thoroughly after handling

Wear eve/face protection

Response

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Call a POISON CENTER/ doctor if you feel unwell

Storage

Store in a well-ventilated place. Keep container tightly closed

Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

3. Composition/Information on Ingredients

Component	CAS-No	Weight %		
Calcium chloride	10043-52-4	>95		

4. First-aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get

medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if

symptoms occur.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms

occur.

Ingestion Do not induce vomiting. Obtain medical attention.

Most important symptoms/effects

Notes to Physician

No information available. Treat symptomatically

5. Fire-fighting measures

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Unsuitable Extinguishing Media No information available

Flash Point No information available Method - No information available

Autoignition Temperature

Explosion Limits

Upper No data available

Lower No data available Sensitivity to Mechanical Impact No information available Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

Hazardous Combustion Products

Hydrogen chloride gas Chlorine

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health **Flammability** Instability Physical hazards 2 0 N/A

6. Accidental release measures

Personal Precautions Environmental Precautions Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. Should not be released into the environment. See Section 12 for additional ecological information.

Methods for Containment and Clean Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

Handling and storage

Handling

Up

Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

Keep containers tightly closed in a dry, cool and well-ventilated place. Storage

8. Exposure controls / personal protection

Exposure Guidelines

Component	Alberta	British Columbia	Ontario TWAEV	Quebec	ACGIH TLV	OSHA PEL	NIOSH IDLH
Calcium chloride			TWA: 5 mg/m ³				

Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Goggles **Eye Protection**

Hand Protection Wear appropriate protective gloves and clothing to prevent skin exposure.

ſ	Glove material	Breakthrough time	Glove thickness	Glove comments
1	Natural rubber	See manufacturers	-	Splash protection only
ı	Nitrile rubber	recommendations		
ı	Neoprene			
ı	PVC			

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability,

Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, gloves with care avoiding skin contamination.

Respiratory Protection

No protective equipment is needed under normal use conditions.

Environmental exposure controls

No information available.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

9. Physical and chemical properties

Solid **Physical State Appearance** Beige Odor Odorless

No information available **Odor Threshold** 8-10 100 g/L ag.sol 782 °C / 1439.6 °F Melting Point/Range

> 1600 °C / > 2912 °F @ 760 mmHg **Boiling Point/Range**

Flash Point No information available

Evaporation Rate Not applicable

Flammability (solid,gas) No information available

Flammability or explosive limits

No data available Upper Lower No data available **Vapor Pressure** No information available **Vapor Density** Not applicable

Specific Gravity No information available Solubility Soluble in water No data available

Partition coefficient; n-octanol/water

Autoignition Temperature

Decomposition Temperature No information available Not applicable

Viscosity Ca Cl2 **Molecular Formula Molecular Weight** 110.99

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stable under recommended storage conditions. Hygroscopic. Stability

Conditions to Avoid Incompatible products. Exposure to moist air or water. Excess heat. Avoid dust formation.

Incompatible Materials Strong oxidizing agents, Metals

Hazardous Decomposition Products Hydrogen chloride gas, Chlorine

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

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Calcium chloride

11. Toxicological information

Acute Toxicity

Product Information Component Information

	Component LD50 Oral		LD50 Dermal	LC50 Inhalation		
Г	Calcium chloride	Calcium chloride 2301 mg/kg (Rat)		Not listed		

Toxicologically Synergistic

No information available

Products

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Severe eye irritant

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	Component CAS-No IARC		NTP	ACGIH	OSHA	Mexico	
Calcium chloride	10043-52-4	Not listed					

Mutagenic effects have occurred in experimental animals. **Mutagenic Effects**

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

None known STOT - single exposure STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and No information available

delayed

Endocrine Disruptor Information No information available

Tumorigenic effects have been reported in experimental animals. See actual entry in **Other Adverse Effects**

RTECS for complete information.

12. Ecological information

Ecotoxicity

Component	onent Freshwater Algae Freshwater Fish		Microtox	Water Flea		
Calcium chloride	Not listed	Lepomis macrochirus: LC50:	Not listed	EC50: 52 mg/L/48h		
		10650 mg/L/96h		_		

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

No information available. **Bioaccumulation/ Accumulation**

Mobility Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated TDG Not regulated IATA Not regulated Not regulated Not regulated Not regulated Not regulated Not regulated

15. Regulatory information

International Inventories

Component	DSL	NDSL	TSCA	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Calcium chloride	Х	-	Χ	233-140-8	•		Х	Х	Χ	Х	Х

Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

16. Other information

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Revision SummaryThis document has been updated to comply with the requirements of WHMIS 2015 to align

with the Globally Harmonised System (GHS) for the Classification and Labelling of

Chemicals.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS