

Calcium Chloride 77% Flake

SDS Preparation Date (mm/dd/yyyy): 08/21/2017

Page 1 of 10

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product identifier used on the label

: **Calcium Chloride 77% Flake**

Product Code(s) : CA150-77

Recommended use of the chemical and restrictions on use

: Not available.
Recommended restrictions: None known.

Chemical family : Inorganic salts

Name, address, and telephone number of the supplier:

Anchem Sales

120 Stronach Crescent
London, ON, Canada
N5V 3A1

Supplier's Telephone # : 519-451-1614

24 Hr. Emergency Tel # : (613) 996-6666 (CANUTEC)

Name, address, and telephone number of the manufacturer:

Refer to supplier

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

White crystals (solid). Odourless.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification :

Acute toxicity, oral - Category 4

Serious eye damage/eye irritation - Category 1.

Specific Target Organ Toxicity, Single Exposure -Category 3 (respiratory)

Label elements

Hazard pictogram(s)



Signal Word

DANGER!

Hazard statement(s)

H302: Harmful if swallowed.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

Calcium Chloride 77% Flake

SDS Preparation Date (mm/dd/yyyy): 08/21/2017

Page 2 of 10

SAFETY DATA SHEET

Precautionary statement(s)

P280: Wear eye/face protection.
P261: Avoid breathing dust.
P264: Wash thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P270: Do not eat, drink or smoke when using this product.

P301+P330+P331: If swallowed: Rinse mouth. Do not induce vomiting.
P312: Call a poison center/doctor if you feel unwell.
P305+ P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor/physician.
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312: Call a poison center/doctor if you feel unwell.

P405: Store locked up.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P501: Dispose of contents/container in accordance with local regulation.

Other hazards

Other hazards which do not result in classification:
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Prolonged skin contact may cause dermatitis (rash), characterized by red, dry, itching skin.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

<u>Chemical name</u>	<u>Common name and synonyms</u>	<u>CAS #</u>	<u>Concentration (% by weight)</u>
Calcium chloride	Calcium chloride dihydrate	10043-52-4	75.0 - 80.0

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

Ingestion : Do NOT induce vomiting. Have victim rinse mouth with water, then give one to two glasses of water to drink. Never give anything by mouth to an unconscious person. Call a physician.

Inhalation : If inhaled, move to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing has stopped, give artificial respiration. Obtain medical attention if symptoms develop and persist.

Skin contact : Wash off immediately with plenty of water. Remove and wash contaminated clothing before re-use. If irritation or symptoms develop, seek medical attention.

Eye contact : Flush eyes with water for at least 20 minutes. Immediately call a POISON CENTRE or doctor/physician.

Most important symptoms and effects, both acute and delayed

: Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Direct skin contact may cause slight or mild, transient irritation. Symptoms may include redness, edema, drying defatting and cracking of the skin. Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough.

Indication of any immediate medical attention and special treatment needed

: Immediate medical attention is required.
Treat symptomatically.

Calcium Chloride 77% Flake

SDS Preparation Date (mm/dd/yyyy): 08/21/2017

Page 3 of 10

SAFETY DATA SHEET

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

- : Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

Unsuitable extinguishing media

- : Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture / Conditions of flammability

- : Burning may produce irritating, toxic and obnoxious fumes.

Flammability classification (OSHA 29 CFR 1910.106)

- : Not flammable.

Hazardous combustion products

- : Calcium oxides;

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

- : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Special fire-fighting procedures

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- : Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. Wear suitable protective equipment. Refer to protective measures listed in sections 7 and 8. Restrict access to area until completion of clean-up.

Environmental precautions : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces.

Methods and material for containment and cleaning up

- : Ventilate area of release. Stop spill or leak at source if safely possible. Dike for water control. Use only non-sparking tools and equipment in the clean-up process. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13).

Special spill response procedures

- : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).
US CERCLA Reportable quantity (RQ): See section 15.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

- : Use only in well-ventilated areas. Wear eye/face protection. Avoid breathing dust and fume. Avoid contact with eyes, skin and clothing. Keep away from extreme heat and flame. Keep away from incompatibles. Keep containers tightly closed when not in use. Wash thoroughly after handling. Avoid dust formation.

Conditions for safe storage : Store in a cool, dry, well-ventilated area. Store away from incompatible materials. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

Incompatible materials : Reactive metals; Oxidizing agents Acids

Calcium Chloride 77% Flake

SDS Preparation Date (mm/dd/yyyy): 08/21/2017

Page 4 of 10

SAFETY DATA SHEET

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:			
<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u> <u>STEL</u>
Calcium chloride	N/Av	N/Av	N/Av N/Av

Exposure controls

Ventilation and engineering measures

: Use in a well-ventilated area. Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

Respiratory protection

: If airborne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Advice should be sought from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02.

Skin protection

: Gloves impervious to the material are recommended. Advice should be sought from glove suppliers.

Eye / face protection

: Chemical goggles must be worn to prevent dusts from entering the eyes.

Other protective equipment

: Wear sufficient clothing to prevent skin contact. Depending on conditions of use, an impervious apron should be worn. An eyewash station and safety shower should be made available in the immediate working area.

General hygiene considerations

: Avoid breathing dust and fume. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : White crystals.

Odour : Odorless

Odour threshold : N/Av

pH : Basic

Melting/Freezing point : Not available.

Initial boiling point and boiling range

: Not available.

Flash point : Not Applicable (Does not burn)

Flashpoint (Method) : N/Av

Evaporation rate (BuAe = 1) : Not available.

Flammability (solid, gas) : Not applicable.

Lower flammable limit (% by vol.)

: N/Av

Upper flammable limit (% by vol.)

: N/Av

Oxidizing properties : Not applicable

Explosive properties : Not explosive

Calcium Chloride 77% Flake

SDS Preparation Date (mm/dd/yyyy): 08/21/2017

Page 5 of 10

SAFETY DATA SHEET

Vapour pressure : Not available.
Vapour density : Not available.
Relative density / Specific gravity : Not available.
Solubility in water : Soluble
Other solubility(ies) : Not available.
Partition coefficient: n-octanol/water or Coefficient of water/oil distribution : N/Av
Auto-ignition temperature : Not applicable.
Decomposition temperature : Not available.
Viscosity : Not available.
Volatiles (% by weight) : Not available.
Volatile organic Compounds (VOC's) : N/Av
Absolute pressure of container : N/Ap
Flame projection length : N/Ap
Other physical/chemical comments : None known or reported by the manufacturer.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : This product is not reactive.
Chemical stability : Material is stable under normal conditions.
Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.
Conditions to avoid : Avoid contact with incompatible materials. Do not use in areas without adequate ventilation. Exposure to moisture. Avoid dust formation.
Incompatible materials : See Section 7 (Handling and Storage) for further details.
Hazardous decomposition products : None known, refer to hazardous combustion products in Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation : YES
Routes of entry skin & eye : YES
Routes of entry Ingestion : YES
Routes of exposure skin absorption : YES

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

: Inhalation of dust or fumes may cause irritation of the nose, throat and upper respiratory tract.

Sign and symptoms ingestion

: Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Calcium Chloride 77% Flake

SDS Preparation Date (mm/dd/yyyy): 08/21/2017

Page 6 of 10

SAFETY DATA SHEET

- Sign and symptoms skin* : Direct skin contact may cause slight or mild, transient irritation.
Sign and symptoms eyes : Causes serious eye damage. Symptoms may include severe pain, tearing, redness, swelling and blurred vision. Permanent eye damage including blindness could result.

Potential Chronic Health Effects

- : Frequent or prolonged contact may dry the skin, leading to discomfort and dermatitis.

Mutagenicity

- : Not expected to be mutagenic in humans.

Carcinogenicity

- : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects & Teratogenicity

- : Not expected to cause reproductive effects.

Sensitization to material

- : Not expected to be a skin or respiratory sensitizer.

- Specific target organ effects** : This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015). Classification: Specific Target Organ Toxicity, Single Exposure -Category 3 (respiratory) Not classified as specific target organ toxicity-repeated exposure.

Medical conditions aggravated by overexposure

- : None known.

Synergistic materials

- : Not available.

Toxicological data

- : There is no data available for this product. The calculated ATE values for this mixture are: ATE oral = 1298.70 mg/kg

<u>Chemical name</u>	<u>LC₅₀(4hr)</u>	<u>LD₅₀</u>	
	<u>inh, rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Calcium chloride	N/Av	1000 mg/kg	>5000 mg/kg

Other important toxicological hazards

- : None known or reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

- Ecotoxicity** : Not classified for hazards to the environment. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Ecotoxicity data:

<u>Ingredients</u>	<u>CAS No</u>	<u>Toxicity to Fish</u>		
		<u>LC50 / 96h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
Calcium chloride	10043-52-4	4630 mg/L (Fathead minnow)	N/Av	None.

<u>Ingredients</u>	<u>CAS No</u>	<u>Toxicity to Daphnia</u>		
		<u>EC50 / 48h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
Calcium chloride	10043-52-4	1062 mg/L Water flea	610 mg/L Water flea	None.

Calcium Chloride 77% Flake

SDS Preparation Date (mm/dd/yyyy): 08/21/2017

Page 7 of 10

SAFETY DATA SHEET

<u>Ingredients</u>	CAS No	<u>Toxicity to Algae</u>		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Calcium chloride	10043-52-4	1000 mg/L/72hr (Green algae)	N/Av	None.

Persistence and degradability

: Biodegradation is not applicable to inorganic substances.

Bioaccumulation potential

: Not available.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Calcium chloride (CAS 10043-52-4)	N/Av	N/Av

Mobility in soil

: Not available.

Other Adverse Environmental effects

: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal

: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Methods of Disposal

: Dispose in accordance with all applicable federal, state, provincial and local regulations.

RCRA

: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
49CFR/DOT	None.	Not regulated.	not regulated	none	
49CFR/DOT Additional information	None.				
TDG	None.	Not regulated.	Not regulated	none	
TDG Additional information	None.				

Special precautions for user : None known or reported by the manufacturer.

Calcium Chloride 77% Flake

SDS Preparation Date (mm/dd/yyyy): 08/21/2017

Page 8 of 10

SAFETY DATA SHEET

Environmental hazards : This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: Not available.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Calcium chloride	10043-52-4	Yes	N/Ap	N/Av	No	No

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Eye Damage Specific target organ toxicity, single exposure; Acute toxicity . Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Calcium chloride	10043-52-4	No	N/Ap	No	No	No	No	No	No

Canadian Information:

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product. All components of this product are on the Canadian DSL list.

International Information:

Components listed below are present on the following International Inventory list:

<u>Ingredients</u>	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	New Zealand IOC
Calcium chloride	10043-52-4	233-140-8	Present	Present	(1)-176	KE-04496	Present	HSR003389

SECTION 16. OTHER INFORMATION

Legend

: ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
CSA: Canadian Standards Association

Calcium Chloride 77% Flake

SDS Preparation Date (mm/dd/yyyy): 08/21/2017

Page 9 of 10

SAFETY DATA SHEET

DOT: Department of Transportation
EPA: Environmental Protection Agency
HMIS: Hazardous Materials Identification System
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
Inh: Inhalation
LC: Lethal Concentration
LD: Lethal Dose
MN: Minnesota
N/Ap: Not Applicable
N/Av: Not Available
NFPA: National Fire Protection Association
NIOSH: National Institute of Occupational Safety and Health
NJ: New Jersey
NTP: National Toxicology Program
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PA: Pennsylvania
PEL: Permissible exposure limit
RCRA: Resource Conservation and Recovery Act
RI: Rhode Island
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TLV: Threshold Limit Values
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

References

- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2016
- 2. International Agency for Research on Cancer Monographs, searched 2017
- 3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2017(Chempendium, HSDB and RTECs).
- 4. Material Safety Data Sheets from manufacturer.
- 5. US EPA Title III List of Lists - 2017 version.
- 6. California Proposition 65 List - 2017 version.
- 7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2017.

Preparation Date (mm/dd/yyyy)

: 08/21/2017

Other special considerations for handling

: Provide adequate information, instruction and training for operators.

Prepared for:

Anchem Sales
120 Stronach Crescent
London, ON N5V 3A1
519-451-1614
info@anchemsales.com



Prepared by:

ICC The Compliance Center Inc.
Telephone: (888) 442-9628 (U.S.): (888) 977-4834 (Canada)
<http://www.thecompliancecenter.com>



Calcium Chloride 77% Flake

SDS Preparation Date (mm/dd/yyyy): 08/21/2017

Page 10 of 10

SAFETY DATA SHEET

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