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SAFETY DATA SHEET

1. Identification

Product identifier: CALCIUM CHLORIDE, PELLETS

Other means of identification

Product No.: 1313

Recommended use and restriction on use

Recommended use: Not determined. Restrictions on use: Not determined.

Details of the supplier of the safety data sheet

Avantor Performance Materials, LLC.

3477 Corporate Parkway Center Valley, PA 18034

Telephone:

Customer Service: 855-282-6867

Fax: 610-573-2610

Contact Person: Environmental Health & Safety info@avantormaterials.com E-mail:

Emergency telephone number:

CHEMTREC: 1-800-424-9300 within US and Canada

2. Hazard(s) identification

Hazard Classification

Health Hazards

Category 4 Acute toxicity (Oral) Serious Eye Damage/Eye Irritation Category 2A

Unknown toxicity - Health

Acute toxicity, oral 0 % Acute toxicity, dermal 98 % Acute toxicity, inhalation, vapor 100 % Acute toxicity, inhalation, dust 100 %

or mist

Unknown toxicity - Environment

Acute hazards to the aquatic 0 %

environment

Chronic hazards to the aquatic

environment

100 %



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Label Elements

Hazard Symbol:



Signal Word: Warning

Hazard Statement: Harmful if swallowed.

Causes serious eve irritation.

Precautionary Statements

Prevention: Wash thoroughly after handling. Do not eat, drink or smoke when using this

product. Wear protective gloves/protective clothing/eye protection/face

protection.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF SWALLOWED: Call a POISON

CENTER/doctor if you feel unwell. Rinse mouth.

Disposal: Dispose of contents/container to an appropriate treatment and disposal

facility in accordance with applicable laws and regulations, and product

characteristics at time of disposal.

Other hazards which do not result in GHS classification:

None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	Content in percent (%)*
Calcium chloride		10043-52-4	94 - 96%
STRONTIUM CHLORIDE		10476-85-4	<1%

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

General information: Get medical advice/attention if you feel unwell. Show this safety data sheet

to the doctor in attendance.

Ingestion: Rinse mouth thoroughly. Call a POISON CENTER/doctor if you feel unwell.

Inhalation: Move to fresh air. Get medical attention if symptoms persist.

Skin Contact: Wash skin thoroughly with soap and water. Get medical attention if irritation

persists after washing. Wash contaminated clothing before reuse.



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Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do,

remove contact lenses. If eye irritation persists: Get medical

advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms: Harmful if swallowed. Causes serious eye irritation.

Hazards: None known.

Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically. Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing

media:

Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing

media:

None known.

Specific hazards arising from

the chemical:

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting

procedures:

Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to

flames with water until well after the fire is out.

Special 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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Keep unauthorized personnel away. Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment.

Methods and material for containment and cleaning

up:

Sweep up and place in a clearly labeled container for chemical waste. Clean surface thoroughly to remove residual contamination.

Notification Procedures: Prevent entry into waterways, sewer, basements or confined areas. Inform

authorities if large amounts are involved.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Avoid discharge into

drains, water courses or onto the ground.



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7. Handling and storage

Precautions for safe handling: Use personal protective equipment as required. Avoid contact with eyes,

skin, and clothing. Avoid inhalation of dust. Wash thoroughly after handling.

Conditions for safe storage,

including any incompatibilities:

Keep containers tightly closed. Store in cool, dry place. Store in a well-

ventilated place.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Туре	Exposure Limit Values	Source
Calcium chloride	TWA	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)

Appropriate Engineering

Controls

No data available.

Individual protection measures, such as personal protective equipment

General information: Good general ventilation (typically 10 air changes per hour) should be used.

Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an

acceptable level.

Eye/face protection: Wear safety glasses with side shields (or goggles). Use tight fitting goggles

if dust is generated.

Skin Protection

Hand Protection: Wear protective gloves.

Other: Wear suitable protective clothing.

Respiratory Protection: In case of inadequate ventilation use suitable respirator.

Hygiene measures: Always observe good personal hygiene measures, such as washing after

handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Provide eyewash station and safety shower.

9. Physical and chemical properties

Appearance

Physical state: Solid
Form: Pellets
Color: White
Odor: Odorless

Odor threshold: No data available.

pH: 8 - 9
Melting point/freezing point: 772 °C
Initial boiling point and boiling range: > 1.600 °C

Flash Point: No data available.



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Evaporation rate:No data available.
Flammability (solid, gas):
No data available.

Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%):

Flammability limit - lower (%):

Explosive limit - upper (%):

Explosive limit - lower (%):

No data available.

Density: 2,15 g/cm3

Relative density: No data available.

Solubility(ies)

Solubility in water:
Solubility (other):
Partition coefficient (n-octanol/water):
No data available.
No data available.
No data available.
No data available.
Viscosity:
No data available.
No data available.

10. Stability and reactivity

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical Stability: Material is stable under normal conditions.

Possibility of hazardous

reactions:

Hazardous polymerization does not occur.

Conditions to avoid: Contact with incompatible materials.

Incompatible Materials: Strong oxidizing agents. Water. Acids.

Hazardous Decomposition

Products:

By heating and fire, toxic vapors/gases may be formed.

11. Toxicological information

Information on likely routes of exposure

Inhalation: May cause irritation to the respiratory system.

Skin Contact: May cause irritation.

Eye contact: Causes serious eye irritation.

Ingestion: Harmful if swallowed.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product: ATEmix: 1.013,51 mg/kg

Dermal

Product: No data available.



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Inhalation

Product: No data available.

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: May cause skin irritation.

Serious Eye Damage/Eye Irritation

Product: Causes serious eye irritation.

Respiratory or Skin Sensitization

Product: Not a skin sensitizer.

Carcinogenicity

Product: This substance has no evidence of carcinogenic properties.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

ACGIH Carcinogen List:

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No mutagenic components identified

In vivo

Product: No mutagenic components identified

Reproductive toxicity

Product: No components toxic to reproduction

Specific Target Organ Toxicity - Single Exposure Product:

No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: Not classified

Other effects: None known.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:



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Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in soil: No data available.

Other adverse effects: The product components are not classified as environmentally hazardous.

However, this does not exclude the possibility that large or frequent spills

can have a harmful or damaging effect on the environment.

13. Disposal considerations

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local

laws.

Contaminated Packaging: Since emptied containers retain product residue, follow label warnings even

after container is emptied.

14. Transport information

TDG

Not regulated.

IMDG

Not regulated.

IATA

Not regulated.

Transport in bulk according to Annex II of MARPOL and the IBC Code: Not applicable



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15. Regulatory information

Canada Federal Regulations

List of Toxic Substances (CEPA, Schedule 1)

Export Control List (CEPA 1999, Schedule 3)

National Pollutant Release Inventory (NPRI)

Greenhouse Gases

Controlled Drugs and Substances Act

Precursor Control Regulations

International regulations

Montreal protocol

Not applicable

Stockholm convention

Not applicable

Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

Inventory Status:

Australia AICS: On or in compliance with the inventory Canada DSL Inventory List: On or in compliance with the inventory EINECS, ELINCS or NLP: On or in compliance with the inventory Japan (ENCS) List: On or in compliance with the inventory China Inv. Existing Chemical Substances: On or in compliance with the inventory Korea Existing Chemicals Inv. (KECI): On or in compliance with the inventory Not in compliance with the inventory. Canada NDSL Inventory: Philippines PICCS: On or in compliance with the inventory US TSCA Inventory: On or in compliance with the inventory New Zealand Inventory of Chemicals: On or in compliance with the inventory On or in compliance with the inventory

Not in compliance with the inventory.

Japan ISHL Listing:

Japan Pharmacopoeia Listing:

16.Other information, including date of preparation or last revision

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Version #: 1.1

Further Information: No data available.



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