



Headwaters® HOT Concentrate

Safety Data Sheet (SDS)

Section 1: Identification of the Substance or Mixture and of the Supplier

1.A. Product Identifier

Product Name: Headwaters® HOT Concentrate

Product Form: Mixture

1.B. Other means of Identification

Synonyms: N/A

CAS #: Trade secret

1.C. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Product Uses: Additive for chloride deicers

Recommended Restrictions: No specific restrictions recommended

1.D. Details of the Supplier of the Safety Data Sheet

Company Identity: Pelican Chemicals, Inc.

Company Address: 5920 Sandpiper Dr.

Company City & State: Missoula, MT 59808

Company Phone: (888) 526 – 1952

1.E. Emergency Phone(s)

US (24 Hour): CHEMTREC: (800) 424-9300

Section 2: Hazard(s) Identification

2.A. Classification of the Substance or Mixture

GHS-US: GHS Classification under 2012 OSH Hazard Communication Standard (29 CFR 1910.200):

Causes serious eye irritation (Category 2A), H319

Causes mild skin irritation (Category 2), H316

2.B. Label Elements

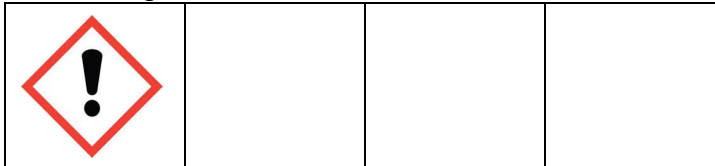
Signal Word: Warning

Hazard Statements:

H319; Causes serious eye irritation.

H316; Causes mild skin irritation.

Hazard Pictograms:



Precautionary Statements:

P264; Wash skin thoroughly after handling.

P280; Wear protective gloves/eye protection/face protection.

P305+P351+P338; IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313; If eye irritation persists: Get medical advice/attention

2.C. Hazards Not Otherwise Classified

None Known.

2.D. Unknown Acute Toxicity

None Known.



Section 3: Composition/Information on Ingredients

Chemical Name	Common Name	CAS #	EINECS#	Weight (%)
Corrosion Inhibitor (Proprietary)	N/A	Trade Secret	Trade Secret	Trade Secret
Calcium Chloride (CaCl ₂)	Calcium Chloride	10043-52-4	233-140-8	70-80%

Section 4: First-Aid Measures

4.A. Description of Necessary Measures

General advice: If you feel unwell, obtain medical attention.

Eye contact: If substance has got into the eyes, immediately wash out with plenty of water. Remove contact lenses if present and easy to do so. Continue rinsing for at least 15 minutes. If symptoms persist, obtain medical attention.

Skin contact: Wash with mild soap and water, seek medical advice if irritation persists.

Ingestion: Wash out mouth with water. Do not induce vomiting without medical advice. Drink large amounts of water. If large amount swallowed or symptoms develop obtain medical attention.

Inhalation: If inhalation of vapor, mist, or spray occurs and adverse effects result, move person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician.

4.B. Description of Symptoms and Effects

General Symptoms/Injuries: The most important known symptoms and effects are described in section 11.

Eye Contact: Eye Irritation. Eye exposure may cause serious eye irritation and pain. May cause conjunctival swelling and cornea opacification from hypertonic solution. Corneal eye pain, redness, acute corneal thickening or whitening.

Skin Contact: Skin Irritation. Skin exposure may cause slight irritation, redness, itching, swelling. May cause more severe response if skin is damp, abraded (scratched or cut), or covered by clothing, gloves, or footwear. Prolonged contact may cause more severe symptoms. Damage is localized to contact areas.

Ingestion: Consumption causes nausea, vomiting, and increased thirst.

Inhalation: Inhaling mist, spray, or vapor may cause irritation to upper respiratory tract (nose and throat). Nasal mucosal and oropharyngeal erythema.

4.C. Description of Immediate Medical Attention and Special Treatment

If any irritation symptoms from exposure persist, contact a local physician.

Section 5: Fire-Fighting Measures

5.A. Extinguishing Media

Suitable Extinguishing Media: Does not burn. Compatible with all standard extinguishing media and firefighting techniques.

Unsuitable Extinguishing Media: None Known

5.B. Specific Hazards

Description: Non-flammable, Non-combustible powder, that is not expected to be reactive under normal conditions.

Hazardous combustion products: Hydrogen Chloride Gas, Sodium and Calcium Oxides

5.C. Special Protective Equipment and Precautions for Fire-Fighters

Use goggles, a self-contained breathing apparatus and suitable protective clothing should be worn.



Section 6: Accidental Release Measures

6.A. Personal Precautions, Protective Equipment, and Emergency Procedures

Wear appropriate protective equipment before acting. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Ensure there is a safety shower in the immediate work area.

Ensure there is an eye wash station in the immediate work area.

6.B. Containment and Clean-up

Small and large spills: Contain spilled material if possible. Collect in suitable and properly labeled containers. Flush residue with plenty of water. See Section 13, Disposal considerations, for additional information.

Section 7: Handling and Storage

7.A. Precautions for Safe Handling

Heat developed during diluting or dissolving is very high. Use cool water when diluting or dissolving (temperature less

than 80°F, 27°C). Avoid contact with eyes, skin, and clothing. Do not swallow. Wash thoroughly after handling. Wear personal protective equipment as described in Exposure Controls/Personal Protection (Section 8) of the SDS.

7.B. Conditions for Safe Storage

Store in a dry place. Protect from atmospheric moisture. Keep container tightly closed.

Section 8: Exposure Controls/Personal Protection

8.A. Exposure Limits

Chemical Name	OSHA Final PEL TWA	OSHA Final PEL STEL	OSHA Final PEL Ceiling
Particles Not Otherwise Regulated (PNOR) 00-00-001	15 mg/m ³ (Total) 5 mg/m ³ (Respirable)	----	----

No specific OES assigned for the proprietary corrosion inhibitor.

8.B. Appropriate Engineering Controls

Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines. General ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations

8.C. Individual Protection Measures

Respiratory Exposure Controls: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In dusty or misty atmospheres, use an approved particulate respirator. A high-efficiency particulate air (HEPA) N95 should be an effective air-purifying respirator. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

Eye Protection: Wear safety glasses with non-flexible side shields or chemical goggles. A face shield should be worn if a potential for splashing or spraying exists.

Hand Protection: Use gloves chemically resistant to this material. If hands are cut or scratched, use gloves chemically resistant to this material even for brief exposures. Examples of preferred glove barrier materials include: Neoprene, Polyvinyl chloride ("PVC" or "vinyl"), Nitrile/butadiene rubber ("nitrile" or "NBR").
NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace



should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier

Body Protection: Wear clean, body-covering clothing.

Work & Hygienic Practices: Wash thoroughly after handling, wash contaminated clothes before next use. Practice good and safe industrial hygiene

Section 9: Physical and Chemical Properties

Appearance:	White Powder
Odor:	Odorless
Odor threshold:	No data available
pH:	Not applicable to solids
Melting point:	772 °C (1,422 °F)
Freezing point:	Not applicable to solids
Boiling point/range:	Not applicable to solids
Flash point:	Not applicable to solids
Evaporation rate:	Not applicable to solids
Flammability:	Not applicable to solids
Upper/lower flammability or explosive limits:	Not applicable to solids
Vapor pressure:	Negligible at ambient temperature
Vapor density:	Not applicable to solids
Relative density (@20°C):	Not applicable to solids
Solubility:	Readily soluble
Partition Coefficient: N-octanol/water:	No data available
Auto-ignition temperature:	Not applicable to solids
Decomposition temperature:	Not applicable to solids
Viscosity:	Not applicable to solids

Section 10: Stability and Reactivity

Reactivity:	Hygroscopic. Liberates large amounts of heat when dissolving in water or aqueous acids.
Chemical stability:	Stable at normal temperatures and pressures.
Possibility of hazardous reactions:	Avoid moisture
Conditions to avoid:	None known
Incompatible materials:	Heat is generated when mixed with water or aqueous acids. Spattering and boiling can occur. Avoid contact with: bromide trifluoride, 2-furan percarboxylic acid because calcium chloride is incompatible with those substances. Contact with zinc forms flammable hydrogen gas, which can be explosive. Catalyzes exothermic polymerization of methyl vinyl ether. Attacks metals in the presence of moisture, and may release flammable hydrogen gas. Reaction of bromide impurity with oxidizing materials may generate trace levels of impurities such as bromates
Hazardous decomposition products:	Formed under fire conditions: hydrogen chloride gas, calcium oxide



Section 11: Toxicological Information

11.A. Likely Routes of Exposure

Eye Contact: May cause serious eye irritation. May cause slight corneal injury. Effects may be slow to heal.

Skin Contact: Brief contact is essentially non-irritating to skin. Prolonged contact may cause skin irritation, even a burn. May cause more severe response if skin is damp, abraded (scratched or cut), or covered by clothing, gloves, or footwear. Not classified as corrosive to the skin according to DOT guidelines.

Ingestion: Low toxicity if swallowed. Small amounts swallowed incidentally because of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Swallowing may result in gastrointestinal irritation or ulceration.

Inhalation: Vapors are unlikely due to physical properties. Mist may cause irritation to upper respiratory tract (nose and throat).

Chronic Effects: Chronic exposures to calcium chloride that cause irritation may cause a chronic dermatitis or mucosal membrane problem. There are no chronic effects known for exposure to the proprietary corrosion inhibitor.

11.C. Effects from Exposure

12.A. Ecotoxicity

Calcium Chloride (CAS# 10043-52-4)

LC50 Fish 96h: 10,650 (mg/L)

LC50 Daphnia 48h: 3,005 (mg/L)

Proprietary Corrosion Inhibitor:

LC50 Fish 96h: >1000 (mg/L)

LC50 Daphnia 48h: >1000 (mg/L)

EC50 Green Algae 96h: >1000 (mg/L)

Fish Chronic Value: >100 (mg/L)

Daphnid Chronic Value: >100 (mg/L)

Algae Chronic Value: >100 (mg/L)

Fathead Minnow Survival: NOEC: 1.0g/L, LOEC: 3.00 g/L, IC50: 2.20 g/L

Fathead Minnow Growth: NOEC: 0.25g/L, LOEC: 0.50 g/L, IC50: 1.37 g/L

Ceriodaphnia Dubia Reproduction: NOEC: 0.25g/L, LOEC: 0.50 g/L, IC50: 0.43 g/L

Ceriodaphnia Dubia Survival: NOEC: 3.0g/L, LOEC: >3.00 g/L, IC50: >3.00 g/L

Selenastrum Growth: NOEC: 0.03 g/L, LOEC: 0.25 g/L, IC50: >3.00 g/L

12.B. Persistence and Degradability

Calcium Chloride (CAS# 10043-52-4)

Inorganic and not subject to biodegradation.

Proprietary Corrosion Inhibitor: Rapid biodegradation in the environment, 40% in 5 days.

12.C. Bio accumulative Potential

Believed not to bioconcentrate, because of the relatively high water-solubility.

12.D. Mobility in Soil

Calcium chloride is not expected to be absorbed in soil due to its dissociation properties and high water-solubility.

No other adverse environmental effects are expected.

12.E. Other Adverse Effects

None known.

Section 13: Disposal Considerations

Disposal instructions: Reuse or reprocess, if possible. Waste must be disposed of in accordance with federal, state, and local environmental control regulations. Small spills may be flushed into normal drainage into ground with copious amounts of water taken up with non-reactive absorbent material. Large spills should be held for proper waste disposal.

Hazardous waste code: This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste., if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.



PELICAN CHEMICALS, INC.

SAFETY DATA SHEET (SDS)

SDS#: PRODUCT NAME HERE

Revision Date: Revision Date Here

Emergency Phone Number: +1 (800) 424-9300

Waste from residues/unused: Dispose of in accordance with federal, state, and local environmental control regulations.

Contaminated packaging: Small containers should be emptied to the extent practical and disposed as ordinary trash.

Section 14: Transport Information

U.S. DOT 49 CFR 172.101: Not Regulated

Canadian Transportation of Dangerous Goods: Not Regulated

Maritime Transport (IMO/IMDG): Not Regulated

UN Number: N/A

Transport Hazard Class(es): N/A

Packaging Group Number: N/A

Environmental Hazards: N/A

Section 15: Regulatory Information

OSHA Occupational Chemical Database: Not Listed.

OSHA Process Safety (PSM) (29 CFR 1910.119): Not Regulated.

CERCLA Sections 102a/103, Hazardous Substance (40 CFR 302.4): Not Regulated.

SARA Section 302, Extremely Hazardous Substance (EHS) Emergency Notification and Planning (40 CFR 355.30): Not Listed.

SARA Section 302, Extremely Hazardous Substance (40 CFR 355, Appendix A): Not Listed.

EPCRA Section 311/312, Hazardous Chemical Reporting (40 CFR 370.10): Acute Health Hazard.

EPCRA Section 313, Toxic Release Reporting (40 CFR 372.65): Not Regulated.

TSCA Section 12 (b) export Notification (40 CFR 707, Subpart D): Not Regulated.

Clean Air Act (CAA) Section 112(b) Hazardous Air Pollutants (HAPs) List: Not Regulated.

Clean Air Act (CAA) Section 112[®] Accidental Release Prevention (40 CFR 68.130): Not Regulated.

Clean Water Act (40 CFR 122.21 and 40 CFR 122.42): Not Regulated.

US Massachusetts Right-To-Know (RTK)- Substance List: Not Listed.

US New Jersey Worker and Community Right-to-Know Act: Not Listed.

US Pennsylvania RTK-Hazardous Substances: Not Listed.

US Rhode Island RTK: Not Listed.

US California Proposition 65: Not Listed.

Section 16: Other Information

Disclaimer: This SDS is provided to be used only as a guide. The information provided in this sheet relates strictly to the designated product as it is provided by Pelican Chemicals, Inc. The responsibility of the buyer of this product is to comply with all applicable governmental requirements and to determine safety conditions for the use of this product. Pelican Chemicals, Inc. is not responsible or liable for any damages that result from handling or contact with this product.