



Headwaters® HOT Salt Brine Enhancer
Safety Data Sheet (SDS)

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

1.A. Product Identifier

Product Name: Headwaters® HOT; Salt Brine Enhancer

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 deicing products.

Recommended Restrictions: No specific restrictions recommended.

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

Company Identity: Pelican Chemicals, Inc.

Company Address: 2901 West Broadway, Suite 200

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

In accordance with paragraph (i) of §1910.1200, of the United States Department of Labor Occupational Safety and Health Standards, 1910 Subpart Z- the specific chemical identity and exact percentage (concentration) of this Mixture's composition has been withheld as a trade secret.

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	20-30%
Dihydrogen Monoxide (H ₂ O)	Water	7732-18-5	231-791-2	Trade Secret

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: Washout 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 liquid, 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.

Spilled material may cause a slipping hazard on some surfaces.

Spills may be tacky and slippery.

6.B. Containment and Clean-up



Isolate area. Keep unnecessary and unprotected personnel from entering the area.
 Prevent large spills from entering sanitary sewer or storm drains or other waterways.
 Small spills and small amounts of residue 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.

Section 7: Handling and Storage

7.A. Precautions for Safe Handling

Avoid skin and eye contact.
 Proper use of safety glasses and personal protective equipment required, as described in Exposure Controls/Personal Protection (Section 8) of the SDS. Handle product with efficient industrial hygiene and wash hands after each use. Contain for proper disposal or recycling.

7.B. Conditions for Safe Storage

Store in a closed container away from incompatible materials.
 Store in a cool, dry place protected from weather and sunlight.
 Protect from atmospheric moisture. Keep containers closed when not in use.
 Avoid contact with bromide trifluoride, and 2-furan percarboxylic acid because calcium chloride is incompatible with those substances.
 Contact with zinc forms flammable hydrogen gas, which can be explosive.

Section 8: Exposure Controls/Personal Protection

8.A. Exposure Limits

Chemical Name	OSHA Final PEL TWA	OSHA Final PEL STEL	OSHA Final PEL Ceiling
Calcium Chloride 10443-52-4	15 Mg/m3 (Total) 5 mg/m3 (Respirable)	n/a	n/a

No specific OES assigned for the proprietary corrosion inhibitor.

8.B. Appropriate Engineering Controls

When there is a potential for exposure, and emergency eyewash and safety shower should be provided within the immediate work area.

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 consider 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 appropriate protective non-leather protective boots. Wear appropriate protective, impervious clothing. Chemical protective gloves and boots such as PVC, Neoprene, or Heavy Nitrile are recommended. Leather products do not offer adequate protection and will dehydrate with resultant shrinkage and possible destruction.

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:	Light Amber Liquid
Odor:	Sweet
Odor threshold:	not applicable
pH:	7.0-9.5
Melting point:	not available
Freezing point:	<0°F
Boiling point/range:	~212°F
Flash point:	not available
Evaporation rate:	not available
Flammability:	not available
Upper/lower flammability or explosive limits:	not available
Vapor pressure:	not available
Vapor density:	not available
Relative density (@20°C):	1.31-1.33
Solubility:	Complete in water
Partition Coefficient: N-octanol/water:	not applicable
Auto-ignition temperature:	not applicable
Decomposition temperature:	not available
Viscosity:	not available

Section 10: Stability and Reactivity

Reactivity:	Hygroscopic
Chemical stability:	Stable under normal conditions
Possibility of hazardous reactions:	None known under normal use
Conditions to avoid:	Prolonged direct exposure to metal
Incompatible materials:	Avoid contact with bromide trifluoride, and 2-furan percarboxylic acid because calcium chloride is incompatible with those substances
Hazardous decomposition products:	When heated to decomposition, this product may emit hydrogen chloride gas and sodium/calcium oxides

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.B. Symptoms

Solution and or solids may be visible on the skin and or eyes. Localized redness, warmth, and irritation consistent with mechanism of injury: abrasion, burn, hypertonic solution.

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 of solids or hypertonic solutions 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.

11.C. Effects from Exposure

Sensitization: No information available.

Carcinogenicity: Not found to be a potential carcinogen by OSHA, NTP, or the IARC

Mutagenic data: Not classified as a mutagen per GHS criteria.

Reproductive toxicity: Not classified as a developmental or reproductive toxin per GHS criteria.

STOT- single exposure: No information available.

STOT- repeated exposure: No information available.

11.D. Numerical Measures of Toxicity

Calcium Chloride (CAS# 10043-52-4)

LD50 Oral: 1000 mg/kg (Rat)

LD50 Dermal: 2,630 mg/kg (Rat)

Proprietary Corrosion Inhibitor:

LD50 (rat): >2000 (mg/kg bw)

11.E. Hazardous Toxicology Listings:

None.

Section 12: Ecological Information

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



PELICAN CHEMICALS, INC.

SAFETY DATA SHEET (SDS)

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

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.

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.

Section 15: Regulatory Information

TSCA: Headwaters® Corrosion inhibitor is on TSCA inventory.

U.S. Regulations:

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.