SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1 Product Identifier

Product Name:	**PrevaClean 9130**
Chemical Family:	Hydrochlorous Acid, Sodium Salt
CAS Number:	N/Ap

1.2 Relevant Identified Uses

Product Intended Uses:	Bleaching Agent

1.3 Supplier Details

Name & Address:	Evergreen Solutions 64210, 393 Loop East Okotoks, AB T1S 0L1
SDS Contact:	hbrar@evergreensolutions.com

1.4 Emergency Contact

Emergency Telephone:	1-613-996-6666 (CANUTEC) or 403-554-1402
Opening Hours:	1-800-610-5907 (M-F, 8am-5pm, MST) or +1 403 554-1402 (24 hours)

SECTION 2: HAZARD IDENTIFICATION

2.1 Substance/Mixture Classification

Hazard Classification:
Skin Corrosion/Irritation (Category 1B)
Serious Eye Damage/Irritation (Category 1)
Corrosive To Metals (Category 1)

2.2 Label Elements

Hazard Pictogram(s):

Signal Word: DANGER

Hazard Statement(s):
Causes severe burns and eye damage.
May be corrosive to metals.

Precautionary Statement(s)

Prevention:
Keep only in original container.
Wash hands, face and any exposed skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves, protective clothing, eye protection and face protection.

Response:
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing. Immediately call a POISON CENTER or doctor/ physician. Absorb spillage to prevent material damage.

Storage: Store locked up. Store in corrosive resistant container with a resistant inner liner.

Disposal: Dispose content/container to appropriate treatment and disposal plan in accordance with applicable laws and regulation, and product characteristic at time of disposal.

2.3 Other Hazards

Other Hazard Classification: Mixing this product with acid or ammonia releases chlorine gas. Contact with acids liberates toxic gas.

SECTION 3: COMPOSITION/INGREDIENT INFORMATION

3.1 Substances

Ingredient Name	Identifiers	% W/W
Sodium Hypochlorite	Cas No.: 7681-52-9	0 – 10

Note: Product contains no hazardous ingredients AT USE DILUTION.

SECTION 4: FIRST-AID MEASURES

4.1 Description of First Aid Measures

Eye Contact: Check for and remove any contact lenses. Do not rub eyes. Immediately flush with warm running water, holding the eyelids apart and occasionally lifting the upper and lower eyelids, for 15 minutes. Call a physician if irritation develops.

Skin Contact: Remove contaminated clothing and shoes, wash before reuse. Wash affected skin with soap and water or use a recognized skin cleanser. See physician if irritation develops.

Inhalation: Remove affected victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing irregular or if respiratory assert occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Ingestion: Rinse out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open

	airway. Loosen tight clothing such as a collar, tie, belt or waistband.
First Aid Protection:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most Important Symptoms & Effects (Acute and Delayed)

Eye Contact:	No specific data.
Skin Contact:	No specific data.
Inhalation:	No specific data.
Ingestion:	No specific data.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Physician Notes:	Treat symptomatically.
Specific Treatments:	No specific treatment.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable Media:	Product does not burn. Use appropriate extinguishing media for material that is supplying the fuel to the fire.
Unsuitable Media:	None known.

5.2 Special Hazards from Substance/Mixture

Hazards from substance:	Exposure to decomposition products may be a hazard to health.
Hazardous Combustion Products:	Decomposition products may include the following materials: Halogenated compound and metal oxides.

5.3 Advice for Firefighters

Special Protective Actions:	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.
Special Protective Equipment:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Non-emergency Personnel:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Emergency Responders:	Use personnel protection recommended in Section 8 to deal with the spillage. See also the information in "Non-emergency Personnel".

6.2 Environmental Precautions

Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Do not allow contact with soil, surface or ground water.

6.3 Methods and Materials of Containment and Cleanup

Small Spill:	Stop leak if safe to do so. Contain spillage, and then collect with noncombustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.
Large Spill:	Stop the leak if possible. Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Ventilate the area. Ventilate the area involved. Block release of the chemical from sewer or storm drains. Observe all personal protection equipment recommendations. Ensure personal protection during removal of spillages. Eliminate all ignition sources if safe to do so. Local authority should be advised if significant spill cannot be contained.

6.4 Reference to Other Sections

Additional Sections:	See Section 7 for handling and storage information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION 7: HANDLING AND STORAGE

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for Safe Handling

Protective Measures:	Do not ingest. Do not breathe dust/fume/gas/ mist/vapors/spray. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not get in eyes, on skin, or on clothing. Mixing this product with acid or ammonia releases chlorine gas.
General Occupational Hygiene Advice:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective

equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for Safe Storage and Incompatibilities

Safe Storage: Do not store near acids. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers. Storage temperature: 0 °C to 40 °C

Incompatibilities: No specific data.

7.3 Specific End Use(s)

Recommendations: No specific data.

Industrial Sector Specific Solutions: No specific data.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control Parameters

Occupational Exposure Limits: Contains no substances with occupational exposure limit values.

Recommended Monitoring Procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference to national guidance documents for methods for the determination of hazardous substances will be required.

DNELs/DMELs: No DNELs/DMELs available.

PNECs: No PNECs available.

8.2 Exposure Controls

Engineering Controls: Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Make up air should always be supplied to balance air exhausted (either generally or locally). Ventilation required when spraying or applying in a confined area. Ventilation should be explosion proof. Eliminate ignition sources.

<u>Individual Protection Measures</u>

Hygiene Measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/Face Protection:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection. **Chemical goggles or full-face shield.**

Skin Protection

Protective Handwear:	**Standard glove type: PVC, impervious gloves.** Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body Protection:	Body suits, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse. Impervious boots of chemically resistant material should be worn at all times. Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.
Other Skin Protection:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory Protection:	Wear a NIOSH approved full facepiece respirator for acid gases or a self-contained breathing apparatus for air concentration levels up to 5 ppm. NIOSH approved supplied air respirator when airborne concentrations exceed exposure limits.
Environmental Exposure Controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Appearance

Physical State:	Liquid
Color:	Yellow (Diluted: Colorless)
Odor:	Chlorine
Odor Threshold:	N/E
pH Factor:	12 – 13.5 (Diluted: 8.5 – 10.5)
Melting/Freezing Point:	N/Av
Boiling Point (°C):	100°C (212°F)
Flash Point:	N/Ap, Does not sustain combusion

Evaporation Rate:	N/E
Flammability:	N/Av
Explosive Limits:	None
Vapor Pressure:	N/Av
Vapor Density (air = 1):	N/Av
Relative Density:	1.15 – 1.25
Solubility(ies):	N/Av
Partition Coefficient:	N/Av
Auto-ignition Temperature:	N/E
Decomposition Temp.:	N/Av
Viscosity:	N/E
Explosive Properties:	N/E
Oxidizing Properties:	None

9.2 Other Information

Solubility in Water:	Soluble
Pour Point:	N/Av

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: Stable under normal conditions.

10.2 Chemical Stability: Unstable at temperatures above 40°C, in sunlight, and in contact with acid.

10.3 Possibility of Hazardous Reactions: Mixing this product with acid or ammonia releases chlorine gas.

10.4 Conditions to Avoid: None known.

10.5 Incompatible Materials: Organic materials. Metals. Acids.

10.6 Hazardous Decomposition Product(s): Halogenated compounds and metal oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Toxicological Effects Information

Acute Toxicity

Conclusion/Summary:

LD50 (Oral, Rat) 5230 mg/kg
LD50 (Inhalation, Rat) > 5.25 mg/kg 4h
LD50 (Dermal, Rabbit) >10,000 mg/kg

Irritation/Corrosion

Conclusion/Summary: Corrosion for eyes and skin.

Sensitization

Conclusion/Summary: Is not a skin sensitizer.

Mutagenicity

Conclusion/Summary: No adverse mutagenic effects are anticipated.

Carcinogenicity

Conclusion/Summary:

Ingredient	IARC	ACGIH
Sodium Hypochlorite	Group 3	Not listed

Reproductive Toxicity

Conclusion/Summary:	No adverse reproductive effects are anticipated.

Teratogenicity

Conclusion/Summary:	No adverse teratogenic effects are anticipated.

Specific Target Organ Toxicity – Single Exposure

Conclusion/Summary:	Not available.

Specific Target Organ Toxicity – Single Exposure

Conclusion/Summary:	Not available.

Aspiration Hazard

Conclusion/Summary:	Not available.
Likely Routes of Exposure:	Oral, Dermal, Inhalation, Ingestion.

Potential Acute Health Effects

Eye Contact:	Causes serious eye damage.
Inhalation:	May cause nose, throat, and lung irritation.
Skin Contact:	Causes severe skin burns.
Ingestion:	Causes digestive tract burns.

Physical, Chemical and Toxicological Symptoms

Eye Contact:	No specific data.
Inhalation:	No specific data.
Skin Contact:	No specific data.
Ingestion:	No specific data.

Delayed and Immediate Effects and Chronic Effects from Short and Long-Term Exposure

Short Term Exposure

Potential Immediate Effects:	Not available.
Potential Delayed Effects:	Not available.
Other information:	Not available

SECTION 12: ECOLOGICAL INFORMATION

12.1	**Ecotoxicity:**	48 h EC50: 0.071 mg/l
12.2	**Persistence & Degradability:**	Not Available.
12.3	**Bioaccumulative Potential:**	Not Available.
12.4	**Mobility in Soil:**	Not Available.
12.5	**PBT and vPvB Assessment:**	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
12.6	**Other Adverse Effects:**	None.

SECTION 13: DISPOSAL CONSIDERATIONS

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste Treatment

Product

Disposal Methods:	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements

of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous Waste: The classification of the product may meet the criteria for a hazardous waste.

Packaging

Disposal Methods: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special Precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

		ADR	DOT	TDG	IMO/IMDG	ICAO/IATA
14.1	UN Number	1791	1791	1791	1791	1791
14.2	UN Shipping Name	HYPOCHLORITE SOLUTION	HYPOCHLORITE SOLUTION	HYPOCHLORITE SOLUTION	HYPOCHLORITE SOLUTION	HYPOCHLORITE SOLUTION
14.3	Transport Hazard Class(es)	Class 8	Class 8	Class 8	Class 8	Class 8
14.4	Packaging Group	PG III	PG III	PG III	PG III	PG III
14.5	Environmental Hazards	No	No	No	No	No

14.6 Special User Precautions: **Transport within user's premises:** Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Bulk Transportation: *Transportation in bulk accordance to Annex II of Marpol 73/78 and IBC Code.*

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health & Environmental Regulations/Legislation
US Federal Regulations

OSHA	This material is classified as hazardous under OSHA regulations (29 CFR 1910.1200) (HazCom 2012). Hazardous classification: Corrosive to Metals (Category 1)
USA TSCA	All chemicals listed.
SARA TITLE III	
Sec. 302.	
Sec. 313.	40 CFR 372 This substance contains no materials subject to the reporting requirements of SARA (III) Section 313.
Sec. 311 and 312.	40 CFR 370 MSDS Requirements. Hazardous Classes: Immediate acute health hazard.
US State Right to Know Law	**Proposition 65 California Safe Drinking Water and Toxic Enforcement Act of 1986:** This product does not contain any chemicals currently listed as carcinogens or reproductive toxins under California Proposition 65 at levels under which would be subject to the proposition.
International Inventories	
Canada:	All components of this product comply with the inventory requirements administrated by the *Domestic Substances List (DSL)*.
Canada Regulatory Information:	**WHMIS Classification:** The product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.
Australia AICS	On or in compliance with the inventory
China Inv. Existing Chemical Substances	On or in compliance with the inventory
Japan	ENCS List: On or in compliance with the inventory ISHL List: On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI)	On or in compliance with the inventory
New Zealand Inv. Of Chemicals	On or in compliance with the inventory
Philippines PICCS	On or in compliance with the inventory
EU Regulations	Regulation (EC) No 1005 of 16 September 2009 – product is not a subject to this regulation. Regulation (EC) No 850/2004 of 29 April 2004 – product is not a subject to this regulation. Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water. Authorizations and/or restrictions on use: Not Applicable.
15.2 Chemical Safety Assessment:	No chemical safety assessment has been carried out for mixture by the supplier.

SECTION 16: OTHER INFORMATION

Abbreviations and Acronyms

ATE:	Acute Toxicity Estimate
CLP:	Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

DMEL:	Derived Minimal Effect Level
DNEL:	Derived No Effect Level
EUH Statement:	CLP-specific Hazard statement
PBT:	Persistent, Bioaccumulative and Toxic
PNEC:	Predicted No Effect Concentration
RRN:	REACH Registration Number
vPvB:	Very Persistent and Very Bioaccumulative

Procedure Used to Derive the Classification According to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Corrosion/Irritation (Category 1B)	On basis of test data.
Serious Eye Damage/Irritation (Category 1)	On basis of test data.
Corrosive To Metals (Category 1)	On basis of test data.

Date of Issue/Revision:	March 22, 2020
Replaces:	August 15, 2018
Prepared By:	Evergreen Solutions Corp.

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

<< N/E = Not established N/AP = Not Applicable N/AV = Not Available C.O.C = Cleveland Open Cup >>