

# Technical Memorandum; Salt Management Plan

---

Date: December 13<sup>th</sup>, 2023 (Revised July 25<sup>th</sup>, 2024)

To: City of Guelph – Engineering & Transportation Services  
City of Guelph  
1 Carden Street  
Guelph, ON

Attn: To Whom it May Concern

Re: **Salt Management Plan for Proposed Development – ‘Pergola Commons’**  
Proposed Mixed-Use Development of 1 Clair Road East, Guelph, ON  
Proposed Rezoning Bylaw Amendment & Official Plan Amendment Applications  
Owner: FCHT HOLDINGS (ONTARIO) CORPORATION  
civilGo Project No. 23-045

---

## 1. Introduction & Objectives

The purpose of this memorandum is to recommend best management practices in the management of snow removal and de-icing agent application whereby the criteria identified by the City of Guelph for salt management are addressed, in the proposed re-development of 1 Clair Road East.

The proposed re-development of 1 Clair Road East comprises four 14-storey mid-rise buildings to be constructed on a 2.22 Ha portion of a larger existing 5.38 Ha commercial Site. The proposed development comprises proposed driveways, private roads, parking areas and pedestrian walkways, which will be subject to winter maintenance and snow clearing/de-icing agent application.

Refer to the *Functional Servicing & Stormwater Management Report, ‘Pergola Commons’, Proposed Mixed-Use Re-Development, 1 Clair Road East* by civilGo Engineering Inc. (December 2023; Rev. July 2024) for further details of the proposed development and storm drainage.

The criteria that was observed in the preparation of this Technical Memorandum is provided in the City of Guelph’s document titled *Private Salt Management Plans in the City of Guelph, Guidance Document*

for Proponents (June 30, 2016 Version 1). This Technical Memorandum follows the general guidelines and structure identified in Section 3.0 of the City’s guidance document.

## 2. Identification of Traffic Areas and Sensitive Features

The proposed development comprises the following areas which will be subject to pedestrian and vehicular traffic and thus will require winter snow removal and salt application. Refer to the *Winter Maintenance & Salt Management Plan* figure, appended here, for the locations of the below areas.

- Private East-West Road/driveway extending through the Site from the west *Development Line*, to Hawkins Drive, to the east. This will be the main vehicular access for the site and will provide access to the four proposed buildings’ residential lobbies and loading areas.
- Private north-south ‘Woonerf’ pedestrian connection from the above Private East-West Road, connecting to Poppy Drive East, to the south. This will serve primarily as a pedestrian walkway surface.
- Pedestrian walkways surrounding the four proposed buildings, internal courtyards, etc. Each of the four proposed buildings will have walkways and pathways surrounding them in order to provide pedestrian access to ground-level residential units and building entrances/egresses.

The proposed development will be largely underlain by the proposed below-grade parking structures, and all pedestrian and driving surfaces as described above will be imperviously surfaced. In locations where there is a below-grade parking structure beneath the surfaces which are subject to winter maintenance, said below-grade structure will prevent the percolation of salt-laden water from the surface into underlying soils and subsequently into the groundwater table. Impervious pavements, when properly maintained, will also channel runoff to approved outlets and prevent unintentional percolation of salt-laden runoff into the groundwater table.

There is one possible sensitive feature in terms of salt contamination: the existing (and proposed) infiltration facilities. There is an existing infiltration facility located near the Site’s east side which is proposed to remain in the development in order to address Water Balance/Stormwater Retention criteria. There is also an infiltration gallery proposed in the POPS area. Refer to the *Functional Servicing & Stormwater Management Report* by civilGo Engineering Inc. for the details of the design and necessity for these features. All of the Site’s runoff will ultimately drain towards the existing infiltration facility, which directly contributes water to the groundwater table. Therefore, in winter months, this constitutes a sensitive feature. This may be addressed by use of non-chloride-based (or low-chloride) de-icing agents to mitigate the impact of winter runoff on groundwater conditions.

## 3. Identification of Snow-Storage/Disposal Areas

Snow storage areas have been identified on the *Winter Maintenance & Salt Management Site Plan* figure, below. It is shown that there is adequate space available for snow storage. If the volume of snow requiring storage exceeds the space available on-site, it may be disposed off-site.

## 4. Use of Alternative Products

Where possible, the use rock salt should be minimized in favor of liquid de-icing salt, for driving surfaces.

For sidewalks, there should be minimal use of sodium, calcium and magnesium chloride as a de-icing chemical. Where no alternatives are available and de-icing chemicals must be used, the following are the acceptable de-icing chemicals that may be applied in pedestrian areas: Potassium Acetate and Carbohydrate-based Solutions (refer to Appendix B for details of proposed de-icing agents). This is in accordance with the Owner’s policies regarding winter maintenance.

## 5. Engineered Measures

The following solutions pertaining to drainage engineering should be implemented to mitigate the effects of salting and infiltration of salt-laden runoff.

The proposed development’s drainage will be designed to direct runoff to catchbasins and trench drains, rather than features which would direct the salt-laden runoff to recharge the groundwater table. Refer to the *Functional Grading Plan(s)* by civilGo Engineering Inc. for the proposed development; Drawings CV-201, CV-202 and CV-203. It is shown thereon, that by the proposed grading design, stormwater runoff will be directed to proposed catchbasins and trench drains. Ultimately, the catchbasins and trench drains will drain to the proposed stormwater Filter, which will provide 80% Total Suspended Solids Removal (Refer to the FSR).

## 6. Operational Measures

The following operational measures should be applied in the future ongoing operation of the proposed development to mitigate the impacts of winter maintenance on groundwater quality.

- Commence snow clearing on the earlier of (i) when the accumulation reaches four centimetres (4cm) resulting from one or more snowfalls or (ii) after two (2) hours from the beginning of any snowfall.
- Move to designated pile areas, or from the site, all ploughed snow, in accordance with the enclosed *Winter Maintenance & Salt Management Site Plan* figure. Mechanical snow removal methods shall be used whenever possible.
- Apply de-icing agents to parking lot areas after each ploughing, as required, to ensure meltdown of residual snow and prevent further accumulations.
- Apply de-icing agents at all other times required, or perform any such other measures which may be required to ensure maintenance of clear, hazard-free conditions and avoidance of any further accumulation of snow or ice.
- Maintain sewer and manhole covers free from ice, snow or other obstructions at all times.
- Clearing of sidewalks (are included) must be shoveled by hand or with a snow blower, no pick-up truck or heavy machinery shall be used on sidewalks; as well there should be minimal use of sodium, calcium and magnesium chloride as a de-icing chemical (rocksalt). Where no alternatives are available and de-icing chemicals must be used, use one of the following on sidewalks (only):
  - Potassium Acetate
  - Carbohydrate based solutions (refer to Appendix B)

- Initiate and provide all snow removal and salting on a timely basis.

## 7. Conclusion

This Technical Memorandum has outlined the manner in which the objectives of the City of Guelph’s *Private Salt Management Plans in the City of Guelph* guidance document shall be addressed in the proposed development of 1 Clair Road East.

In summary, there is a potential for salt application in the proposed development due to the proposed driving surfaces (driveways and parking areas) as well as pedestrian areas, sidewalks, etc. There is generally low risk of groundwater contamination from at-source salting of road surfaces, due to the general imperviousness of the site, below-grade parking structures which would intercept percolating water, and grading design which will channel runoff into catchbasins. There is a potential for contamination of the groundwater table by the existing and proposed infiltration facilities, however this will be managed and mitigated by the use of alternative de-icing agents. Operational guidelines have additionally been provided here to inform winter maintenance activities and mitigate the effects of road salt.

Please contact the undersigned with any questions.

Respectfully Submitted,



**Daniel Bancroft, P.Eng.**  
civilGo Engineering Inc.

Appendix A: Winter Maintenance & Salt Management Plan

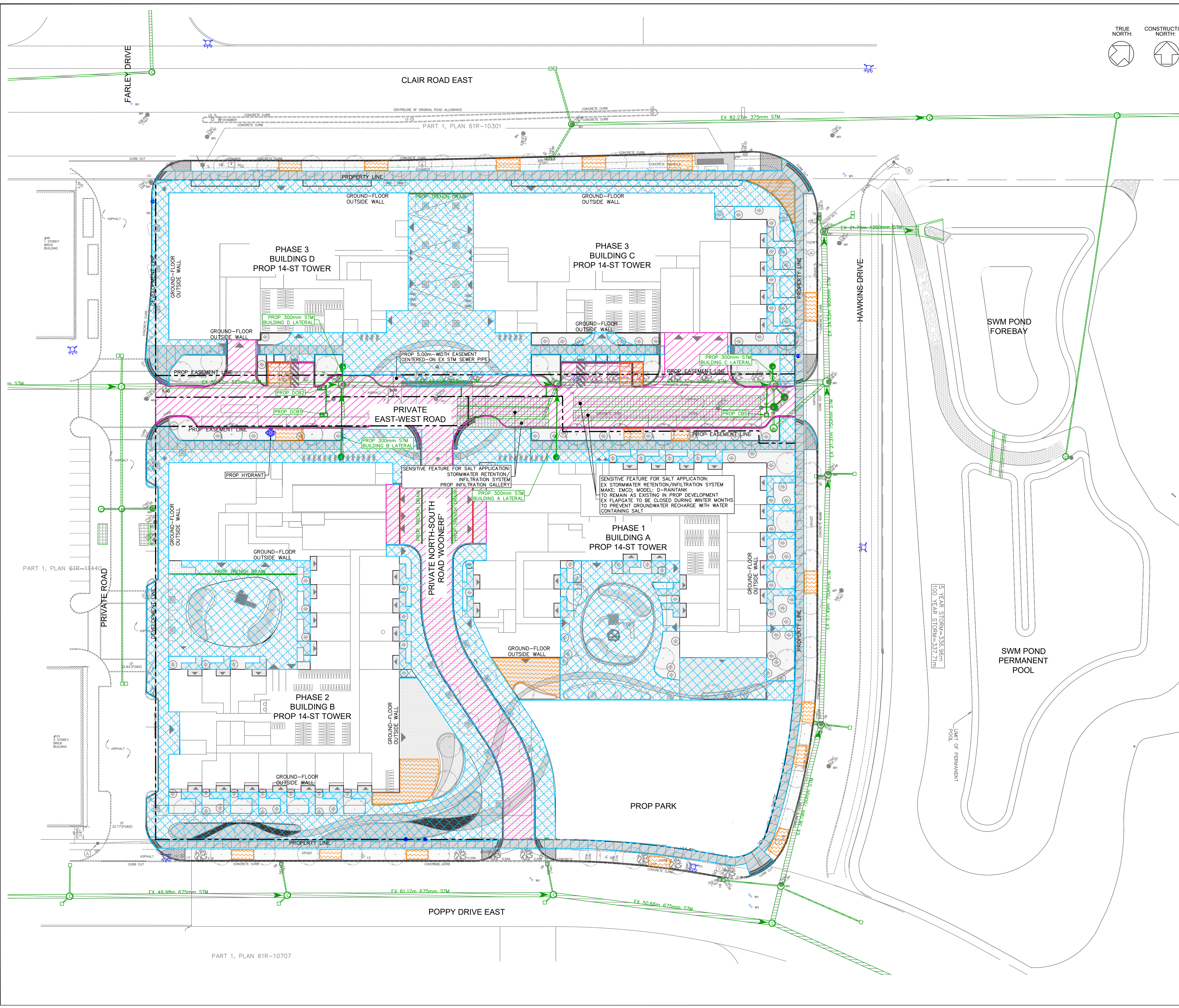
Appendix B: Product Data Sheet and Safety Sheets for De-Icing Agents

cc Kara Green, FCHT HOLDINGS (ONTARIO) CORPORATION

# APPENDIX A

- *Winter Maintenance & Salt Management Plan*

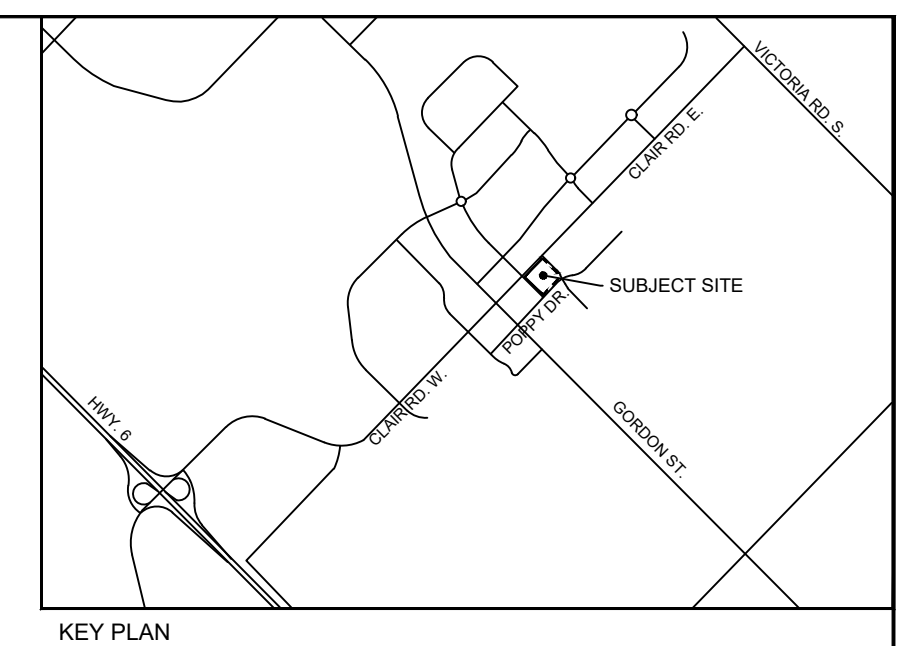




**LEGEND**

- DENOTES EXISTING FIRE HYDRANT
- DENOTES PROPOSED FIRE HYDRANT
- DENOTES EXISTING WATER VALVE
- DENOTES PROPOSED WATER VALVE
- DENOTES EXISTING CATCHBASIN
- DENOTES PROPOSED CATCHBASIN
- DENOTES EXISTING STORM MH
- DENOTES PROPOSED STORM MH
- DENOTES EXISTING STORM SEWER
- DENOTES PROPOSED STORM SEWER
- DENOTES INFILTRATION GALLERY
- DENOTES EXISTING PROPERTY LINE
- DENOTES SUBJECT SITE PROPERTY LINE
- DENOTES ON-SITE AREA OF VEHICULAR TRAFFIC REQUIRING SNOW REMOVAL & SALT APPLICATION
- DENOTES ON-SITE AREA OF PEDESTRIAN TRAFFIC REQUIRING SNOW REMOVAL & SALT APPLICATION
- DENOTES OFF-SITE AREA OF PEDESTRIAN TRAFFIC REQUIRING SNOW REMOVAL & SALT APPLICATION (ON PUBLIC R.O.W.)
- DENOTES SNOW STORAGE AREA

**NOTE**  
 THIS DRAWING SHOULD BE READ IN-CONJUNCTION WITH THE DOCUMENT TITLED 'TECHNICAL MEMORANDUM: SALT MANAGEMENT PLAN' BY CIVILGO ENGINEERING INC. (DECEMBER 2023). ALL BEST PRACTICE RECOMMENDATIONS MADE THEREIN APPLY IN COMBINATION WITH THE SNOW REMOVAL AREAS IDENTIFIED HEREON.



SCALE BAR  
 0 10 20 Meters

CLIENT

REV.	DATE	REVISIONS	INITIAL
2	JUL 25/2024	ISSUED FOR REZONING PRE-SUBMISSION REVIEW	DB
1	DEC 13/2023	ISSUED FOR OPA & ZBA SUBMISSION	DB

**civilGo** ENGINEERING INC.

civilGo Engineering Inc.  
 60 Atlantic Avenue  
 Suite 200  
 Toronto, ON  
 M8K 1X9  
 www.civilGo.ca  
 T: 437-222-2062  
 E: info@civilGo.ca

**PERGOLA COMMONS  
 PROPOSED MIXED-USE DEVELOPMENT  
 1 CLAIR ROAD EAST, GUELPH, ON**

DESIGN	D.B.	DRAWN	DRAFT	CHECKED	D.B.	PROJECT No.	23-045
SCALE:	1:400		DRAWING TITLE			SHEET	
DATE:	SEPTEMBER 2023		WINTER MAINTENANCE & SALT MANAGEMENT PLAN			CV-300	



## APPENDIX B

- Product Data Sheet and Safety Sheets for De-Icing Agents



**THE KISSNER GROUP**  
 32 Cherry Blossom Road  
 Cambridge, Ontario N3H 4R7  
 1 (800) 434-8248 • (519) 279-4860  
 Fax: (877) 434-8250



# SAFETY DATA SHEET

## Section 1: Product Identification

**Product Name** Ice Beeter™  
**Identified Uses** Melt Snow and Ice  
**Supplier's Details** The Kissner Group  
 32 Cherry Blossom Road  
 Cambridge, Ontario, Canada N3H 4R7  
**Phone Number** (519) 279-4860  
**Emergency Contact (24 Hrs)** (613) 996-6666 CANUTEC

## Section 2: Hazard Identification

**Classification (GHS)** Not Classified  
**GHS Labelling** No Labelling applicable  
**Percentage** Not applicable  
**Other Hazards** Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. When heated to decomposition, emits toxic fumes. Corrosive to metals upon prolonged contact.

## Section 3: Composition/Information On Ingredients

Ingredients	Percentage	CAS. NO.	Classification
Sodium Chloride	75.0-99.9%	7647-14-5	Not Classified
Calcium Chloride	0.01-5.0%	10043-52-4	Eye Irrit. 2A, H319
Magnesium Chloride	0.01-5.0%	7786-30-3	Not Classified
Potassium Chloride	0.01-5.0%	7447-40-7	Aquatic Acute 3, H402
Beet Extract Solution (Beet Raffinate)		N/A	
Product may contain color indicator		N/A	

## Section 4: First-Aid Measures

### Description of First Aid Measures

**General** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.  
**Inhalation** When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.  
**Skin Contact** Remove contaminated clothing. Brush off loose particles. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation persists. Wash contaminated clothing before reuse.  
**Eye Contact** Rinse cautiously with water for several minutes. Brush off loose particles. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.  
**Ingestion** Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

### Most Important Symptoms and Effects Both Acute and Delayed

**General** Dust may cause mechanical irritation to eyes, nose, throat, and lungs





**THE KISSNER GROUP**  
 32 Cherry Blossom Road  
 Cambridge, Ontario N3H 4R7  
 1 (800) 434-8248 • (519) 279-4860  
 Fax: (877) 434-8250



## Section 8: Exposure Controls/Personal Protection

<b>Control Parameters</b>	No Occupational Exposure Limits (OELs) have been established for this product or its chemical components.
<b>Appropriate Engineering Controls</b>	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed. Ensure adequate ventilation, especially in confined areas
<b>Personal Protective Equipment</b>	Protective goggles. Protective clothing. Insufficient ventilation: wear respiratory protection. Gloves.
<b>Materials for Protective Clothing:</b>	Chemically resistant materials and fabrics.
<b>Hand Protection:</b>	Wear chemically resistant protective gloves.
<b>Eye Protection:</b>	Chemical goggles or face shield.
<b>Skin and Body Protection:</b>	Wear suitable protective clothing.
<b>Respiratory Protection:</b>	Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations are expected to exceed exposure limits.



## Section 9: Physical And Chemical Properties

<b>Appearance/ Physical State</b>	Purple Colored Granules
<b>Vapour Pressure (mm Hg at 20°C)</b>	Not applicable
<b>Vapour Density (Air = 1.0)</b>	Not applicable
<b>Bulk Density</b>	Not applicable
<b>Solubility in Water</b>	Water Soluble
<b>Specific Gravity (gm/cc, Water = 1.0)</b>	Not applicable
<b>% Volatile by Volume</b>	Non-volatile
<b>Boiling Range (Deg. Celsius)</b>	Not applicable
<b>Melting Point</b>	-20 °F
<b>Coefficient of Water/Oil Distribution</b>	Not applicable
<b>pH</b>	10 (1% solution @ 20°C)

## Section 10: Stability And Reactivity

<b>Chemical Stability:</b>	Stable under normal conditions.
<b>Reactivity:</b>	When heated to decomposition, emits toxic fumes. Toxic Gas.
<b>Possibility of Hazardous Reactions:</b>	Polymerization occurs with calcium chloride when mixed with methyl vinyl ether.
<b>Conditions to Avoid:</b>	Direct sunlight. Extremely high or low temperatures. Incompatible materials.
<b>Incompatible Materials:</b>	Strong acids. Strong bases. Strong oxidizers. Reactive metals.
<b>Hazardous Decomposition Products:</b>	Toxic gases. Hydrogen chloride. Chlorine. Sodium oxides. Oxides of magnesium. Oxides of calcium.



**THE KISSNER GROUP**  
 32 Cherry Blossom Road  
 Cambridge, Ontario N3H 4R7  
 1 (800) 434-8248 • (519) 279-4860  
 Fax: (877) 434-8250



Calcium chloride (10043-52-4)	BCF Fish 1	(no bioaccumulation)
<b>Mobility in Soil</b>	Not available	
<b>Other Information</b>	Avoid release to the environment	

### Section 13: Disposal Considerations

**Waste Disposal Recommendations** Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

### Section 14: Transport Information

In Accordance with DOT	Not regulated for transport
In Accordance with IMDG	Not regulated for transport
In Accordance with IATA	Not regulated for transport
In Accordance with TDG	Not regulated for transport

### Section 15: Regulatory Information

#### US Federal Regulations

Sodium chloride (7647-14-5)	Listed on the United States TSCA (Toxic Substances Control Act) inventory
Calcium chloride (10043-52-4)	Listed on the United States TSCA (Toxic Substances Control Act) inventory
Potassium Chloride (7447-40-7)	Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### Canadian Regulations

<b>Ice Beeter™</b>	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

<b>Sodium chloride (7647-14-5)</b>	Listed on the Canadian DSL (Domestic Substances List)
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

<b>Calcium chloride (10043-52-4)</b>	Listed on the Canadian DSL (Domestic Substances List)
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects

<b>Magnesium Chloride (7786-30-3)</b>	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

<b>Potassium Chloride (7447-40-7)</b>	Listed on the Canadian DSL (Domestic Substances List)
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Identity: X1**

**Recommended use of the chemical and restrictions on use:** De-icing and anti-icing

**Manufacturer:** Liquids Revolution  
967672 Oxford-Waterloo Rd  
New Dundee, ON N0B 2E0

**Telephone:** 519 581 8292

**Emergency Phone:**

**SDS Date of Preparation:** 12/07/2020

**2. HAZARDS IDENTIFICATION**

**GHS Classification:**

Physical	Health	Environment
Not Hazardous	Eye Irritation Category 2A	Not Hazardous

**GHS Label Elements:**



Warning!

Causes serious eye irritation.

Wash thoroughly after handling.

Wear eye and face protection.

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 attention

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS No.	Amount
Water and Non-Hazardous Components	Mixture	Balance
Calcium Chloride	10043-52-4	28-32%
Magnesium Chloride	7791-18-6	0.5-2.5%
Corrosion Inhibitor Enhancer Blend	Proprietary	2-10%

**Exact formula withheld as a trade secret**



#### 4. FIRST AID MEASURES

**Eye:** Flush victim's eyes with water for several minutes, while holding the eyelids apart. Remove contact lenses if safe and easy to do. Get medical attention if irritation occurs and persists.

**Skin:** Wash skin thoroughly with soap and water. Get medical attention if irritation develops. Remove and launder clothing before reuse.

**Ingestion:** Do not induce vomiting. Rinse mouth with water and give one glass of water to drink. Never give anything by mouth an unconscious or convulsing person. Get medical attention if symptoms develop.

**Inhalation:** Remove victim to fresh air. If breathing is difficult or irritation persists, get medical attention.

**Most Important Symptoms:** Causes serious eye irritation. May cause slight skin irritation.

**Indication of immediate medical attention/special treatment:** Immediate medical attention is not required.

#### 5. FIRE FIGHTING MEASURES

**Suitable (and Unsuitable) Extinguishing Media:** Use media appropriate for surrounding fire. Cool fire exposed containers and structures with water.

**Specific hazards arising from the chemical:** Thermal decomposition may yield oxides of carbon and other harmful or irritating chemicals.

**Special Protective Equipment and Precautions for Fire-Fighting Instructions:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Aqueous solutions may cause surfaces to be extremely slippery and cause a slip hazard.

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment, and Emergency Procedures:** Avoid contact with eyes, skin and clothing. Avoid breathing mists or aerosols. Wear appropriate protective clothing as described in Section 8. Wash thoroughly after handling.

**Methods and Materials for Containment and Cleaning Up:** Dike and collect liquid or absorb with an inert absorbent and place in appropriate containers for disposal. Flush spill area with water. Report releases as required by local, state and federal authorities.

#### 7. HANDLING AND STORAGE

**Precautions for Safe Handling:** Avoid contact with the eyes, skin and clothing. Avoid breathing mists or aerosols. Wear protective clothing and equipment as described in Section 8. Wash thoroughly with soap and water after handling. Keep containers closed when not in use.

**Conditions for Safe Storage, Including Any Incompatibilities:** Store in a cool, dry, well-ventilated area away from incompatible materials.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines:

Water and Non-Hazardous Components	None Established
Calcium Chloride	None Established
Magnesium Chloride	None Established
Proprietary Corrosion Inhibitor Enhancer Blend	None Established

**Engineering Controls:** Use with adequate general ventilation to minimize exposures.

**Respiratory Protection:** In operations where exposure levels are excessive, a NIOSH approved respirator with dust/mist cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

**Skin Protection:** Wear impervious gloves such as rubber or neoprene if needed to avoid prolonged skin contact.

**Eye Protection:** Safety goggles recommended.

**Other:** Long-sleeved clothing and long pants recommended to avoid prolonged skin contact. Suitable washing facilities should be available in the work area.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance And Odor:** Clear to amber liquid.

<b>Physical State:</b> Liquid	<b>Odor Threshold:</b> Not established
<b>Vapor Density:</b> Not determined	<b>Initial Boiling Point/Range:</b> Not determined
<b>Solubility In Water:</b> Soluble	<b>Vapor Pressure:</b> Not determined
<b>Relative Density:</b> 1.30 – 1.34	<b>Evaporation Rate:</b> Not determined
<b>Melting/Freezing Point:</b> 1:1 Freeze Point with water is 0°F (-17.8°C)	<b>pH:</b> As sold: 4 - 9 Diluted 1:4: 6 - 9
<b>VOC Content:</b> Not determined	<b>Octanol/Water Coefficient:</b> Not determined
<b>Solubility:</b> Dispersible	<b>Decomposition Temperature:</b> Not determined
<b>Viscosity:</b> <60 cP @ 70°F	<b>Flammability (solid, gas):</b> Not applicable
<b>Flashpoint:</b> Not determined	<b>Autoignition Temperature:</b> Not determined
<b>Flammable Limits: LEL:</b> Not determined	<b>UEL:</b> Not determined

## 10. STABILITY AND REACTIVITY

**Reactivity:** Not normally reactive.

**Chemical Stability:** Stable under normal storage and handling conditions.

**Possibility of Hazardous Reactions:** Calcium chloride may react with zinc and release hydrogen gas.

**Conditions to Avoid:** None known.

**Incompatible Materials:** Strong oxidizing agents, concentrated acids, and some metals.

**Hazardous Decomposition Products:** When heated to decomposition emits oxides of carbon and other harmful or irritating chemicals.

## 11. TOXICOLOGICAL INFORMATION

### HEALTH HAZARDS:

**Ingestion:** Ingestion may cause slight irritation with nausea, vomiting and diarrhea.

**Inhalation:** Inhalation of mists may cause slight irritation of the nose throat and upper respiratory tract.

**Eye:** May cause moderate irritation with pain and tearing.

**Skin:** May cause slight irritation on prolonged or repeated contact.

**Sensitization:** This material is not known to cause sensitization.

**Chronic:** None known.

**Carcinogenicity:** None of the components is listed as a carcinogen or suspected carcinogen by IARC, NTP or OSHA.

**Germ Cell Mutagenicity:** None currently known.

**Reproductive Toxicity:** None currently known.

### Numerical Measures of Toxicity:

No data available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity:

Product: Fathead minnow NOEC: 1.00 g/L; Ceriodaphnia dubia NOEC: 1.00 g/L; Pseudokirchneriella subcapitata growth NOEC: 3.00 g/L

**Persistence and Degradability:** Biodegradation is not applicable to inorganic substances.

**Bioaccumulative Potential:** No data available

**Mobility in Soil:** No data available

**Other Adverse Effects:** None known

## 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state and federal environmental regulations.

## 14. TRANSPORT INFORMATION

### DOT Hazardous Materials Description:

Proper Shipping Name: Not regulated

UN Number: None

Hazard Class/Packing Group: None

Labels Required: None

## 15. REGULATORY INFORMATION

**CERCLA:** This product is not subject to CERCLA release reporting. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**SARA Hazard Category (311/312):** Refer to Section 2 for OSHA Hazard Classification.

**SARA 313:** This product contains the following chemicals subject to Annual Release Reporting Requirements under SARA Title III, Section 313 (40 CFR 372): None



**EPA TSCA Inventory:** All of the ingredients in this product are listed on the EPA TSCA Inventory.

**CANADA:**

This product has been classified under the CPR and this SDS discloses information elements required by the CPR.

**Canadian CEPA:** All the components of this product are listed on the Canadian DSL.

<b>16. OTHER INFORMATION</b>
------------------------------

**NFPA Rating:** Health = 1

Flammability = 0

Instability = 0

**HMIS Rating:** Health = 2

Flammability = 0

Physical Hazard = 0

Disclaimer: *This Safety Data Sheet (SDS) is provided in response to customer requests to address the safe handling of the product. All statements, technical information and recommendations contained herein are the best of our knowledge, reliable and accurate. This SDS is not intended to make any representation as to how the product will perform when used for its intended purpose by a user. In that regards the product is sold "AS IS" and nothing in this SDS should be deemed to be a representation or warranty of any injury, loss, or damage, of any kind or nature, which are sustained by or arise from the use of the product. Nothing in this SDS is intended to be a representation or warranty by the manufacturer of the accuracy, safety, or usefulness for any purpose of any technical information, materials, techniques, or practices. The information contained in this Safety Data Sheet is, to the best of our knowledge, accurate and reliable. This information should be provided to all individuals handling this product. Federal, state, and local regulations should be followed when handling this product.*