

PART E
SPECIFICATIONS

PART E - SPECIFICATIONS

GENERAL

E1. GENERAL

E1.1 These Specifications shall apply to the Work.

E2. GOODS

E2.1 The Contractor shall supply and deliver a liquid de-icing agent (calcium chloride) in accordance with the requirements hereinafter specified.

E2.1.1 Liquid Calcium Chloride (CaCl₂) having a minimum of 29% to a maximum of 31% total Calcium Chloride content by weight, with an approved corrosion inhibitor.

E2.1.2 The amount of suspended solids in the liquid calcium chloride with corrosion inhibitor shall not exceed 2% of weight.

E2.1.3 The liquid Calcium Chloride with corrosion inhibitor shall be a minimum of 50% less corrosive than NaCl₂ based on test method SHRP H-205.7 in SHRP-H332, "Handbook for Test Methods for Evaluating Chemical De-icers."

E2.1.4 The Contractor upon a request from the Contract Administrator shall be required to complete Table 1 (Calcium Chloride Brine Analysis) for evaluation within three (3) Calendar days

- a) Detailed information on the corrosion inhibitor must be included. The minimum corrosion inhibitor concentration percentages and appropriate laboratory procedures for verification shall be provided.
- b) The Contractor shall fill in Table 1 (Calcium Chloride Brine Analysis), and identify the product he/she proposes to supply throughout the term of the contract. The Contractor shall not substitute products without the prior written approval of the Contract Administrator in accordance with clause B5.2.

E3. DELIVERY

E3.1 Goods shall be delivered on an "as required" basis during the term of the Contract, f.o.b. destination, freight prepaid, to various locations within the City.

E3.1.1 Goods shall be delivered within one (1) Business Days of the placing of an order, except where otherwise agreed at the time of ordering.

E3.1.2 The minimum order for goods shall be 10,000 litres per delivery.

E3.2 Goods shall be delivered between 8:00 a.m. and 4:00 p.m. on Business Days.

E3.3 The Contractor shall off-load goods as directed at each delivery location, by the suppliers' vehicles equipped with a pumping off loading system. All unloading will be pumped into storage tanks. Unloading at the site locations will not be permitted between the hours of 22:00 hours and 07:00 hours unless an emergency condition exists.

E3.4 The Contractor shall record goods delivered in a stores record receipt book kept at each site. Each delivery shall be accompanied with the suppliers packing slip (delivery slip) confirming the quantity by litre of product being delivered:

- a) all environmental liability, i.e. spill mitigation, containment and cleanup, is the responsibility of the Contractor.

E3.5 The following delivery addresses, are provided for the convenience of the Contractor only. The City reserves the right to revise locations as required by changes in its operations during the term of the Contract.

1220 Pacific Avenue

1539 Waverley Street

590 St. Anne's Road

849 Ravelston Avenue West

Table 1 – Liquid De-Icer Brine Analysis

Liquid De-icer Brine Analysis

Calcium Chloride

Sample Description		Bidders Statement of Analysis
Total Solids,	By Drying (%) Calculated (%)	
Suspended Solids	(%)	
PH, 1/10 Dilution		
Specific Gravity at 15.6°C		
Calcium Content,	As Ca(%) As CaCl ₂ (%)	
Magnesium Content,	As Mg(%) As MgCl ₂ (%)	
Potassium Content,	As K(%) As KCl (%)	
Sodium Content,	As Na (%) As NaCl (%)	
Chloride Content (%)		
Precipitation (°C)		
Freezing point (°C)		
Corrosion Inhibitor Information		
Corrosion Test Results (SHRP H-205.7)		
Product Identification		

 Name of Bidder