

## Product Evaluation

### RE: Review of Beet 55 Anti-icing and De-icing

#### **PRODUCT**

The Beet 55 Anti-icing and De-icing product is manufactured and distributed in Alberta by LuGr Enterprises Incorporated located in Red Deer, Alberta. Product Web Link: <http://www.lugrenterprises.com/>

#### **VENDOR CLAIMS AND INFORMATION**

##### **CLAIMS**

Beet 55 can be used proactively as an anti-icing product. Derived from a sugar beet by-product, when Beet 55 is blended with sodium chloride brine (at a ratio of 65% brine/ 35% Beet 55) the freeze point is lowered from -8C to in excess of -26C. This blend which has reduced chloride concentration is 70% less corrosive than the sodium chloride brine alone. Beet 55 enables traditional anti/de-icing products (road salt, sodium chloride) to remain effective at much lower temperatures than they would by themselves. Beet 55 is non-TDG regulated, and is considered to be an environmentally friendlier alternative.

##### **DESCRIPTION**

Beet 55 is primarily derived from a sugar beet by-product. When blended with a sodium chloride brine (at a ratio of 65% brine/35% Beet 55), the product becomes what is known as Beet 55 Juice. Beet 55 Juice therefore has a chloride concentration of approximately 17%.

##### **POTENTIAL USAGE**

Suitable for use in Anti-Icing, De-Icing, Pre-Wetting systems, Sand stockpile treatments (freeze-proofing), and Salt stockpile treatments (melting enhancer).

##### **STANDARDS**

Clear Roads (formerly Pacific Northwest Snowfighters Association)

#### **ALBERTA TRANSPORTATION COMMENTS**

##### **EXPERIENCE**

Alberta Transportation has no experience with this product.

**APPLICABLE STANDARDS** The Alberta Transportation Specifications for ice control are:

- Specification 52.5, Sodium Chloride Treated Sand
- Specification 52.6, Calcium Chloride Treated Sand
- Specification 52.8, Supply of Sodium Chloride (Salt)

##### **RECOMMENDATIONS:**

Beet 55 Anti-icing and Di-icing product be listed as a Proven Product under Alberta Transportation Products List, De-icing Chemicals – Proprietary, based on the information provided.

#### **TRIAL PROJECTS**

South West section of Anthony Henday, City of Calgary Roads

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