

Product Evaluation

RE: Review of ECO-ST

PRODUCT

ECO-ST is a Deicing product manufactured by STARs tech Co. Ltd located in South Korea and distributed in Alberta by Value Commerce and Trade Ltd. located in Edmonton. Website: <https://starstech.co.kr/eng/>

VENDOR CLAIMS AND INFORMATION

CLAIMS

ECO-ST is an eco-friendly deicer produced using specially formulated starfish extracts. The product addresses corrosion and environmental issues with conventional salt while offering superior snow melting performance. ECO-ST minimizes the cost of repairing roads, bridges, vehicles, and guardrails by preventing accidents and minimizing steel corrosion and concrete breakage rates. ECO-ST is 166% more effective when compared with sodium chlorides solutions for snow melting performance while providing a level of maintenance up to 3 times greater than calcium chlorides. ECO-ST boasts a major reduction in corrosion rate, close to 0%, at 0.8% corrosion, far exceeding the standard 30% corrosion rate required for an eco-friendly deicer. It minimizes the damage to roadside trees and vegetation caused by chloride ions and reduces corrosion to infrastructure and personal property.

DESCRIPTION

ECO-ST is formulated from Starfish extract. It is in granular form. When there is more than 5 cm of snow, snow needs to be removed moderately before spraying the product.

POTENTIAL USAGE

On Highway surface

STANDARDS AND TEST REPORTS

Residual Rate Test Report, Corrosion Test Report, Freezing and Thawing for Concrete Breakage Test Report, Ice Melting Test Report

ALBERTA TRANSPORTATION COMMENTS

EXPERIENCE

Alberta Transportation has no experience with this type of 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

ECO-ST be listed as a Proven Product under Alberta Transportation & Economic Corridors Products List, De-icing Chemicals - Proprietary, based on the information provided and based on field performance at Trial Sites.

RESTRICTIONS ON USE / CAVEATS

As suggested in Eco-ST Environmental Evaluation Report submitted by Value Commerce and Trade Ltd. Star's Tech and Value Commerce and Trade Ltd. continue to conduct regular QA/QC procedures for ECO-ST to ensure product quality over time.

TRIAL PROJECTS

Hwy 22:X and Hwy 201 ramps Calgary

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