

Liquid Anti and De-ice Chemicals (including additives)

Vendor Checklist for Preliminary Screening

Minnesota Department of Transportation

Submitted by _____ Date _____

Company _____

Address _____

Contact Person _____ Phone () _____

To insure that chemicals for de-icing and anti-icing are evaluated for use by Mn/DOT, certain specific information is required. The following checklist has been formulated to insure that the vender and or manufacturer supply the required information. Mn/DOT intends to prescreen materials based on the information submitted prior to doing any laboratory or field evaluation. Other information may be required after the preliminary evaluation is started.

Do Not Submit Product Samples with the Pre-screen Packet, and please label any proprietary information submitted.

The following information is required both for finished products and for additives intended to enhance the performance or provide benefit to existing de-ice and anti-ice chemicals. The information received will be sent for review to the Mn/DOT Chemical Laboratory, Mn/DOT Safety Office, and the Mn/DOT Office of Environmental Services for pre-screen evaluation. **Upon request only**, a 1 gallon liquid sample or 2 pounds of the dry chemical will be made available for testing purposes.

Deicer tests will be: freezing point, solubility, ice melting capacity, ice penetration, ice undercutting, corrosive effects on metals, rapid evaluation on concrete, and frictional characteristics.

Anti-icer tests will be: freezing point, solubility, ice melting capacity, corrosive effects on metals, rapid evaluation on concrete, and frictional characteristics.

NOTE: ALL INFORMATION REQUESTED BELOW MUST BE SUPPLIED BEFORE THE PROCESS FOR PRELIMINARY SCREENING CAN BEGIN. Place a checkmark in the box when the information is placed in the preliminary test packet. Not supplying all information below will **immediately disqualify** the request for preliminary screening and further evaluation. When completed include this form in the prescreen packet.

Name of chemical/product for prescreen: _____

(Note: A separate checklist must be completed for each product submitted.)

Liquid chemicals will be tested as they are received.)

Written certification that no **detectable** quantities of the following chemicals are
Contained in the product:

Dioxins

Furans

Polychlorinated Biphenyls (PCBs)

Octachlorostyrene

Hexavalent Chromium

Polyaromatic

Hydrocarbons,

Radioactive materials

Registered Pesticides

The following analyses for information purposes for liquid products or solid
products that will be converted into a liquid product for application purposes.

Testing of the following parameters shall be done in accordance with the testing
methodology listed in the Pacific Northwest Snowfighters specifications.

Ammonia – Nitrogen

Total Kjeldahl Nitrogen

Nitrate and Nitrate as Nitrogen

Biological Oxygen Demand

Chemical Oxygen Demand

Frictional Analysis

Toxicity Testing:

Rainbow Trout or Fathead Minnow Toxicity Test

Ceriodaphnia Dubia Reproductive and Survival Bioassay

Selenastrum capricornutum Algal Growth

List of chemical constituents in product - identification and quantification

Product Data Sheet

Most recent Material Safety Data Sheet for product

Most recent Material Safety Data Sheet for corrosion inhibitor (if applicable)

Status on the Pacific Northwest Snowfighters Qualified Products List.

Recommended field application rates and application technique in chart form if available
(e.g. dilution rate, pretreatment technique, etc.).

List of agencies currently using the product.
pH data (liquid products only)

No product shall be submitted unless it is at least 70% less corrosive than sodium chloride (excluding additives to salt brine) using the National Association of Corrosion Engineers (NACE) Standard TM-01-69 (1995 rev.), modified to use 30ml of a 3% chemical product solution per square inch of coupon surface area. Test data and certification that the material meets corrosion criteria must be included.

Data that states that the following concentrations are not exceeded in the finished product (If product to be purchased is premixed with salt brine, provide the following concentrations for both the salt brine alone and the finished premixed product):

Phosphorus 25.00 ppm (Based on a 1:100 solution) Cyanide 0.20 ppm ppm =
mg/L Arsenic 5.00 ppm Copper 0.20 ppm Lead 1.00 ppm Mercury 0.05 ppm
Chromium 0.50 ppm Cadmium 0.50 ppm Barium 10.00 ppm
Selenium 5.00 ppm Zinc 10.00 ppm

Return this form along with required information to: Tom Peters Minnesota Department of
Transportation Maintenance Research and Training Engineer Mail Stop 722 395 John Ireland
Blvd. St. Paul, Minnesota 55155-1899 651/366-3578