

Solid runway de-icing fluid **SAFEWAY® SF**



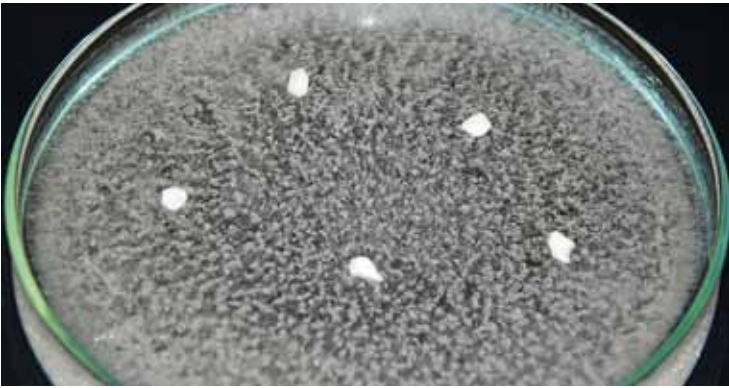
SAFEWAY® SF

Clariant is the global leader in aircraft and runway de-icing products with over 40 years of experience. Our outstanding expertise in business relationships, product service, logistics and our world class research team make Clariant's Safewing®, Max Flight™, Octaflo™ and Safeway® products your preferred choice in the aviation business.

Safeway® SF is an advanced sodium formate based runway and apron de-icing solid. The formulation makes Safeway® SF an extremely effective and easy applicable de-/anti-icing product that gives long-term protection against snow, slush and ice.

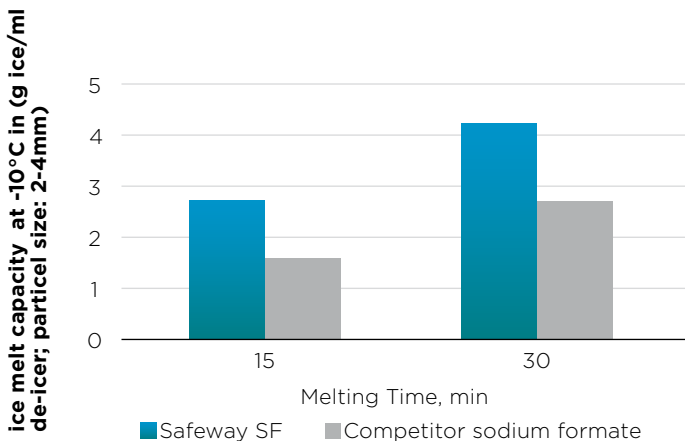
MAXIMIZED ICE PENETRATION

The ability of solid de-icers to penetrate through ice layers and undercut them is very important. This is reflected by the ice penetration ability. Safeway® SF provides excellent ice penetration, as shown below.



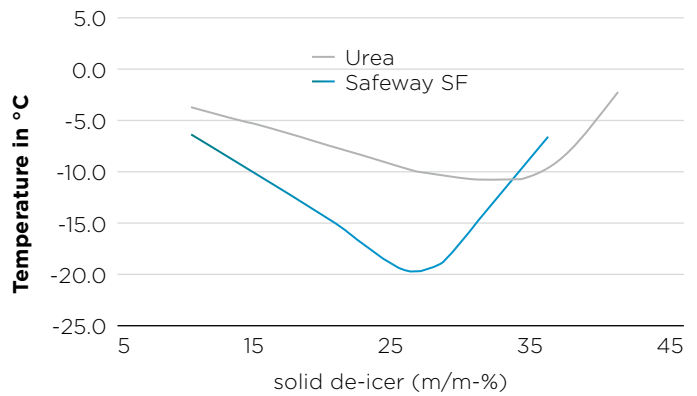
INCREASED EFFICIENCY

The characteristic can be demonstrated as ice melting capacity. The Safeway® SF formulation provides an excellent ice melting capacity, as shown below.



LOWER FREEZING POINT

During precipitation applied runway de-icers are diluted and, thus, the freezing point of the solution on the runway increases. Which results in earlier re-freezing. Therefore, solid de-icers need to show a good freezing-point depression, as shown below.



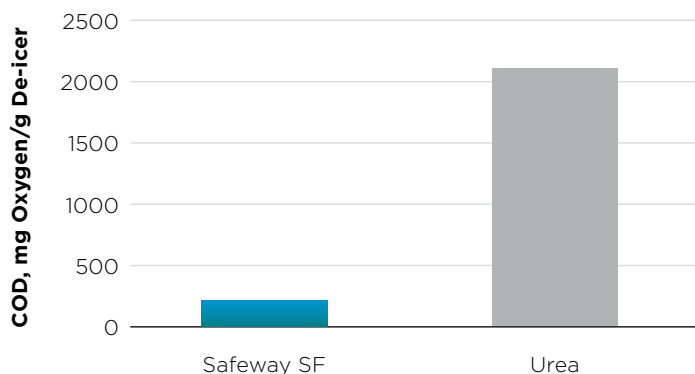
COMMERCIAL BENEFITS

Extended endurance times and ease of ice/slush removal optimizes time, personnel, fuel and operational costs. During periods of precipitation every minute the runway surface maintains its friction performance is absolutely vital. Using the right fluid during winter operations will optimize airport traffic and minimize costly delays. The excellent environmental profiles of Safeway® SF helps reducing the costs of expensive runway effluent treatment.



ENVIRONMENTAL BENEFITS

New and developing environmental legislation requires that airports manage their effluent streams and ensure minimal environmental impact. The formate formulation has considerably less COD than glycol and urea based products and about one third the COD of acetate based de-icers.



ADDITIONAL BENEFITS

- Chloride, nitrate, nitrite, and triazole free
- Low toxicity to flora and fauna
- Helps airports meet ecological requirements
- Readily biodegradable

IMPROVED CORROSION PROTECTION

Safeway® SF maximizes material compatibility due to the unique corrosion inhibitor system, fulfilling and exceeding the international standard AMS 1431.

PRODUCT PROPERTIES

Chemical Composition	approx. 98 % sodium formate
Appearance	white solid
Bulk density	approx. 941 kg/m ³
pH (50 g/l at 20°C)	approx. 11.5

CERTIFICATIONS AND APPROVALS

Safeway® SF is certified to the latest version of the international standard AMS 1431.

APPLICATION

Safeway® SF can be applied using conventional spreaders. The amount of Safeway® SF must be adjusted according to the weather situation and runway conditions.

DELIVERY & STORAGE

Safeway® SF is available in 1000 kg, 500 kg and 25 kg bags. In order to avoid sticking always use properly labeled tanks to prevent possible contamination.

www.aviation.clariant.com
aviation@clariant.com

Contact Europe

Clariant International Ltd
BU Industrial & Consumer Specialties
Rothausstrasse 61, CH-4132 Muttenz

Commercial: +44 1454 411 789
Technical: +49 8679 752 14

Contact USA

Clariant Corporation
BU Industrial & Consumer Specialties
625 East Catawba Ave
Mt Holly, NC 28120

Commercial: +1 704 822 2677
Technical: +1 704 822 2184

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