European Union Aviation Safety Agency

Safety Information Bulletin

Airworthiness – Operations

SIB No.: 2025-09

Issued: 28 November 2025

Subject: **Potential de-/anti-icing fluids offered at European airports not-fully conforming to their initial qualification**

Ref. Publications:

- Commission Regulation (EU) 965/2012 and EASA Decision 2014/015/R: CAT.OP.MPA.250 "Ice and other contaminants – ground procedures" and Guidance Material GM 1 to 3 to CAT.OP.MPA.250, as last amended.
- FAA Holdover Times Winter 2025-2026 Guidelines (or TCCA equivalent).
- SAE AS6285 'Aircraft Ground Deicing/Anti-Icing Processes', latest revision.
- SAE AMS1424 'Fluid, Aircraft Deicing/Anti-Icing, SAE Type I' and SAE AMS1428 'Fluid, Aircraft Deicing/Anti-Icing, Non-Newtonian (Pseudoplastic), SAE Types II, III, and IV', latest revision.

Applicability:

Aeroplane operators and de-icing service providers.

Description:

EASA has been made aware of some de/anti-icing fluids offered at European airports that might not conform to their initial qualification, and, as a consequence, might not perform as expected.

Ad-hoc aerodynamic and anti-icing performance testing conducted on fluid samples taken from some European airports have not been conclusive: while the results obtained during this testing fulfilled the SAE AMS 1424 and SAE AMS 1428 specifications, some of the results were below the expected values when comparing them with the results obtained during the fluids' initial qualification.

From these results it is uncertain whether non-conforming fluids are indeed offered at the airports or whether the test results discrepancies can be attributed to variations of the testing conditions or variations of the specific sample tests, like their age or storage conditions. If the fluids were non-conforming, they could *fail*[i] before the expected Holdover Time for the specific fluid (as published in the FAA or TCCA Holdover Time winter 2025-2026 Guidelines) for given sets of environmental conditions (i.e. ambient temperature, precipitation type and intensity), or the fluids could cause aerodynamic interference slightly higher than usual at temperatures close to the Lowest Operational Use Temperature (LOUT), as quoted in the Guidelines.

If the situation of non-conforming fluids were true, based on the results of ad-hoc tests conducted and the fact that the fluids, as offered, have already been used during previous winters and EASA is not aware of any associated incidents, the expected potential impact on aircraft performance

and/or Holdover Time would be minor, and these impacts could be further reduced by following the recommendations provided below.

At this time, the safety concern described in this SIB is not considered to be an unsafe condition that would warrant Airworthiness Directive (AD) action under Regulation (EU) 748/2012, Part 21.A.3B, nor does it warrant the issuance of a safety measure under Regulation (EU) 965/2012, Annex II, ARO.GEN.135(c) and it is issued to raise awareness of the situation described.

Recommendation(s):

1. To de-icing service providers:
    a. Report to the aerodrome's national competent authority and to EASA if, at fluid delivery tests or fluid pre-season checks stipulated in SAE AS6285, the fluids do not perform as per their technical specifications and your fluid supplier does not provide convincing explanations for this. Quarantine the fluid batches concerned if needed. Be aware that a non-conforming fluid could still yield satisfactory results of the above-mentioned tests[ii].
    b. Consider some extra margin for LOUT. For instance, when ambient temperature is only 3°C warmer than the LOUT for a diluted thickened fluid, consider the use of this fluid neat instead of diluted, when possible and in coordination with the operator.

2. To aeroplane operators:
    a. Always perform the pre-take-off check[iii] for proper fluid condition just prior to initiating take-off (this is especially relevant when the Holdover Time is close to expire and where the environmental conditions have worsened) and ask for a new de-icing/anti-icing treatment if needed.
    b. If the fluid *fails*, ask for a new de-icing/anti-icing treatment prior to take-off and report to your national competent authority and EASA in case that the fluid has failed prior to the expected Holdover Time.

Contact(s):

For further information contact the EASA Safety Information Section, Certification Directorate.
E-mail: ADs@easa.europa.eu.

---

[i] Fluid failure is the condition when the fluid does not absorb the freezing precipitation anymore. It is identified when the fluid color changes to white, loses its gloss, or by the presence of ice crystals/snow on the fluid film.
[ii] Fluid delivery tests or fluid pre-season checks (i.e. fluid appearance, pH, refractive index and viscosity field or lab tests) can identify a contaminated or degraded fluid. However, they will not necessarily capture if the fluid has degraded aerodynamic or anti-icing characteristics.
[iii] Pre-take-off check: The flight crew should continuously monitor the weather conditions after the de-icing/anti-icing treatment to assess whether the applied holdover time (HOT) is still appropriate. Within the aircraft's HOT and prior to take-off, the flight crew should check the aircraft's wings or representative aircraft surfaces for frozen contaminants.