

## 1. SCOPE

AS 5062:2022 is the current Australian Standard, which was first published in 2006, that specifies requirements for vehicular fire suppression systems. AS 5062 was the first Standard published internationally to specifically provide requirements for pre-engineered fire suppression systems intended for vehicular applications. All references to AS 5062 or “the Standard” in this document exclusively refer to AS 5062:2022.

This document specifies performance property requirements and pathways for ActivFire® certification of liquid extinguishing agents claiming to be fluorine-free seeking in accordance with Test No. 22 of Appendix D of AS 5062. Certification by ActivFire® of a liquid extinguishing agent to this document is only available in conjunction with certification of a fire protection system meeting the full relevant requirements of AS 5062.

## 2. REFERENCED DOCUMENTS

Details of the documents referenced by this Technical Specification are detailed in Table 1.

**Table 1 List of documents referenced by this technical specification.**

AS 5062:2022	Fire protection for mobile and transportable equipment
AS ISO/IEC 17025:2018	General requirements for the competence of testing and calibration laboratories

## 3. TECHNICAL VERIFICATION PROCEDURE

This Technical Verification Procedure requires that a proportion of the documentation submitted as evidence of conformity to AS 5062 be records and reports from recognised testing agencies. These records and reports shall be prepared in accordance with suitable and relevant protocols, standards, or specifications. A final verification of conformity report shall be published by an ActivFire® Recognised Agency for Conformity Evaluation (RACE).

Verification of conformity of the fluorine-free liquid extinguishing agents, for the purposes of a CSIRO product certification scheme, requires the following activities detailed in Table 2.

**Table 2 Activities required by TS-019 to verify conformity of a vehicular fire suppression systems for the purposes of certification.**

Activity	Description
1	Verification that the fluorine-free liquid extinguishing agent meet the requirements of Test No. 22 of Appendix D of AS 5062 by a RACE.
2	Review of the design manual.
3	Identification of system and component limitations.
4	Ongoing verification of conformity activities required for re-validation.

Evidence for conformity shall be provided through validated external test reports from recognised external agencies and/or laboratories.

The Verification of Conformity report shall contain the evidence of conformity addressing the review of system documentation, component lists, system limitations and any requirements for the ongoing verification of conformity activities detailed in the relevant clauses of AS 5062.

## 4. EVALUATION

### 4.1. Activity 1

To meet the requirement of Activity 1, a test report issued by a NATA-accredited laboratory (or laboratory recognised under the International Laboratory Accreditation Cooperation (ILAC) framework) containing the following information shall be submitted to a RACE for verification, demonstrating the that:

1. The content of PFOS (PerFluoro Octanyl Sulfonate) and/or PFHxS (PerFluoro Hexanoic Sulfonate) does not exceed 10 mg/kg (ppm), when subjected to sum of C7 to C14 PFAS substance testing using Total Oxidizable Precursor (TOP) Assay.
2. The content of PFOA (PerFlouro Octanic Acid) and/or its related pre-cursor substances does not exceed 50 mg/kg, when subjected to sum of C7 to C14 PFAS substance testing using TOP Assay.
3. The content of fluorinated organics do not exceed 1 mg/kg (ppm) of Total Organic Fluorine (TOF) when tested using combustion ion chromatography.

The tests shall be applied to the most concentrated form of the liquid extinguishing agent being used to prepare the final extinguishing agent solutions and shall be verified by the RACE.

### 4.2. Activity 2 and 3

To meet the requirements of Activity 2 and 3, the applicant shall submit the design manual for review which shall include any conditions and limitations of the system and the liquid extinguishing agent. The design manual shall be included in the report published by the RACE.

### 4.3. Suitability of External Evidence

Assessment of the suitability of external agencies (laboratory) evidence shall be conducted in accordance with the CSIRO Recognition Framework.

Evidence of conformity, in the form of endorsed test reports written in English, are required to be submitted in full. Where test reports were originally produced in a language other than English, suitable translations shall be supplied in addition. Submitted external test reports must provide sufficient detail to describe the product being evaluated in full and in detail and establish that an evaluation schedule was designed and applied to each component submitted to the external agency.

External evidence can only be accepted where verification between the product submitted for evaluation and the specimens in the endorsed test report is considered a critical requirement. Where external reports do not provide sufficient product identification, additional evaluation to specified requirements may be required.

### 4.4. Certificates of Conformity

Certificates, such as those published by a Conformity Assessment Body, do not provide direct and sufficient detail for the purposes of evaluation of conformity in accordance with this Technical Specification.

### 4.5. Reporting

A conformity evaluation report shall be provided upon completion of a successful evaluation and include relevant information specified as follows:

- a) A statement of conformity with reference to CSIRO-TS019 and unambiguous designation that all systems have been evaluated in accordance with this Technical Specification.
- b) All other information in accordance with the reporting requirements of Australian Standard AS ISO/IEC 17025:2018.

## 5. ONGOING VERIFICATION OF CONFORMITY

To maintain ongoing certification with the Scheme, the fluorine free extinguishing agent shall be subject to a post-certification surveillance activity described Table 3.

**Table 3 Activities required to demonstrate ongoing conformity.**

Activity	Description	Comments
1	Verification that the liquid extinguishing agent meets the fluorine-free requirement 24 months after the first issue date of the Certificate of Conformity.	<ul style="list-style-type: none"><li>Submission of test report by a NATA accredited laboratory (or recognised under the International Laboratory Accreditation Cooperation (ILAC) framework) containing the requirements of Test No 22 of Appendix D of AS 5062.</li></ul>

### 5.1. Reporting

An ongoing verification of conformity report shall be provided upon completion of a successful verification and include relevant information specified as follows:

- a) A statement with reference to CSIRO-TS019 and unambiguous designation that all activities have been evaluated in accordance with this Technical Specification.
- b) All other information in accordance with the reporting requirements of Australian Standard AS ISO/IEC 17021.1:2015.

## 6. REVISION HISTORY

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Document version no:	Issued date:	Change description
1	02-Apr-2024	<ul style="list-style-type: none"> <li>New Document</li> </ul>