



**Australian Government**

**National Measurement  
Institute**

**Australian Certified Reference Material (ACRM)**

**Certification of a reference material in Accordance with Regulation 48 of the *National Measurement Regulations 1999* (Cth) in Accordance with the *National Measurement Act 1960* (Cth)**

**Name and/or description of the ACRM:** Aqueous ethanol solution

**Identifying marks and batch number:** ETOH 24-02

**Date on which property values of the ACRM were established:** 11 September 2024

**Date of certification:** 8 October 2024

**Date of expiry of certificate:** 10 October 2025

**Certified property value of the ACRM:** 1.23 g of ethanol per kg of solution

**Method used to establish the property value:** Exact matching double isotope dilution gas chromatography mass spectrometry

*The reported property values are traceable to Australian legal units of measurement by comparison, directly or indirectly, with Australian primary standards of measurement and/or Australian certified reference materials.*

**Uncertainty of certified property value:**  $\pm 0.02$  g of ethanol per kg of solution ( $k=2.0$ )

This uncertainty has been ascertained in accordance with the principles in JCGM 100: 2008 *Evaluation of Measurement Data — Guide to the Expression of Uncertainty in Measurement*, with an interval estimated to have a confidence level of 95% at the time of certification.

**Storage and transport information relevant to the certification:** Store at 4 – 10 °C.

Stability under transport conditions has been demonstrated at 40 °C for up to seven days.

**Signature:** 

**Date:** 8 October 2024

**Name of signatory:** Raluca Iavetz

**Position held:** Manager, Chemical Reference Values

Being a person with powers delegated by the Chief Metrologist under Section 18D of the National Measurement Act 1960 (Cth) in respect of regulation 48 of the *National Measurement Regulations 1999* (Cth) (the Regulations), I hereby certify the above reference material as an Australian certified reference material in accordance with the Regulations.