



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

AnalytiChem Canada Inc
21800 Clark Graham
Baie d'Urfé, Quebec, Canada H9X 4B6

Fulfills the requirements of

ISO 17034:2016

In the field of

REFERENCE MATERIAL PRODUCER

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

A handwritten signature in black ink, appearing to be 'J. Stine', is positioned above a horizontal line.

Jason Stine, Vice President

Expiry Date: 15 June 2027

Certificate Number: AR-3219



This reference material producer is accredited in accordance with the recognized International Standard ISO 17034:2016.
This accreditation demonstrates technical competence for a defined scope and the operation of a reference material producer quality management system.

SCOPE OF ACCREDITATION TO ISO 17034:2016

AnalytiChem Canada, Inc.

21800 Clark Graham
Baie d'Urfé, Quebec, Canada H9X 4B6

Fatiha Riane quality.montreal@analytichem.com

REFERENCE MATERIAL PRODUCER

ISO/IEC 17034 Accreditation Granted: **15 June 2025**

Certificate Number: **AR-3219** Certificate Expiry Date: **15 June 2025**

Chemical Properties

| Type of Reference Material | Description of the Reference Material Matrix or Artifact including the Property-Properties Characterized | Method or Techniques Used by the RMP Laboratory to Determine the Assigned Value (if Appropriate) |
|---|--|--|
| Reference Materials and Certified Reference Materials | Concentration of aqueous solution single-element or multi-element solutions | Value transfer from an RM to a closely matched candidate RM performed using a single measurement procedure performed by one laboratory. ICP-AES ICP-MS Balance (gravimetric preparation) |
| Reference Materials and Certified Reference Materials | Purity of neat elements | Characterization based on mass or volume of ingredients used in the preparation of the RM. ICP-AES ICP-MS |
| Reference Materials and Certified Reference Materials | Concentration of single or multiple anions and cations in aqueous solutions | Value transfer from an RM to a closely matched candidate RM performed using a single measurement procedure performed by one laboratory. IC ICP-AES ICP-MS Titration Balance (gravimetric preparation) |

Chemical Properties

| Type of Reference Material | Description of the Reference Material Matrix or Artifact including the Property-Properties Characterized | Method or Techniques Used by the RMP Laboratory to Determine the Assigned Value (if Appropriate) |
|---|--|--|
| Reference Materials and Certified Reference Materials | pH value of aqueous buffer solutions | Value transfer from an RM to a closely matched candidate RM performed using a single measurement procedure performed by one laboratory. pH measurement with glass electrode |
| Reference Materials and Certified Reference Materials | Conductivity of aqueous solutions | Value transfer from an RM to a closely matched candidate RM performed using a single measurement procedure performed by one laboratory. Conductivity meter |
| Reference Materials and Certified Reference Materials | Density of liquids | Value transfer from an RM to a closely matched candidate RM performed using a single measurement procedure performed by one laboratory. Digital density meter |
| Reference Materials and Certified Reference Materials | Total Alkalinity | Characterization based on mass or volume of ingredients used in the preparation of the RM. Titration |
| Reference Materials and Certified Reference Materials | Hardness | Value transfer from an RM to a closely matched candidate RM performed using a single measurement procedure performed by one laboratory. ICP-AES/ Calculation |
| Reference Materials and Certified Reference Materials | Chemical Oxygen Demand Standards (COD) | Value transfer from an RM to a closely matched candidate RM performed using a single measurement procedure performed by one laboratory. Spectrophotometry |
| Reference Materials, Certified Reference Materials and Volumetric Solutions | Acid Base Reagents | Characterization based on mass or volume of ingredients used in the preparation of the RM. Titration |
| Reference Materials, Certified Reference Materials and Volumetric Solutions | Boric Acid | Characterization based on mass or volume of ingredients used in the preparation of the RM. ICP-AES Balance (gravimetric preparation) |

Chemical Properties

| Type of Reference Material | Description of the Reference Material Matrix or Artifact including the Property-Properties Characterized | Method or Techniques Used by the RMP Laboratory to Determine the Assigned Value (if Appropriate) |
|---|--|---|
| Reference Materials, Certified Reference Materials and Volumetric Solutions | Silver Nitrate | Value transfer from an RM to a closely matched candidate RM performed using a single measurement procedure performed by one laboratory. Potentiometric Titration |
| Reference Materials and Certified Reference Materials | Potassium Permanganate | Characterization based on mass or volume of ingredients used in the preparation of the RM. Redox Titration |
| Reference Materials and Certified Reference Materials ² | Concentration of halides in organic solutions | Characterization based on mass or volume of ingredients used in the preparation of the RM. ICP-AES Balance (gravimetric preparation) |
| Reference Materials and Certified Reference Materials ² | Concentration of single or multi-components of Metallo-Organic Compounds and Wear Metals in oil ² | Characterization based on mass or volume of ingredients used in the preparation of the RM. ICP-AES Balance (gravimetric preparation) |
| Reference Materials and Certified Reference Materials ² | Concentration of Metallo-Organic Compounds: Sulfur in Mineral Oil, Diesel, Residual oil, Isooctane, Biodiesel, Xylene, Ethanol, Crude Oil and Premisolv ² | Value transfer from an RM to a closely matched candidate RM performed using a single measurement procedure performed by one laboratory. Fluorescence Spectroscopy (UV) |
| Reference Materials and Certified Reference Materials ² | Particles in organic solutions | Value transfer from an RM to a closely matched candidate RM performed using a single measurement procedure performed by one laboratory. Particle Counter |
| Reference Materials and Certified Reference Materials ² | Viscosity Standards ² | Value transfer from an RM to a closely matched candidate RM performed using a single measurement procedure performed by one laboratory. Master Viscometer |
| Reference Materials and Certified Reference Materials ² | Total Acid Number Standards (TAN) ² | Characterization based on mass or volume of ingredients used in the preparation of the RM. Potentiometric Titration |

Chemical Properties

| Type of Reference Material | Description of the Reference Material Matrix or Artifact including the Property-Properties Characterized | Method or Techniques Used by the RMP Laboratory to Determine the Assigned Value (if Appropriate) |
|--|--|---|
| Reference Materials and Certified Reference Materials ² | Total Base Number Standards (TBN) ² | Characterization based on mass or volume of ingredients used in the preparation of the RM. Potentiometric Titration |
| Reference Materials and Certified Reference Materials ² | Flash Point Standards ² | Value transfer from an RM to a closely matched candidate RM performed using a single measurement procedure performed by one laboratory. Pensky-Martens Closed Cup |
| Reference Materials and Certified Reference Materials ² | Melting Point of Solids | Value transfer from an RM to closely matched candidate RM performed using a single measurement procedure performed by one laboratory. Melting Point Analyzer |
| Reference Materials and Certified Reference Materials ² | Boiling Point of Liquids | Value transfer from an RM to closely matched candidate RM performed using a single measurement procedure performed by one laboratory. Boiling Point Analyzer |
| Reference Materials and Certified Reference Materials ² | Concentration or Mass Fraction of water in organic solutions | Characterization based on mass or volume of ingredients used in the preparation of the RM Karl-Fisher Titration |
| Reference Materials and Certified Reference Materials ² | Concentration or Mass Fraction of organic substances in aqueous or organic solutions | Characterization of non-operationally defined measurand using two or more methods of demonstrable accuracy in one or more competent laboratories GC-FID GC-MS HPLC LC-MS Titration Karl-Fisher Titration Balance |
| Reference Materials and Certified Reference Materials ² | Concentration or Mass Fraction of organic substances in aqueous or organic solutions | Characterization based on mass or volume of ingredients used in the preparation of the RM Balance (gravimetric preparation) |

Chemical Properties

| Type of Reference Material | Description of the Reference Material Matrix or Artifact including the Property-Properties Characterized | Method or Techniques Used by the RMP Laboratory to Determine the Assigned Value (if Appropriate) |
|--|--|---|
| Reference Materials and Certified Reference Materials ² | Identification and purity of neat organic substances | Characterization of non-operationally defined measurand using two or more methods of demonstrable accuracy in one or more competent laboratories GC-FID GC-MS HPLC LC-MS Titration Karl-Fisher Titration Melting Point Boiling Point Balance |
| Matrix Reference Materials | EnviroMAT – Contaminated Soil | Interlaboratory Study |
| Matrix Reference Materials | EnviroMAT – Sewage Sludge | Interlaboratory Study |
| Matrix Reference Materials | EnviroMAT – Compost | Interlaboratory Study |
| Matrix Reference Material ² | EnviroMAT – Drinking Water | Interlaboratory Study |
| Matrix Reference Materials | EnviroMAT – Ground Water | Interlaboratory Study |
| Matrix Reference Materials | EnviroMAT – Wastewater | Interlaboratory Study |
| Matrix Reference Materials | EnviroMAT – Used Oil | Interlaboratory Study |
| Matrix Reference Materials | AgroMAT – Clay Soil | Interlaboratory Study |
| Matrix Reference Materials | AgroMAT – Sandy Soil | Interlaboratory Study |

Chemical Properties

| Type of Reference Material | Description of the Reference Material Matrix or Artifact including the Property-Properties Characterized | Method or Techniques Used by the RMP Laboratory to Determine the Assigned Value (if Appropriate) |
|----------------------------|--|--|
| Matrix Reference Materials | Lead in Paint | Interlaboratory Study |
| Matrix Reference Materials | Cadmium and Lead in Paint | Interlaboratory Study |
| Matrix Reference Materials | pE Check – Nutrients | Interlaboratory Study |
| Matrix Reference Materials | pE Check – Minerals | Interlaboratory Study |
| Matrix Reference Materials | pE Check – Solids | Interlaboratory Study |
| Matrix Reference Materials | pE Check – COD (Chemical Oxygen Demand) | Interlaboratory Study |

Notes:

1. Please contact the RMP organization for more information on CRM uncertainty values, Ucrm values, and other specific lot values. Some of this information may also be available on the RMP's website.
2. Sold under the brand name Conostan, which is owned by AnalytiChem. These reference materials are intended for use as quality control materials, or other purposed that do not require metrological traceability of property values (such as calibration or value transfer)



Jason Stine, Vice President