



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

ENTEGRIS, INC. ANALYTICAL SERVICES<sup>1</sup>  
10 Forge Park  
Franklin, MA 02038  
Mr. Tyler Moulton Phone: 508 839 9679

CHEMICAL

Valid To: August 31, 2019

Certificate Number: 2578.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following routine and non-routine tests and research, development and validation of test methods for industrial fuels and gases, air testing, and gas-phase contamination:

<u>Test Technology(ies)</u>	<u>Test Method</u>	<u>Analyte(s)</u>
Sampling Ambient Air and Compressed Gases in the Field (Customer Sites and Internal) <sup>2</sup>	AS000060	All analytes listed throughout the scope
Anions / Acids by Ion Chromatography	AS000061	<u>Inorganic Anions:</u> Bromide, Br <sup>-</sup> Chloride, Cl <sup>-</sup> Fluoride, F <sup>-</sup> Nitrate, NO <sub>3</sub> <sup>-</sup> Nitrite, NO <sub>2</sub> <sup>-</sup> Sulfate, SO <sub>4</sub> <sup>2-</sup> Phosphate, PO <sub>4</sub> <sup>3-</sup>  <u>Anhydrides:</u> Nitric oxide, NO Nitrogen dioxide, NO <sub>2</sub> Sulfur dioxide, SO <sub>2</sub> Sulfur trioxide, SO <sub>3</sub>  <u>Organic Acid Anions:</u> Acetate, CH <sub>3</sub> COO <sup>-</sup> Formate, CHOO <sup>-</sup>  <u>Organic Acids:</u> Acetic acid, CH <sub>3</sub> COOH Formic acid, CHOOH

<u>Test Technology(ies)</u>	<u>Test Method</u>	<u>Analyte(s)</u>
Cations / Bases by Ion Chromatography	AS000062	<u>Cations:</u> Ammonium, NH <sub>4</sub> <sup>+</sup> Calcium, Ca <sup>2+</sup> Lithium, Li <sup>+</sup> Magnesium, Mg <sup>2+</sup> Potassium, K <sup>+</sup> Sodium, Na <sup>+</sup>  <u>Anhydrides:</u> Ammonia, NH <sub>3</sub>
Organic Compounds by GC / MS	AS000063	Organic constituents in the approximate range of C <sub>2</sub> -C <sub>30</sub>
Low-Molecular Weight (Volatile) Silicon-Containing Organic Compounds by GC / MS	AS000065	TMS HMDSO D3 Other Si-compounds with BP less than 40°C
Field Sampling and Measurement of Moisture (Water Vapor) in Inert, Corrosive, and Reactive Gases by Cavity Ring-Down Spectrometry and Electrochemical Analysis <sup>2</sup>	AS000066	Water Vapor, H <sub>2</sub> O
Particle Count and Size by Light Scattering <sup>2</sup>	AS000067	Particles in the range of (0.1 to 10) μm
Sulfur Containing Gases by Fluorescence <sup>2</sup>	AS000069	SO <sub>2</sub> , H <sub>2</sub> S, DMS, CH <sub>3</sub> SH, DMDS, total sulfur
Organic Compounds by GC / FID or PID	AS000080	Organic constituents in the approximate range of C <sub>2</sub> -C <sub>30</sub>
Ammonia by Cavity Ring Down	AS000122	Ammonia, NH <sub>3</sub>



<sup>1</sup>This accreditation covers testing performed at the main laboratory as well as the satellite laboratory listed below:

ENTEGRIS, INC. ANALYTICAL SERVICES  
 Taiwan Science Park Branch  
 No. 647-2, Sec. 3, Minfu Road, Yangmei City, Taoyuan County 32663, Taiwan (R.O.C.)  
 Local coordinator: Jenny Wang +886 939 646 723

CHEMICAL

<u>Test Technology(ies)</u>	<u>Test Method</u>	<u>Analyte(s)</u>
Sampling Ambient Air and Compressed Gases in the Field (Customer Sites and Internal) <sup>2</sup>	AS000060	All analytes listed throughout the scope
Anions/Acids by Ion Chromatography	AS000061	<u>Inorganic Anions:</u> Bromide, Br <sup>-</sup> Chloride, Cl <sup>-</sup> Fluoride, F <sup>-</sup> Nitrate, NO <sub>3</sub> <sup>-</sup> Nitrite, NO <sub>2</sub> <sup>-</sup> Phosphate, PO <sub>4</sub> <sup>3-</sup> Sulfate, SO <sub>4</sub> <sup>2-</sup>  <u>Anhydrides:</u> Nitric oxide, NO Nitrogen dioxide, NO <sub>2</sub> Sulfur dioxide, SO <sub>2</sub> Sulfur trioxide, SO <sub>3</sub>  <u>Organic Acid Anions:</u> Acetate, CH <sub>3</sub> COO <sup>-</sup> Formate, CHOO <sup>-</sup>  <u>Organic Acids:</u> Acetic acid, CH <sub>3</sub> COOH Formic acid, CHOOH



<u>Test Technology(ies)</u>	<u>Test Method</u>	<u>Analyte(s)</u>
Cations / Bases by Ion Chromatography	AS000062	<u>Cations:</u> Ammonium, NH <sub>4</sub> <sup>+</sup> Calcium, Ca <sup>2+</sup> Lithium, Li <sup>+</sup> Magnesium, Mg <sup>2+</sup> Potassium, K <sup>+</sup> Sodium, Na <sup>+</sup>  <u>Anhydrides:</u> Ammonia, NH <sub>3</sub>
Organic Compounds by GC / MS	AS000063	Organic constituents in the approximate range of C <sub>2</sub> -C <sub>30</sub>

<sup>2</sup> This laboratory meets A2LA R104 – *General Requirements: Accreditation of Field Testing and Field Calibration Laboratories* for these tests.





## Accredited Laboratory

A2LA has accredited

### ENTEGRIS, INC. ANALYTICAL SERVICES

*Franklin, MA*

for technical competence in the field of

### Chemical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets the requirements of A2LA R104 – *General Requirements: Accreditation of Field Testing and Field Calibration Laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009*).



Presented this 18<sup>th</sup> day of October 2017.

A handwritten signature in black ink, written over a horizontal line.

President and CEO  
For the Accreditation Council  
Certificate Number 2578.01  
Valid to August 31, 2019

*For the tests to which this accreditation applies, please refer to the laboratory's Chemical Scope of Accreditation.*