



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, 2017

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:

Test Technology	Test Method	Analyte
Sampling ambient air and compressed gases in the field (customer sites and internal)	AS000060*	All analytes listed in this accreditation
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

*Tyler Moulton*

<b>Test Technology</b>	<b>Test Method</b>	<b>Analyte</b>
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 gas chromatography / mass spectrometry (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 gas chromatography / mass spectrometry	AS000065	TMS HMDSO D3 Other Si-compounds with BP less than 140°C
Field sampling and measurement of moisture (water vapor) in inert, corrosive and reactive gases by cavity ring-down spectrometry and electrochemical analysis	AS000066*	Water Vapor, H <sub>2</sub> O
Particle count and size by light scattering	AS000067*	Particles in the range of (0.1 to 10) μm
Sulfur containing gases by fluorescence	AS000069*	SO <sub>2</sub> , H <sub>2</sub> S, DMS, CH <sub>3</sub> SH, DMDS, total sulfur
Organic compounds by gas chromatography / FID or PID	AS000080	Organic constituents in the approximate range of C <sub>2</sub> -C <sub>30</sub>

\* This laboratory meets A2LA R104 – General Requirements: Accreditation of Field Testing and Field Calibration Laboratories for these tests.

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

Test Technology	Test Method	Analyte
Sampling ambient air and compressed gases in the field (customer sites and internal)	AS000060*	All analytes listed in this accreditation
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
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 gas chromatography / mass spectrometry (GC / MS)	AS000063	Organic constituents in the approximate range of C <sub>2</sub> -C <sub>30</sub>





## Accredited Laboratory

A2LA has accredited

**ENTEGRIS, INC.**

*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 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 12<sup>th</sup> day of January 2016.

A handwritten signature in blue ink, appearing to read "A. C. Bunt".

Senior Director of Quality and Communications  
For the Accreditation Council  
Certificate Number 2578.01  
Valid to August 31, 2017

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