



CERTIFICATE OF ACCREDITATION

ANSI National Accreditation Board

11617 Coldwater Road, Fort Wayne, IN 46845 USA

This is to certify that

ioKinetic, LLC

95 Stiles Road

Salem, NH 03079

has been assessed by ANAB and meets the requirements of international standard

ISO/IEC 17025:2017

while demonstrating technical competence in the field of

TESTING

Refer to the accompanying Scope of Accreditation for information regarding the types of activities to which this accreditation applies

AT-1922

Certificate Number

ANAB Approval

Certificate Valid Through: 02/18/2021
Version No. 007 Issued: 02/07/2019



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. 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 April 2017).



ANSI National Accreditation Board

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ioKinetic, LLC

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Salem, NH 03079

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TESTING

Valid to: **February 18, 2021**

Certificate Number: **AT-1922**

Mechanical – Combustible Dust Testing

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Explosion Severity (K_{St} , $(dP/dt)_{max}$, P_{max} , c_w)	ASTM E1226 Standard Test Method for Explosibility of Dust Clouds	Combustible Dust	20-L Sphere Apparatus manufactured by Kuhner AG of Switzerland
Minimum Ignition Energy (MIE)	ASTM E2019 Standard Test Method for Minimum Ignition Energy of a Dust Cloud in Air		MIKE3 Apparatus manufactured by Kuhner AG of Switzerland
Minimum Auto-Ignition Temperature (MAIT)	ASTM E1491 Standard Test Method for Minimum Autoignition Temperature of Dust Clouds		BAM Oven manufactured by Swissi AG of Switzerland
Minimum Explosible Concentration (MEC)	ASTM E1515 Standard Test Method for Minimum Explosible Concentration of Combustible Dusts		20-L Sphere Apparatus manufactured by Kuhner AG of Switzerland
Hot-Surface Ignition Temperature (HSIT) of dust layers	ASTM E2021 Standard Test Method for Hot-Surface Ignition Temperature of Dust Layers		Uniformly heated surface
Burn Rate of dust layers	UN Test 4.1		Sample preparation trough and torch
Particle Size Analysis	Instrument Operating Instructions		Cilas 990D Particle Size Analyzer
Moisture Content	Instrument Operating Instructions		Mettler Toledo HR83



Chemical – Chemical Reactivity Testing

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Onset temperature Heat of reaction Temperature / pressure rise rate Amount of gas generation	ASTM E1981 Standard Guide for Assessing Thermal Stability of Materials by Methods of Accelerating Rate Calorimetry	Reactive Chemicals	ARC® 254 manufactured by Netzsch™ Group of Selb, Germany (Low thermal inertia)
Onset temperature Heat of reaction Temperature / pressure rise rate Amount of gas generation	ASTM E1981 Standard Guide for Assessing Thermal Stability of Materials by Methods of Accelerating Rate Calorimetry		Automatic Pressure Tracking Adiabatic Calorimeter (APTAC™) currently manufactured by Netzsch Group of Selb, Germany (High thermal inertia)
Onset temperature Heat of reaction Melting / boiling point Heat flow rate	ASTM E537 Standard Test Method for the Thermal Stability of Chemicals by Differential Scanning Calorimetry		DSC 200 F3 Maia – Differential Scanning Calorimeter manufactured by Netzsch Group of Selb, Germany
Onset temperature Mass loss Rate of mass loss	ASTM E2550 Standard Test Method for Thermal Stability by Thermogravimetry		TG 209 F3 Tarsus – Thermogravimetric analyzer manufactured by Netzsch Group of Selb, Germany

Physical – Chemical Properties Measurements

Items, Materials or Products Tested	Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique
Chemicals	Density	ASTM D4052 Standard Test Method for Density, Relative Density, and API Gravity of Liquids by Digital Density Meter
	Speed of Sound	Instructional Manual, Dated 01/12/2015 (Document # D17IB001EN-M)
	Heat Capacity	ASTM E1269 Standard Test Method for Determining Specific Heat Capacity by Differential Scanning Calorimetry

Note:

1. This scope is formatted as part of a single document including Certificate of Accreditation No. AT-1922


 Vice President