Avocado Research Chemicals (Thermo Fisher Scientific)
Shore Road, Port of
Heysham Industrial Park
Heysham,
LA3 2XY, United Kingdom

CERTIFICATE OF ANALYSIS

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by LRQA. Certificate Number. 10551915

Catalogue Number	033258
Lot Number	10263480
Description	Hydrofluoric acid, ACS, 48-51%
CAS Number	7664-39-3
Quality Test/Release Date	01/Oct/2026
Suggested retest date	01/Oct/2029
Country of Origin	Belgium
Declaration of Origin	Synthetic
BSE/TSE	Not directly derived from or manufactured with any animal byproducts in any way (including but not limited to fermentation or nutrient broth, catalysts, enzymes).

Result Name	Units	Specifications	Test Value
Assay (unspecified)	%	48.0-51.0% HF	49.90
Appearance (Color)		Clear	Clear
Form		Liquid	Liquid
Residue on ignition	ppm	≤5ppm	<5
Impurity content	ppm	Arsenic (As): ≤0.05ppm	<0.05
Impurity content	ppm	Chloride (Cl): ≤ 5ppm	<1
Impurity content	ppm	Copper (Cu): ≤ 0.1ppm	<0.02
Impurity content	%	Fluosilicic acid (H2SiF6): ≤0.01%	<0.0005
Impurity content	ppm	Iron (Fe): ≤1ppm	<0.2
Impurity content	ppm	Phosphate (PO4): ≤1ppm	<0.5
Impurity content	ppm	Sulfate and sulfite (as SO4): ≤5ppm	<2
Heavy Metals (as Pb)	ppm	≤0.5ppm	<0.05

Paul Coleman
Site Quality Manager

Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third-party data or information associated with the product. Products are for research and development use only. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of the catalogue number listed above.