

## CERTIFICATE OF ANALYSIS

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by Intertek Global Certificate Number. CERT-0120633

Catalogue Number	LS118
Lot Number	260872
Description	WATER WITH 0.1% (V/V) FORMIC ACID, OPTIMA-LCMS GRADE
CAS Number	64-18-6,7732-18-5
Quality Test/Release Date	09/Apr/2026
Suggested retest date	08/Apr/2031
Country of Origin	United States
Declaration of Origin	Organic - non animal

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
ASSAY (V/V) FORMIC ACID	%	Inclusive Between 0.095 - 0.105	0.101
COLOR	APHA	<= 10	<5
EVAPORATION RESIDUE	ppm	<= 1	<1
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IONIC IMPURITY - ALUMINUM (Al)	ppb	<= 20	<1
IONIC IMPURITY - CALCIUM (Ca)	ppb	<= 50	3
IONIC IMPURITY - COPPER (Cu)	ppb	<= 10	<1
IONIC IMPURITY - IRON (Fe)	ppb	<= 10	<1
IONIC IMPURITY - LEAD (Pb)	ppb	<= 10	<1
IONIC IMPURITY - MAGNESIUM (Mg)	ppb	<= 10	1
IONIC IMPURITY - MANGANESE (Mn)	ppb	<= 10	<1
IONIC IMPURITY - NICKEL (Ni)	ppb	<= 10	<1
IONIC IMPURITY - POTASSIUM (K)	ppb	<= 20	3
IONIC IMPURITY - SILVER (Ag)	ppb	<= 10	<1
IONIC IMPURITY - SODIUM (Na)	ppb	<= 50	10
IONIC IMPURITY - ZINC (Zn)	ppb	<= 20	3
LC GRADIENT TEST WITH PDA (200-400 NM)	mAU	<= 2	<2
LCMS SUITABILITY - POS. MODE (AS PROPAZINE)	ppb	<= 50	<50
OPTICAL ABS AT 210 NM	ABS. UNITS	<= 1.25	1.13
OPTICAL ABS AT 220 NM	ABS. UNITS	<= 0.85	0.75
OPTICAL ABS AT 230 NM	ABS. UNITS	<= 0.55	0.32
OPTICAL ABS AT 254 NM	ABS. UNITS	<= 0.01	<0.01
PROTEASE	DETECTED/NOT DETECT.	= NOT DETECTED	NOT DETECTED



Harout Sahagian  
QC 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 use or further manufacturing. 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.