

**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	J13410
Lot Number	254154
Description	CHOLINE CHLORIDE
CAS Number	67-48-1
Quality Test/Release Date	03/Nov/2025
Suggested retest date	12/Sep/2027
Country of Origin	United States

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	White crystalline powder
1,4 DIOXANE	PASS/FAIL	= PASS TEST	PASS TEST
ASSAY (DRY BASIS)	%	>= 98.0	99.4
HEAVY METALS	ppm	<= 10	<10
IDENTIFICATION, I.R.	Matches Reference	= MATCHES REFERENCE	MATCHES REFERENCE
IGNITION RESIDUE	%	<= 0.05	<0.05
MOISTURE	%	<= 0.5	0.3



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.