

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	BP153
Lot Number	257651
Description	TRIS (HYDROXYMETHYL) AMINOMETHANE, HYDROCHLORIDE
CAS Number	1185-53-1
Quality Test/Release Date	23/Mar/2026
Suggested retest date	31/Dec/2027
Country of Origin	China
Declaration of Origin	Organic - non animal
BSE/TSE	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	White Crystals or crystalline powder
ABSORBANCE AT 280NM	ABSORBANCE UNITS	<= 0.05	0.01
ARSENIC (As)	ppm	<= 10	<10
ASSAY	%	>= 99	100.7
BARIUM (Ba)	ppm	<= 1	<1
CALCIUM	%	<= 0.001	<0.001
COPPER (Cu)	ppm	<= 1	<1
DNASE	DETECTED/NOT DETECT.	IN NOT DETECTED	NOT DETECTED
IDENTIFICATION	DETECTED/NOT DETECT.	IN PASS TEST	PASS TEST
IRON (Fe)	ppm	<= 2	<2
LEAD (Pb)	ppm	<= 5	<5
MAGNESIUM	ppm	<= 10	<10
MANGANESE (Mn)	ppm	<= 1	<1
MELTING POINT	DEGREES CELSIUS	Inclusive Between 150 - 154	152
PROTEASE	PASS/FAIL	IN NOT DETECTED	NOT DETECTED
RNASE	DETECTED/NOT DETECT.	IN 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.