

## 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	A461
Lot Number	255141
Description	2-PROPANOL, OPTIMA LC/MS GRADE
CAS Number	67-63-0
Quality Test/Release Date	08/Jun/2026
Suggested retest date	07/Jun/2031
Country of Origin	France
Declaration of Origin	Organic - synthetic
BSE/TSE	This product is produced entirely from petrochemical sources and does not contain or come into contact with any material of animal or vegetable origin.

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
ASSAY	%	>= 99.90	99.99
COLOR	A.P.H.A.	<= 5	5
HPLC - UV GRADIENT SUITABILITY PDA (254 nm)	mAU	<= 5	2
IDENTIFICATION	CONFORMS	IN CONFORMS TO STANDARD;CONFORMS	CONFORMS TO STANDARD
IONIC IMPURITY - ALUMINUM (Al)	ppb	<= 10	<10
IONIC IMPURITY - CALCIUM (Ca)	ppb	<= 10	<10
IONIC IMPURITY - COPPER (Cu)	ppb	<= 5	<5
IONIC IMPURITY - IRON (Fe)	ppb	<= 5	<5
IONIC IMPURITY - LEAD (Pb)	ppb	<= 5	<5
IONIC IMPURITY - MAGNESIUM (Mg)	ppb	<= 5	<5
IONIC IMPURITY - MANGANESE (Mn)	ppb	<= 5	<5
IONIC IMPURITY - NICKEL (Ni)	ppb	<= 5	<5
IONIC IMPURITY - POTASSIUM (K)	ppb	<= 10	<5
IONIC IMPURITY - SILVER (Ag)	ppb	<= 5	<5
IONIC IMPURITY - SODIUM (Na)	ppb	<= 50	<50
IONIC IMPURITY - ZINC (Zn)	ppb	<= 10	<10
LCMS SUIT IN NEG MODE (AS p-Nitrophenol)	ppb	<= 200	<200
LCMS SUITABILITY - POS. MODE (AS PROPAZINE)	ppb	<= 200	<200
OPTICAL ABS AT 210 NM	ABSORBANCE UNITS	<= 1.0	0.24
OPTICAL ABS AT 220 NM	ABSORBANCE UNITS	<= 0.20	0.10
OPTICAL ABS AT 230 NM	ABSORBANCE UNITS	<= 0.10	0.05
OPTICAL ABS AT 254 NM	ABSORBANCE UNITS	<= 0.01	<0.01
RESIDUE	ppm	<= 1	<1.0
TITRATABLE ACID OR BASE	MEQ ACID OR BASE	<= 0.0001	0.0001

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.

WATER (H<sub>2</sub>O)

%

<= 0.05

0.03

---



Ash Frey  
Supervisor, Quality Control

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.