448 West Fork Dr Arlington, TX 76012 http://www.riccachemical.com 1-888-GO-RICCA

${\color{red} \textbf{Certificate of Analysis}}^{\textbf{customerservice@riccachemical.com}}$

Sodium Hydroxide, 50% (w/w) (760 g/L), Purified Grade Nitrogen Free - Suitable for Kjeldahl Nitrogen Analysis

Lot Number: 1311D77 Product Number: 7290

Expiration Date: JUL 2025

Manufacture Date: NOV 08, 2023

Name	CAS#	Grade
Water	7732-18-5	Purified
Sodium Hydroxide	1310-73-2	Purified

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Hydroxide Alkalinity as NaOH	min 49.5 % (w/w)	49.8 % (w/w)	
Iron (Fe)	max 0.0008 %	0.0003 %	3126
Sodium Carbonate (Na ₂ CO ₃)	max 0.4 %	0 %	
Sodium Chloride (NaCl)	max 2.20 %	< 0.01 %	
Total Alkalinity as Sodium Oxide (Na ₂ O)	min 38.30 % (w/w)	51.50 % (w/w)	

Specification	Reference
C-1' 11 11-+' F00/ 11-+	TADDI (T 419 am 07)

Sodium hydroxide solution, 50% by weight

TAPPI (T 418 cm-97)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
7290-32	1 L natural poly	36 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Heidi J Green (11/08/2023)

Operations Manager

This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

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