AMMONIA-NITROGEN KIT

Code 3304-02 | Salicylate Method, Octa-Slide 2, 0-2 ppm

QUANTITY	CONTENTS	CODE
60 mL	*Salicylate Ammonia #1	*3978LWT-H
30 mL	*Salicylate Ammonia #2	*3979WT-G
30 mL	Salicylate Ammonia #3	3982WT-G
2	Test Tubes, plastic, w/caps	0106
1	Ammonia-Nitrogen Octa-Slide 2 Bar, 0-2 ppm, Fresh Water	3441-01-FW
1	Ammonia-Nitrogen Octa-Slide 2 Bar, 0-2 ppm, Salt Water	3441-01-SW
1	Octa-Slide 2 Viewer	1101

To order individual reagents or test kit components, use the specified code number.

*Reagent is a potential health hazard. **READ SDS:** lamotte.com

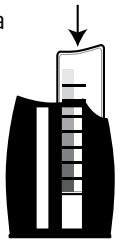
Emergency information:
Chem-Tel USA 1-800-255-3924
Int'l, call collect, 813-248-0585

Warning! This set contains chemicals that may be harmful if misused. Read cautions on individual containers carefully. Not to be used by children except under adult supervision.

USE OF THE OCTA-SLIDE 2 VIEWER

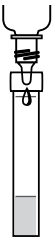
PROCEDURE

1. InsertAmmonia Nitrogen Octa-Slide 2 Bar (3441-01-FW or 3441-01-SW) into the Octa-Slide 2 Viewer (1101).

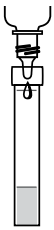


2. Fill a test tube (0106) to the 5 mL line with sample water.

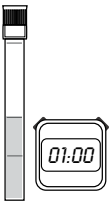
3. Add 10 drops of *Salicylate Ammonia #1 (3978LWT). Cap and mix.



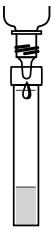
4. Add 7 drops of *Salicylate Ammonia #2 (3979WT).



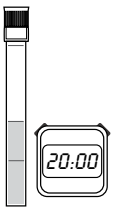
5. Cap and Mix. Wait 1 minute.



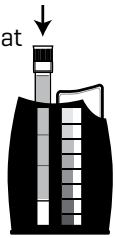
6. Add 7 drops of Salicylate Ammonia #3 (3982WT).



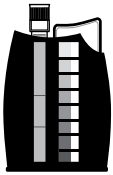
7. Cap and mix. Wait 20 minutes.



8. Hold Viewer so that non-direct light enters through the back. Insert test tube into Octa-Slide 2 Viewer (1101).



9. Match sample color to a color standard. Record as ppm Ammonia Nitrogen (NH_3-N).



CONVERSIONS

Ammonia in water occurs in two forms: toxic unionized ammonia (NH_3), and the relatively non-toxic ionized form, ammonium ion (NH_4^+). This test method measures both forms as ammonia-nitrogen (NH_3^+-N) to give the total ammonia-nitrogen concentration in water. The actual proportion of each compound depends on temperature, salinity, and pH. A greater concentration of unionized ammonia is present when the pH value and salinity increase. Consult the table to find the percentage that corresponds to the temperature, pH and salinity of the sample.

1. To express the test result as ppm Unionized Ammonia Nitrogen (NH_3-N), multiply the total ammonia-nitrogen test result by the percentage from the table.
2. To express the test result as ppm Ammonia Nitrogen (NH_3^+-N), subtract the unionized ammonia-nitrogen determined in Step 2 from the total ammonia-nitrogen.

	5°C		10°C		15°C		20°C		25°C	
pH	0 ‰	35 ‰	0 ‰	35 ‰	0 ‰	35 ‰	0 ‰	35 ‰	0 ‰	35 ‰
7.0	0.12	0.10	0.18	0.15	0.26	0.22	0.39	0.32	0.58	0.47
7.1	0.15	0.12	0.22	0.18	0.33	0.27	0.49	0.40	0.72	0.59
7.2	0.19	0.16	0.28	0.23	0.42	0.34	0.62	0.51	0.91	0.75
7.3	0.24	0.20	0.36	0.29	0.53	0.43	0.78	0.64	1.14	0.94
7.4	0.30	0.25	0.45	0.37	0.66	0.54	0.97	0.80	1.43	1.18
7.5	0.38	0.31	0.56	0.46	0.83	0.68	1.22	1.00	1.80	1.48
7.6	0.48	0.39	0.71	0.58	1.04	0.85	1.54	1.26	2.26	1.85
7.7	0.60	0.49	0.89	0.73	1.31	10.7	1.93	1.58	2.82	2.32
7.8	0.76	0.62	1.12	0.92	1.64	1.35	2.41	1.98	3.53	2.90
7.9	0.95	0.78	1.40	1.15	2.06	1.69	3.02	2.48	4.40	3.63
8.0	1.20	0.98	1.76	1.44	2.58	2.12	3.77	3.10	5.48	4.52
8.1	1.50	1.23	2.21	1.81	3.23	2.65	4.70	3.88	6.80	5.63
8.2	1.88	1.54	2.76	2.27	4.03	3.32	5.85	4.83	8.41	6.98
8.3	2.36	1.94	3.45	2.84	5.02	4.14	7.25	6.01	10.37	8.64
8.4	2.95	2.43	4.31	3.55	6.24	5.16	8.96	7.45	12.71	10.64
8.5	3.69	3.04	5.36	4.43	7.73	6.41	11.02	9.20	15.49	13.03

[1] *Consult online ammonia conversion calculators for conversion factors for additional pH, salinity, and temperature conditions.*

FOR EXAMPLE:

A fresh water sample at 20°C has a pH of 8.5 and the test result is 1.0 ppm as total Ammonia-Nitrogen.

1. The percentage from the table is 11.02% (or 0.1102).
2. 1 ppm total Ammonia-Nitrogen x 0.1102 = 0.1102 ppm Unionized Ammonia-Nitrogen.

Total Ammonia-Nitrogen		1.0000 ppm
Unionized Ammonia-Nitrogen	-	0.1102 ppm
Ionized Ammonia-Nitrogen	=	0.8898 ppm

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