

Determination of Sodium chlorite:
50 PPM to 1500 PPM Concentration

Alcide Corporation

September 13, 1995

ALCIDE CORPORATION

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| QUALITY ASSURANCE: LABORATORY TEST METHOD | NUMBER: 1124 | | |
| TITLE: DETERMINATION OF SODIUM CHLORITE: 50 PPM TO 1500 PPM CONCENTRATION | REV: 01 PAGE: 2 of 2 | | |
| PREPARED BY: <i>Celia W. [unclear]</i> | APPROVED BY: <i>Melissa M. [unclear]</i> | EFF. DATE: 09/13/95 | SUPERSEDES: 05/17/95 |

5.30 Add 1 mL of 6N HCl. Stir for 30 seconds.

5.40 Continue stirring and titrate liberated iodine with standardized 0.025N Na₂S₂O₃ (Sodium thiosulfate). When most of the brownish iodine color has faded, add 2 mL starch indicator solution and titrate to a clear endpoint. (Allow adequate mixing time between additions of titrant near endpoint.) Record volume titrated (V).

6.00 Calculation

$$\frac{(V \text{ in mL Na}_2\text{S}_2\text{O}_3) \times 0.025 \times 90.45 \times 1000}{\text{sample size (g)} \times 4} = \text{ppm NaClO}_2$$

where: 0.025 is the normality of the titrant
90.45 is the molecular weight of NaClO₂
1000 is conversion factor from mg/g to ppm
4 is milliequivalents Na₂S₂O₃ per NaClO₂

7.00 Suggested sample size

For 50-250 ppm, use 100 g sample
For 250-500 ppm, use 50 g sample
For 500-1100 ppm, use 20 g sample
For 1100-1500 ppm, use 15 g sample

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