

TOTAL SO₂ by RIPPER METHOD

Equipment

- 25mL Serological Pipet
- 5mL Dispenser (for H₂SO₄) [Repipet or equivalent]
- Squeeze bottle (for starch indicator)
- 10mL Dispenser (for NaOH) [Tilt-a-Pet or equivalent]
- 250mL Erlenmeyer Flask(s)
- 10mL Buret Assembly
- Safety bulb

Reagents

- 1% Starch Indicator
- 1+3 Sulfuric Acid CAUTION: CORROSIVE
- 1N Sodium Hydroxide CAUTION: CORROSIVE
- 0.02N Iodine *

Procedure

- Pipet 25mL of sample into the Erlenmeyer flask. Add 1-2mL starch indicator and approx. 10mL 1N sodium hydroxide. Let stand approximately 10 minutes.
- Add 5mL sulfuric acid and immediately and quickly titrate with 0.02N Iodine to a blue color that lasts for approx. 30 seconds.
- (If doing more than one sample, add sulfuric acid to a single flask just before titrating.)

Calculations

Total SO₂ (ppm) = N I₂ x mLs I₂ x 1280

Note: If N of I₂ is 0.02, then total SO₂ (ppm) = mL I₂ x 25.6

Notes

** Standardize Iodine frequently.

See additional notes in procedure for Free SO₂.

Disposal

Add approximately 5mL of Kolor-Safe Acid Neutralizer and discard with water in sink.