

Inspiring innovation.

# TOTAL SO<sub>2</sub> by RIPPER METHOD

## Equipment

- 25mL Serological Pipet
- 5mL Dispenser (for H<sub>2</sub>SO<sub>4</sub>) [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 lodine \*

### 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 lodine 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 SO<sub>2</sub> (ppm) = N  $I_2 \times mLs I_2 \times 1280$ 

Note: If N of  $I_2$  is 0.02, then total SO<sub>2</sub> (ppm) = mL  $I_2 \times 25.6$ 

### **Notes**

\*\* Standardize lodine frequently. See additional notes in procedure for Free SO<sub>2</sub>.

## **Disposal**

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

The indications supplied are based on our current knowledge and experience, but do not relieve the user from adopting the necessary safety precautions or from the responsibility of using the product(s) properly.

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