#### Instr. #5312

# DROP TEST HYDROGEN PEROXIDE (1 drop = 0.5 or 1%)

#### COMPONENTS:

1 x 4026 Dipper Spoon, 2 g, plastic, white 1 x 4029 Pipet, Calibrated (0.5 & 1.0 mL), plastic

1 x 5312 Instruction 1 x 6045 Syringe, 3 mL

2 x 9198 Sample Tube, Graduated (25 mL) w/ cap, plastic

1 x R-0601-C-DB Molybdate Reagent, 2 oz, DB 1 x R-0729-C-DB Sulfuric Acid 50%\*, 2 oz, DB 1 x R-0765-II Potassium Iodide Crystals, 50 g 1 x R-0885-C Thiosulfate Reagent, 2 oz, DB

# TO ORDER REPLACEMENT PARTS AND REAGENTS CALL TOLL-FREE 800-TEST KIT (800-837-8548).

#### PROCEDURE:

# CAREFULLY READ AND FOLLOW PRECAUTIONS ON REAGENT LABELS. KEEP REAGENTS AWAY FROM CHILDREN.

NOTE: When dispensing reagents from dropper bottles, always hold bottle in a vertical position.

## **Hydrogen Peroxide Test**

### For 1 drop = 0.5% Hydrogen Peroxide

- Using 3 mL syringe (#6045), add 2 mL water to be tested to a 25 mL sample tube (#9198).
   Dilute to 25 mL mark with distilled, deionized, or hydrogen peroxide-free water. Swirl to mix.
- Using 2 g dipper spoon (#4026), add 1 dipper R-0765 Potassium Iodide Crystals to second 25 mL sample tube. Dilute to 10 mL mark with distilled, deionized, or hydrogen peroxide-free water. Swirl until dissolved.
- 3. Add 10 drops R-0729 Sulfuric Acid 50% to second 25 mL sample tube. Swirl to mix.

CAUTION: R-0729 Sulfuric Acid 50% is a strong acid. Handle carefully.

Using 1.0 mL pipet (#4029), transfer 1.0 mL from first 25 mL sample tube to second 25 mL sample tube.

- Add 10 drops R-0601 Molybdate Reagent. Swirl to mix. Sample will turn yellow orange if hydrogen peroxide is present.
- Add R-0885 Thiosulfate Reagent dropwise, swirling and counting after each drop, until color changes from yellow orange to colorless.
- 7. Multiply drops of R-0885 Thiosulfate Reagent by 0.5. Record as percent (%) hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>).

### For 1 drop = 1% Hydrogen Peroxide

- 1. Using 3 mL syringe (#6045), add 1 mL water to be tested to a 25 mL sample tube (#9198). Dilute to 25 mL mark with distilled, deionized, or hydrogen peroxide-free water. Swirl to mix.
- Using 2 g dipper spoon (#4026), add 1 dipper R-0765 Potassium lodide Crystals to second 25 mL sample tube. Dilute to 10 mL mark with distilled, deionized, or hydrogen peroxide-free water. Swirl until dissolved.
- 3. Add 10 drops R-0729 Sulfuric Acid 50% to second 25 mL sample tube. Swirl to mix.

CAUTION: R-0729 Sulfuric Acid 50% is a strong acid. Handle carefully.

- Using 1.0 mL pipet (#4029), transfer 1.0 mL from first 25 mL sample tube to second 25 mL sample tube.
- Add 10 drops R-0601 Molybdate Reagent. Swirl to mix. Sample will turn yellow orange if hydrogen peroxide is present.
- Add R-0885 Thiosulfate Reagent dropwise, swirling and counting after each drop, until color changes from yellow orange to colorless.
- 7. Record drops of R-0885 Thiosulfate Reagent as percent (%) hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>).

\*WARNING: Sulfuric Acid 50% (R-0729) contains 62% w/w sulfuric acid, a corrosive acid.

