

DROP TEST
FREE & COMBINED CHLORINE (1 drop = 0.2 ppm)
MONOPERSULFATE COMPOUND (1 drop = 0.2 ppm)
(USE WITH R-0870)

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

NOTE: This procedure will selectively determine free chlorine, combined chlorine, and monopersulfate (not persulfate). To determine monopersulfate it is first necessary to determine both free and combined chlorine, if present.

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

Free & Combined Chlorine Test

1. Rinse and fill sample tube to 25 mL mark with water to be tested.
2. Add 1 heaping dipper R-0870 DPD Powder and QUICKLY swirl to mix. After mixing, PROMPTLY add 1.0 mL R-0867 Deox Reagent and QUICKLY swirl to mix. Sample will turn pink if free chlorine (FC) is present.
3. Add R-0871 FAS-DPD Titrating Reagent (chlorine) dropwise, swirling and counting after each drop, until color changes from pink to colorless. Multiply drops by 0.2. Record as parts per million (ppm) free chlorine (FC).
4. Add 10 drops R-0003 DPD Reagent #3. Swirl to mix. WAIT 1 MINUTE. Sample will turn pink if combined chlorine (CC) is present.
5. Add R-0871 FAS-DPD Titrating Reagent (chlorine) dropwise, swirling and counting after each drop, until color changes from pink to colorless. Multiply drops by 0.2. Record as parts per million (ppm) combined chlorine (CC).

Monopersulfate Compound Test

1. Rinse and fill sample tube to 25 mL mark with water to be tested.
2. Add 1 heaping dipper R-0870 DPD Powder. Swirl to mix.
3. Add 10 drops R-0003 DPD Reagent #3. Swirl to mix. WAIT 1 MINUTE.
4. Add R-0871 FAS-DPD Titrating Reagent (chlorine) dropwise, swirling and counting after each drop, until color changes from pink to colorless.
5. Multiply drops of R-0871 FAS-DPD Titrating Reagent (chlorine) by 0.2. Record as part per million (ppm) total oxidizer (TO).
6. To calculate parts per million (ppm) monopersulfate compound (MC) as chlorine (Cl₂):
 Formula: $TO - (FC + CC) = MC$.

NOTE: A negative value for MC may be obtained when MC is zero (0) or very low (0-0.4 ppm as chlorine). This is caused by variables such as sample measurement, drop variation, etc.

NOTE: Refer to manufacturer's instructions for proper monopersulfate adjustment.

**COLOR COMPARISON TEST
FREE & TOTAL CHLORINE (.5-5 ppm)
& MONOPERSULFATE COMPOUND
(USE WITH R-0001 & R-0002)**

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

NOTE: This procedure will selectively determine free chlorine, combined chlorine, and monopersulfate (not persulfate). To determine monopersulfate it is first necessary to determine both free and combined chlorine, if present.

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

Free & Total Chlorine Test

1. Rinse and fill small comparator tube to 9 mL mark with water to be tested.
2. Add 5 drops R-0001 DPD Reagent #1 and 5 drops R-0002 DPD Reagent #2. Cap and invert to mix. Remove cap. PROMPTLY add 0.5 mL R-0867 Deox Reagent. Cap and invert to mix.
3. Match color with color standard. Record as parts per million (ppm) free chlorine (FC). Remove cap. IMMEDIATELY add 5 drops R-0003 DPD Reagent #3. Cap and invert to mix. WAIT 1 MINUTE.
4. Match color with color standard. Record as parts per million (ppm) total chlorine (TC).

Monopersulfate Compound Test

1. Rinse and fill small comparator tube to 9 mL mark with water to be tested.
2. Add 5 drops R-0001 DPD Reagent #1 and 5 drops R-0002 DPD Reagent #2. Cap and invert to mix. Remove cap.
3. Add 5 drops R-0003 DPD Reagent #3. Cap and invert to mix. WAIT 1 MINUTE.
4. Match color with color standard. Record as parts per million (ppm) total oxidizer (TO).
5. To calculate parts per million (ppm) monopersulfate compound (MC) as chlorine (Cl_2):
Formula: $TO - TC = MC$.

NOTE: A negative value for MC may be obtained when MC is zero (0) or very low (0-0.4 ppm as chlorine). This is caused by variables such as sample measurement, drop variation, etc.

NOTE: Refer to manufacturer's instructions for proper monopersulfate adjustment.

