



**CHEM-TECH
INTERNATIONAL, INC.**

CHLORIDE TEST

REAGENT/EQUIPMENT: 0847-24	10 ml BURET
9198	25 ml VIAL
R-0630-C	POTASSIUM CHROMATE
R-0638-C	PHENOLPHTHALEIN
R-0627S-10-C	SULFURIC ACID N/10
R-0629-35-F	SILVER NITRATE
	INSTRUCTIONS

PROCEDURE :

1. If sample is turbid or contains visible suspended solids, filter through a medium grade filter paper.
2. Measure 25 ml of clear sample into a porcelain casserole.
3. Add 2 or 3 drops of **Phenolphthalein Indicator (R-0638)**. If the indicator turns pink, add just enough **Sulfuric Acid** to discharge the pink color.
4. Add 4 to 8 drops of **Potassium Chromate Indicator (R-630)**.
5. Titrate with **Silver Nitrate (R0629-35)** until a faint permanent reddish-brown color appears.

NOTES: (I). There is a tendency on the part of many operators to over titrate, or to continue until a fairly deep reddish color develops. The proper end-point has been reached when a first change from yellow to a slightly darker, (muddy) color is noted. As this end-point is

neared, there will be warning flashes of red when the **Silver Nitrate** enters the test sample. As long as there are chlorides present, this color will disappear when the solution is stirred.

- (II). In colored water, this end-point may be difficult to detect. In such cases, prepare two samples in exactly the same manner, and titrate one of them until its color can be definitely distinguished from that of the other.

CALCULATION:

$$\text{mL of Silver Nitrate} \times 40 = \text{Cl as Cl } 17.1 \text{ ppm} = 1 \text{ gpg}$$