

## INSTRUCTION MANUAL

No.201SA

### Kitagawa CHLORIDE ION DETECTOR TUBES

★ DON'T DISCARD THIS INSTRUCTION MANUAL UNTIL ALL THE TUBES IN THIS BOX ARE USED UP.

#### 1. PERFORMANCE:

Measuring Range	10 - 200 ppm
and Sampling Time:	Approx 1.5 minutes
Colour Change:	Brown → White
Detectable Limit:	3 ppm
Operating temperature:	5 - 80 °C (41-176°F)

#### • CAUTION

1. DETECTOR TUBE CONTAINS TOXIC REAGENTS (SILVER CHROMATE).
2. DON'T TOUCH THESE REAGENTS DIRECTLY ONCE TUBES ARE BROKEN.
3. KEEP THE TUBES OUT OF THE REACH OF CHILDREN.

#### NOTICE

1. DON'T USE THIS TUBE OUTSIDE THE STATED OPERATING TEMPERATURE RANGE.
2. STORE TUBES IN A COOL AND DARK PLACE (0-25 °C/32-77°F), AND USE BEFORE EXPIRATION DATE PRINTED ON TOP OF THE BOX.
3. PRIOR TO USE, READ CAREFULLY ITEM 7 "USER RESPONSIBILITY" .

#### 2. SAMPLING AND MEASUREMENT:

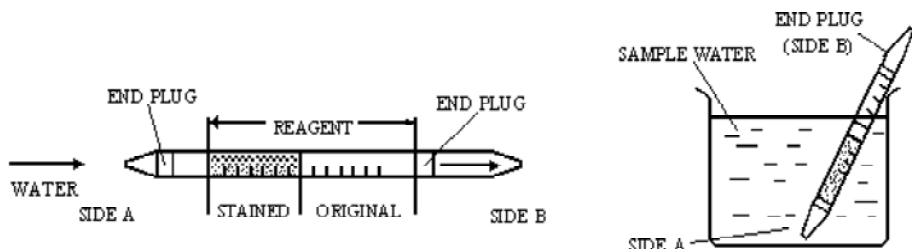


Fig.1

- ① Break both ends of detector tube.

• CAUTION SAFETY GLASSES AND GLOVES SHOULD BE WORN TO PREVENT INJURY FROM SPLINTERING GLASS.

- ② Immerse the end of the tube with side A (Arrow mark) into the prepared sample solution. Capillary action occurs immediately and the sample rises through the reagent. Chloride ion in the sample makes a white stain.
- ③ When the sample rises up to the top end plug (side B), remove the tube from the sample.
- ④ On completion of sampling, read the scale at the maximum point of the stained layer.
- ⑤ In case that concentration of sample solution is supposed to be above 200ppm (full scale) dilute the sample solution accurately with distilled water. Then measure the sample solution and multiply its reading by dilution ratio. You can get real concentration in the way of above mentioned procedure.

**SPECIAL NOTE:** When the top of the stained layer is unclear, read the scale at the centre between the longest and shortest points.

#### 3. CORRECTION FOR AMBIENT CONDITIONS:

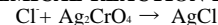
Temperature; No temperature correction is necessary.

#### 4. INTERFERENCES:

Coexistence of Bromide ion, Iodide ion, or Cyanide ion respectively with Chloride ion will give higher readings. Coexistence of Sulphide ion produces a brown stain and give higher readings. Coexistence of less than 1000ppm of Sulphate ion does not affect the reading value. PH value within 3.5-13 does not

affect the reading value, In case of below pH 3.5 or over 13 higher readings are given.

#### 5. CHEMICAL REACTION IN THE DETECTOR TUBE:



#### 6. DISPOSAL OF TUBE:

USED TUBES SHOULD BE DISCARDED CAREFULLY ACCORDING TO RELEVANT REGULATIONS, IF ANY.

#### 7. USER RESPONSIBILITY:

It is the sole responsibility of the user of to ensure that detector tubes are not used which are either beyond their expiration date or have a colour change different to that stated in the Performance specifications.

The Manufacturer and Manufacturer's Distributor shall not be otherwise liable for any incorrect measurement or any damages, whether damages result from negligence or otherwise.

IME2010

Printed in Japan