

- ★ READ CAREFULLY THIS INSTRUCTION MANUAL AND THE INSTRUCTIONS OF THE H2S-1 OR H2S-2 CALIBRATION GAS SET FOR HYDROGEN SULPHIDE PRIOR TO USE OF THIS PRODUCT.
- ★ DO NOT DISCARD THIS INSTRUCTION MANUAL UNTIL ALL THE TUBES IN THIS BOX ARE USED UP.

## CAUTION FOR SAFETY

1. SAFETY GLASSES AND GLOVES SHOULD BE WORN TO PREVENT INJURY FROM SPLINTERING GLASS.
2. DO NOT TOUCH THE REAGENTS DIRECTLY ONCE TUBES WERE BROKEN.
3. KEEP THE TUBES OUT OF THE REACH OF CHILDREN.
4. DO NOT BREATHE HYDROGEN SULPHIDE. WHEN SUBJECTIVE SYMPTOMS BY THE HYDROGEN SULPHIDE SUCH AS THE DIZZINESS WERE EXAMINED, CONSULT A DOCTOR IMMEDIATELY.

## CAUTION FOR USE

1. STORE TUBES IN A COOL AND DARK PLACE (0°C-25°C/ 32-77°F), AND USE BEFORE EXPIRATION DATE PRINTED ON THE TOP OF THE BOX.
2. A PIECE OF GENERATION TUBE IS USABLE ONE TIME ONLY.

## NOTICE

1. USE ONLY WITH MODEL H2S-1 OR H2S-2 CALIBRATION GAS SET FOR HYDROGEN SULPHIDE.
2. PRIOR TO USE, READ CAREFULLY ITEM 7. USER RESPONSIBILITY.

## 1. INFLUENCE TO BODY

When getting on an acute poisoning, headache, trouble walking, low blood pressure, etc. will be caused. In case serious condition, unconsciousness or paralysis in breathing may bring death. Its accumulation in the body is small and it would seem that chronic poisoning is an accumulation of influence of sub-acute operation. There are trouble of eyes, stomach trouble, etc. as symptoms.

## CONCENTRATION & OPERATION

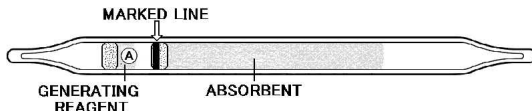
CONCENTRATION (ppm)	OPERATION
0.3	Feel bad smell clearly.
5	Unpleasant feeling.
10	Feel stimulation of eyes.
50	Stimulate trachea, and obstacle occurs.
100	If exposed for long time, heavy poisoning is brought.
250 ~ 450	Life is in a dangerous condition by exposing for 1 ~ 8 hours.
600	Fatal acute poisoning is brought by exposing 30 minutes.
800	Immediately, fatal acute poisoning is brought.

Reference book; Danger of Chemicals • Harmful Substance Handbook (Issued by Japan Industrial Safety and Health Association) The third edition; The first printing ISBN 4-8059-0391-0 C3043

## 2. USE

This generation tube is used for calibration of hydrogen sulphide detector.

## 3. SPECIFICATIONS

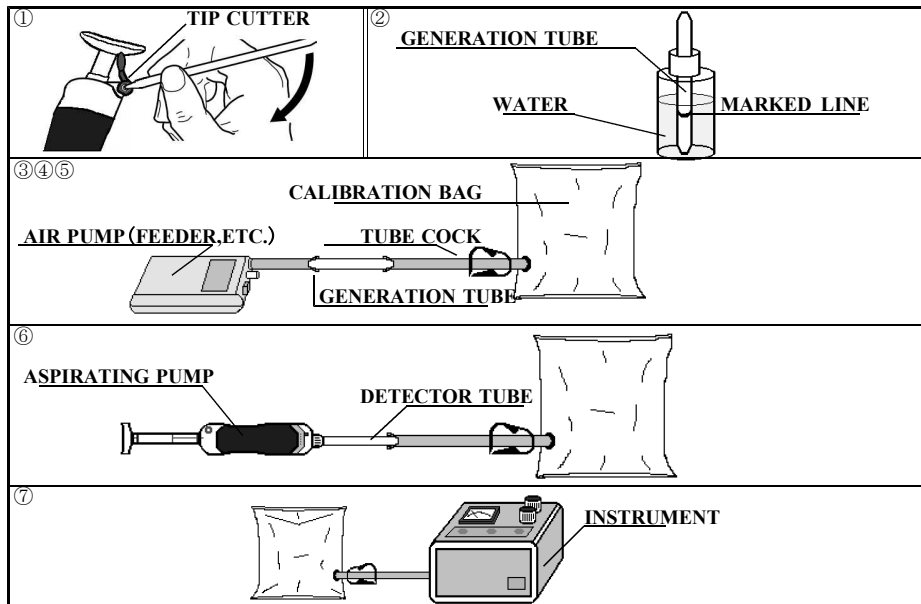


GENERATING SOLUTION	Water (H <sub>2</sub> O)
GENERATION CONCENTRATION	20-40ppm approx.※
FLOW RATE (L/min)	0.5-2.0 approx.
FEEDING AMOUNT (L)	5.0 approx.
ADOPTABLE DETECTOR TUBE	Tube No.120SB (for Hydrogen sulphide)
GENERATION PRINCIPLE	After absorption of the water, Acid and Calcium sulphide react and Hydrogen sulphide occur.

- ※ GENERATION CONCENTRATION EXPRESSES IN CASE OF 5L OF FEEDING AMOUNT OF AIR. CONCENTRATION DEPENDS ON FEEDING AMOUNT OF AIR.

#### 4. OPERATION

- ① Break both ends of the generation tube with tip cutter on gas aspirating pump or with attached ampoule cutter into the calibration gas set.
- ② Soak the tube into the water (generating solution) from the (A) side. And then absorb water in the tube to the Marked line.
- ③ Take out generation tube from generating solution, and wipe off water drop on the surface of generation tube with paper towel, etc.
- ④ Connect the tube, the air pump, (EXHAUST side of the Feeder, etc.) gas bag and Tube cock as shown in below figure. (③④⑤). (A) side of the tube is connected to the Air pump side.
- ⑤ Send the air with air pump into the gas bag until bag is inflated completely, then stop inlet of the bag with tube cock.
- ⑥ Connect detector tube No.120SB Hydrogen sulphide with the bag, and confirm concentration inside the bag.
- ⑦ After confirming concentration inside of the bag, complete calibration of instrument within 30 minutes.



#### 5. DISPOSAL OF TUBES

USED HYDROGEN SULPHIDE GENERATION TUBE THAT STILL GENERATE THE HYDROGEN SULPHIDE SHOULD BE PUT IN WASTE BOTTLE OF MODEL H2S-1 OR H2S-2 WITH HYDROGEN SULPHIDE ABSORBING TUBE 296KY. (READ CAREFULLY THIS INSTRUCTION MANUAL AND THE INSTRUCTIONS OF H2S-1 OR H2S-2 CALIBRATION GAS SET) AFTER THAT, TUBES SHOULD BE DISPOSED CAREFULLY ACCORDING TO RELEVANT REGULATIONS, IF ANY.

#### 6. HAZARDOUS AND DANGEROUS PROPERTIES OF HYDROGEN SULPHIDE:

TLV-TWA ◆ : 1 ppm (NOTICE OF INTENDED CHANGES)  
Explosion range in air : 4.0 - 45.5 %

◆ Threshold Limit Value established by the American Conference of Governmental Industrial Hygienists, 2008.

#### 7. USER RESPONSIBILITY:

It is the sole responsibility of the user of this equipment to ensure that the equipment is operated, maintained and repaired in strict accordance with these instructions and the instructions provided with each Model H2S-1 or H2S-2.

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