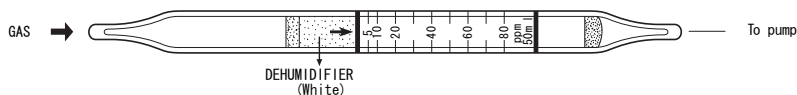# tert-BUTYL MERCAPTAN

GAS ➡

DEHUMIDIFIER
(White)

To pump

1. PERFORMANCE
1) Measuring range   : 5-80 ppm   2.5-40 ppm
   Number of pump strokes: 1/2(50mL)   1(100mL)
2) Sampling time   : 30 seconds/ 1/2 pump strokes
3) Detectable limit   : 1 ppm(100mL)
4) Shelf life   : 2 years
5) Operating temperature : 0～40℃
6) Reading   : The tube scale is calibrated based on Ethyl mercaptan at 1/2 pump strokes
                          and the tube has the same sensitivity for tert-Butyl mercaptan.
7) Colour change   : Yellow→Pink

2. RELATIVE STANDARD DEVIATION
RSD-low : 15％ RSD-mid. : 10％ RSD-high : 5％

3. CHEMICAL REACTION
By reacting with Mercuric chloride, Hydrogen chloride is produced and PH indicator is discoloured.
$(CH_3)_3CSH + HgCl_2 \rightarrow (CH_3)_3S(HgCl) + HCl$

4. CALIBRATION OF THE TUBE
STANDARD GAS CYLINDER METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	Coexistence
Hydrogen sulphide	Similar stain is produced.	Higher readings are given.
Phosphine	〃	〃
Other mercaptans	〃	〃
Arsine	〃	〃
Hydrogen selenide	〃	〃
Hydrogen cyanide	〃	〃
Nitrogen dioxide	The accuracy of readings is not affected.	Lower readings are given.
Ammonia	〃	〃
Sulphur dioxide	Whole layer is discoloured to Pale red.	The accuracy of readings is not affected if the top of maximum point of stained layer is clear.

(NOTE)
   In case of a 1 pump stroke, following formula is available for the actual concentration.
   Acutual concentration = 0.5 x Reading value