

# Information Data Sheet

**Detector Tube**      **Hg-0.01**  
**Part No. (US):**      **497663**  
**Part No.**              **D5085843**

## 1. Application

Detection of mercury (Hg) vapor in air or in technical gases.

## 2. Detector Tube Sampling Pump

KWIK DRAW (formerly MSA AUER) Gas-Tester® I/H, Gas-Tester® I / ThumbPump™-Sampler, Toximeter® II, Uniphos Kwik-Draw™-Pump or other suitable detector tubes pumps. Observe respective instructions for use.

## 3. Measuring Range

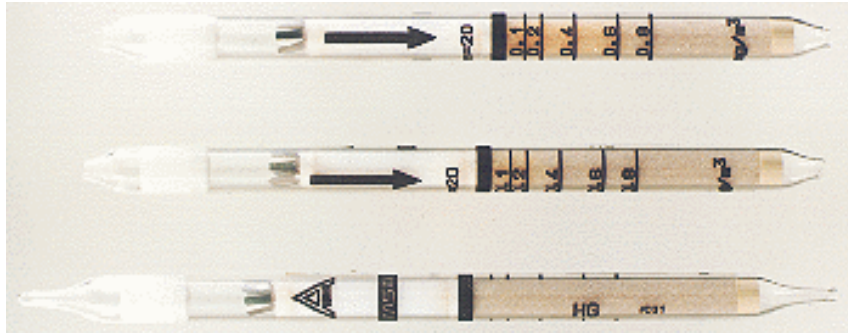
0.012 ppm ... 0.096 ppm mercury at n=20 (20 strokes); equivalent to:  
0.1 mg/m<sup>3</sup> ... 0.8 mg/m<sup>3</sup> mercury at n=20 (20 strokes).

Any number of strokes from 5 to 20 can be chosen. For calculation use n=20 scale, relate at follows:

$$\text{ppm Hg} = \frac{20 \times \text{indication on n=20 scale}}{\text{no. of strokes chosen}}$$

## 4. Chemical Reaction and Color Change

Reaction of mercury with copper iodide forming a complex copper-mercury iodide compound.  
Color change: Greyish white → Light reddish yellow.



## 5. Ambient Conditions During Sampling

Detector tubes can be used without compensation of the reading between 10°C and 40°C (50°F and 104°F) and between 10% rh (0.9 g/m<sup>3</sup> at 10°C [50°F]) and 80% rh (41 g/m<sup>3</sup> at 40°C [104°F]). Do not use detector tube if protective layer has totally changed from dry to wet by water vapour.

## 6. Interferences and Cross Sensitivities

- a) No interference from:
  - hydrogen, methane, ethane, propane, carbon monoxide, carbon dioxide.
  - higher saturated hydrocarbons (e. g. hexanes, octanes), olefinic hydrocarbons (e. g. ethylene), aromatic hydrocarbons (e. g. benzene), alcohols, ketones, ethers, esters up to 1000 ppm.
  - hydrogen sulfide, ammonia up to 100 ppm
  - sulfur dioxide, hydrogen chloride, hydrogen cyanide up to 5 ppm.
- b) Chlorine, bromine, nitrogen dioxide will shorten stain length of mercury indication even in concentrations lower than 1 ppm.

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