

# Information Data Sheet

**Detector Tube**      **PH<sub>3</sub>-0.1**  
**Part No. (US):**      **485680**  
**Part No.**              **D5085830**

## 1. Application

Detection of phosphine (PH<sub>3</sub>) in air or in technical gases.

## 2. Detector Tube Sampling Pump

UNIPHOS KWIK DRAW (formerly MSA AUER) Gas-Tester® IIH, 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

0.1 ppm ... 10 ppm phosphine at n=10 (10 strokes)

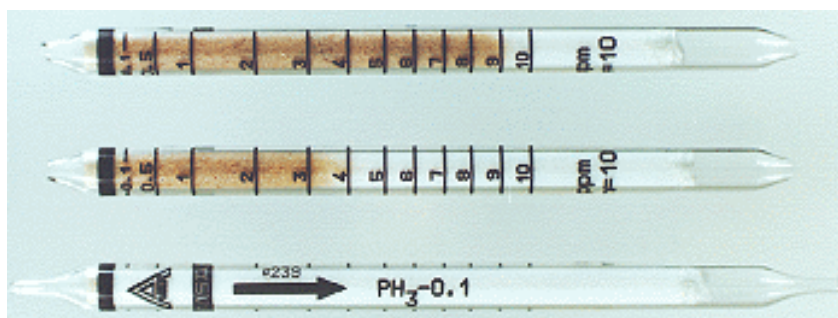
Any number of strokes from 1 to 10 can be chosen. For calculation use n=10 scale, relate as follows:

$$\text{ppm PH}_3 = \frac{10 \times \text{indication on } n=10 \text{ scale}}{\text{no. of strokes chosen}}$$

## 4. Chemical Reaction and Color Change

Reaction of phosphine with silver compound forming metallic silver.

Color change:    white      →      brown



## 5. Ambient Conditions During Sampling

Detector tubes can be used without compensation of reading between 0 °C and 40 °C (32 °F and 104 °F) and between 10 % rh (0.5 g/m<sup>3</sup> at 0 °C [32 °F]) and 90 % rh (46 g/m<sup>3</sup> at 40 °C [104 °F]).

## 6. Interferences and Cross Sensitivities

- a) No interference from:
  - hydrogen, methane, ethane, propane, butanes, carbon monoxide, carbon dioxide.
  - higher saturated hydrocarbons (e. g. hexanes, octanes), olefinic hydrocarbons (e. g. ethylene) aromatic hydrocarbons (e. g. benzene) up to 1 vol.% (n=10).
  - sulfur dioxide, carbon disulfide up to 1000 ppm (n=10).
- b) Arsine, stibine are indicated with lower sensitivity than phosphine.
- c) Hydrogen sulfide will be indicated by a yellow-brown stain, significantly lighter than phosphine stain and only one-half as long.
- d) Acetylene will no be indicated. Phosphine in acetylene gives a stain about twice as long as in air.

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