

# Information Data Sheet

**Detector Tube PH<sub>3</sub>-50**

**Part No. (US): 489119**

**Part No. D5085831**

## 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<sup>®</sup> I/H, Gas-Tester<sup>®</sup> I / ThumbPump<sup>™</sup>-Sampler, Toximeter<sup>®</sup> II, Uniphos Kwik-Draw<sup>™</sup>-Pump or other suitable detector tubes pumps. Observe respective instructions for use.

## 3. Measuring Range

50 ppm ... 2000 ppm phosphine at n=1 (1 stroke).

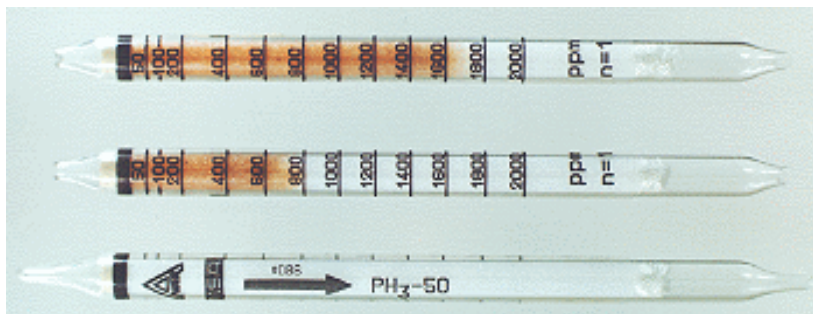
Any number of strokes from 1 to 10 can be chosen. For calculation use n=10 scale, relate as follows:

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

## 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

- No interference from:
  - 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).
- Arsine, stibine are indicated with lower sensitivity than phosphine.
- Hydrogen sulfide will be indicated by a yellow-brown stain, significantly lighter than phosphine stain and only one-half as long.
- Acetylene will no be indicated. Phosphine in acetylene gives a stain about twice as long as in air.

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