Uniphos Detector Tube Data Sheet

Direct Reading Length of Stain Type

Phosphine

PH₃

SPH-4

TLV (TWA): 0.3 ppm TLV (STEL): 1 ppm Flammable Range: ~1.8 - 100%

Specification:

| Measurement Range | Extended | Standard | Extended |
|---------------------------------|--|-------------|-----------------|
| | 25 - 50 ppm | 50-1000 ppm | 1000 – 2000 ppm |
| No. of Pump Strokes | 2 (200 mL) | 1 (100 mL) | 1/2 (50 mL) |
| Volume Correction Factor (VCF)* | 0.5 | 1.0 | 2.0 |
| Sampling Time | 1 minute per stroke (100 mL) | | |
| Color Change | Yellow → Black | | |
| Shelf Life | 2 years | | |
| Storage condition | Below 10°C (50°F) | | |
| Calibration condition | Calibrated at 20°C (68°F) and 50% RH. | | |
| Reaction Principle | PH ₃ + Gold compound → Reaction product | | |
| Relative standard deviation | ± 10 – 15 % | | |

^{*} Multiply the observed reading by the correction factor (VCF) to obtain the true concentration.

Possible Interferences:

| Compound | Concentration (ppm) | Interference | Colour change / Comments |
|-------------------|---------------------|--------------|-----------------------------|
| Arsine | | + | Black |
| Sulphur dioxide | 1000 | No | No Effect |
| Hydrogen sulphide | | + | Black |

Correction for Environmental Parameters:

| Temperature | Not necessary between 0 - 40°C (32 - 104°F). |
|-------------------|--|
| Relative humidity | Not necessary between 10 - 90 %. |