

# Information Data Sheet

**Detector Tube HF-1**

**Part No. (US): 804142**

**Part No. D5086830**

## 1. Application

Detection of hydrogen fluoride (hydrofluoric acid gas, HF) in air or technical gases.

## 2. Detector Tube Sampling Pump

UNIPHOS 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

5 ppm ... 50 ppm hydrogen fluoride at 2 pumpstrokes (n=2).

1 ppm ... 12 ppm hydrogen fluoride at 8 pumpstrokes (n=8).

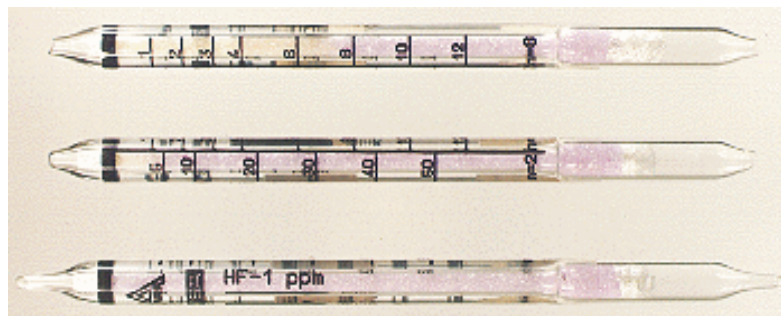
Any number of strokes from n=2 to 8 can be chosen. For calculation use n=8 scale, relate as follows:

$$\text{ppm HF} = \frac{8 \times \text{indication on n=8 scale}}{\text{no. of strokes chosen}}$$

## 4. Chemical Reaction and Color Change

Change of pH-value causes color change of an acid-base-indicator.

Color change: light blue → yellow.



## 5. Ambient Conditions During Sampling

Detector tubes can be used without compensation of the reading between 5 °C and 35 °C (41 °F and 95 °F) and between 20 % rh (1.4 g/m<sup>3</sup> at 5 °C [41 °F]) and 80 % rh (32 g/m<sup>3</sup> at 35 °C [95 °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 5000 ppm (n=8).
- hydrogen sulfide up to 300 ppm (n=8).
- sulfur dioxide up to 5 ppm (n=8).

b) Nitrogen dioxide will be indicated. To distinguish between hydrogen fluoride and nitrogen dioxide use detector tube NO<sub>2</sub>-0,5 (part no.: 487341) which detects only nitrogen dioxide.

*Manufactured By:*

**Uniphos Envirotronic Pvt. Ltd**

P.O. Nahuli - 396 108

Tal. Umbergaon,

Dist: Valsad, Gujarat, India

Tel. : +91(260) 2730156 / 57 / 58

Fax : +91(260) 2730160

*Marketing Office:*

**Uniphos Envirotronic Pvt. Ltd**

Readymoney Terrace, 167,

Dr. Annie Besant Road, Worli,

Mumbai 400 018, India.

Tel. : +91(22) 6123 3500

Fax : +91(22) 2493 8826

+91 (22) 2497 8119

- c) Hydrogen chloride will be indicated. To distinguish between hydrogen fluoride and hydrogen chloride use detector tube HCl-1 (part no.: 803948) which detects - within the concentration range up to 30 ppm (n=5) - only hydrogen chloride.

*Manufactured By:*  
**Uniphos Envirotronic Pvt. Ltd**  
P.O. Nahuli - 396 108  
Tal. Umbergaon,  
Dist: Valsad, Gujarat, India  
Tel. : +91(260) 2730156 / 57 / 58  
Fax : +91(260) 2730160

[gasdetection@uniphos.com](mailto:gasdetection@uniphos.com)

*Marketing Office:*  
**Uniphos Envirotronic Pvt. Ltd**  
Readymoney Terrace, 167,  
Dr. Annie Besant Road, Worli,  
Mumbai 400 018, India.  
Tel. : +91(22) 6123 3500  
Fax : +91(22) 2493 8826  
+91 (22) 2497 8119  
[www.kwikdrawtubes.com](http://www.kwikdrawtubes.com)