

# Information Data Sheet

**Detector Tube**      **CO-5**  
**Part No. (US):**      **803943**  
**Part No.**              **D5085836**

## 1. Application

Detection of carbon monoxide (CO) 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 ... 1,000 ppm carbon monoxide at n = 1 (1 stroke)

5 ppm ... 100 ppm carbon monoxide at n = 10 (10 strokes).

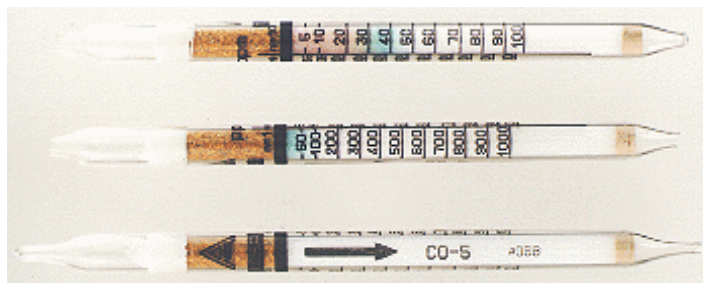
Any number of strokes from 1 to 10 can be chosen. For calculation use n=10 scale, relate as follows:

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

## 4. Chemical Reaction and Color Change

Oxidation of carbon monoxide by iodine pentoxide in fuming sulfuric acid.

Color change: white → light brown / light green.



## 5. Ambient Conditions During Sampling

Detector tubes can be used between 0 °C and 40 °C (32 °F and 104 °F).

## 6. Interferences and Cross Sensitivities

a) No interference from:

- Ethane up to 10 vol.% (n = 1) or 1 vol.% (n = 10); higher concentrations discolor the whole indicating layer, a sharp stain edge is not formed.
- sulfur dioxide, nitrogen oxide, nitrogen dioxide up to 1 vol.% (n = 1) or 1,000 ppm (n=10).

b) Propane and higher saturated hydrocarbons, olefinic hydrocarbons, hydrogen sulfide discolor the protective layer from brown to greenish. At least 1,000 ppm (n = 1) or 100 ppm (n=10) of propane, olefinic hydrocarbons (e.g. ethylene) and hydrogen sulfide are retained. Retention is lower for butanes and higher saturated hydrocarbons (e.g. hexanes). Concentrations of hydrocarbons exceeding the protective capacity may be eliminated by adding a charcoal filter tube Ads (804403).

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- c) Acetylene is indicated: 1,000 ppm is indicated as approx. 400 ppm CO (n = 1).
- d) Water vapor reduces the protective layer retention capacity, in particular for hydrocarbons.

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