

# Information Data Sheet

**Detector Tube      QUALITEST QL**

**Part No. (US):      497665**

**Part No.              D5085810**

## 1. Application

Detection of dangerous (toxic or combustible) gases and vapors in air. In particular for testing the air in confined spaces such as fuel tanks, storage bins, cable vaults, sewers. Furthermore the tube QL can be used to detect or localize leaks, e.g. in pipelines.

## 2. General Description

The detector tube QL does not have any calibration scale. The indication is non-specific and qualitative, i. e. only the presence resp. the absence of contaminants will be detected. The indication gives no information about type or concentration of contaminants detected. A special detector tube with quantitative indication should be used if the presence or the concentration of a known contaminant is to be determined. This applies also to substances which can not be indicated by the detector tube QL. The various contaminants are indicated with different sensitivity. However, the detector tube is sufficiently sensitive for all listed substances. Normally, concentrations of a few ppm are detectable. Among others, the following substances are indicated:

Acetone, acetylene, benzene, 1.3-butadiene, butanes, butylenes, carbon disulfide, carbon monoxide, cyclohexane, diesel oil, ethanol (ethyl alcohol), ethylene, formic acid, fuel oil, gasoline (engine fuel), hydrogen chloride, hydrogen sulfide, kerosene, liquid petroleum gas (propane, butanes), methyl ethyl ketone (butanone), pentanes and other saturated hydrocarbons, phenol, propane, propanols (propyl alcohols), propylene, styrene, tetrachloroethylene (perchloroethylene), toluene, town gas (with CO contents higher than 1 vol. %), 1.1.1-trichloroethane (chloroform), vinyl chloride, xylenes.

The detector tube QL is not suitable to detect sensitively - among others - the following substances: Acetic acid, ammonia, bromine, carbon dioxide, carbon tetrachloride (tetrachloromethane), chlorine, ethane, ethylene oxide, fluorinated hydrocarbons (Freons, Frigenes), hydrogen, hydrogen cyanide, hydrogen fluoride, methane, nitrogen dioxide, phosgene, sulfur dioxide.

## 3 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.

## 4. Chemical Reaction and Color Change

Oxidation of contaminants by iodine pentoxide in fuming sulfuric acid.

Color change:    white      →    brown or green, depending on compound present.



*Manufactured By:*

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## 5. Ambient Conditions During Sampling

- Detector tubes can be used in the temperature range -10 °C ... 50 °C (14 °F ... 120 °F).
- High contents of water vapor in the sample air produce a slight pink discoloration of the indicating layer. Do not evaluate this discoloration. The layer discolored by water vapor does not indicate any contaminant. Indication will be produced from the point at which indicating material is unaffected by water. Do not use tubes for repeated sampling if indicator layer is changed by water more than a quarter of its length.

## 6. General Informations and Cautions

High concentration of contaminants may cause a decoloration of an initially produced indication thus suggesting the non existence of harmful substances. To avoid false interpretation, observe indicating layer for color change during first pump stroke. When using a sampling hose, deviating from normal procedure insert detector tube QL between pump and sampling hose. Perform an additional pump stroke.

Used detector tubes without any color change may be used repeatedly - depending on moisture content of air sample - 10 to 20 times on the same day.

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