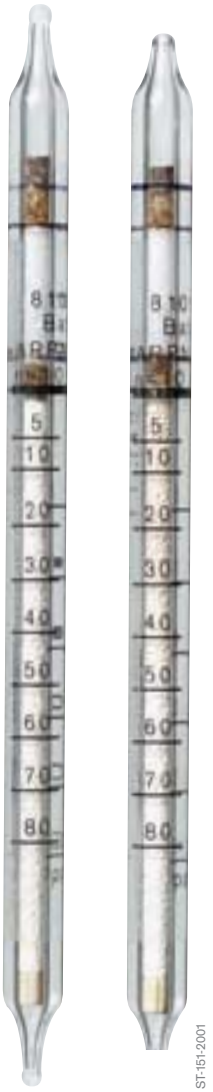
# Xylene (o, m, p) 0.2 to 5 mg/L

**Order No. 81 01 661**

## Application Range

Determination of xylene in water/waste water

| | |
|---|---|
| Dräger-Tube: | Toluene 5/b |
| Measuring range: | 0.2 to 5 mg/L |
| Number of Strokes (n): | 6 |
| Typical Stroke Time: | 60 to 90 s |
| Measurement Time: | approx. 450 s |
| Sample Volume: | 200 mL |
| Color Change: | white → brown violet |
| Temperature Range: | 5 to 30 °C |
| pH-Measurement: | not necessary |




## System Parameters

| Measurement Range [mg/L] | Standard Deviation [%] | Temperature [°C] | Parameters B | C |
|---|---|---|---|---|
| 0.2 to 5 | 40 | 5 to 30 | 0.057 | 0 |

## Evaluation of Measurement

Calculate xylene concentration:

$$Y_{[mg/L]} = A \bullet B \bullet (X_{[ppm]} + C)$$

## Cross Sensitivity

Benzene, toluene, ethylbenzene and styrene are indicated with different sensitivity. Acetone, ethanol and n-octane do not interfere with the reading. Phenol does not interfere with the reading up to a concentration of 100 mg/L

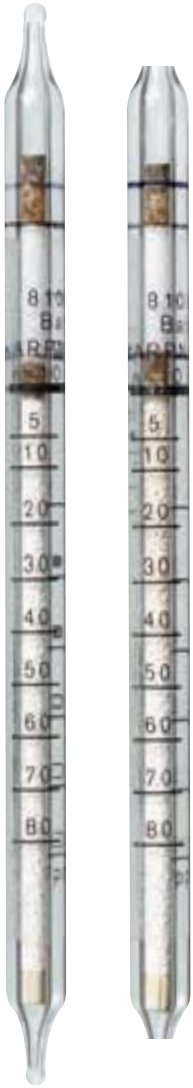
# Ethylbenzene 0.2 to 5 mg/L

**Order No. 81 01 661**

## Application Range

Determination of ethylbenzene in water/waste water

| | |
|---|---|
| Dräger-Tube: | Toluene 5/b |
| Measuring range: | 0.2 to 5 mg/L |
| Number of Strokes (n): | 6 |
| Typical Stroke Time: | 60 to 90 s |
| Measurement Time: | approx. 450 s |
| Sample Volume: | 200 mL |
| Color Change: | white → yellow green |
| Temperature Range: | 5 to 30 °C |
| pH-Measurement: | not necessary |

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## System Parameters

| Measurement Range [mg/L] | Standard Deviation [%] | Temperature [°C] | Parameters B | C |
|---|---|---|---|---|
| 0.2 to 5 | 40 | 5 to 30 | 0.057 | 0 |

## Evaluation of Measurement

Calculate ethylbenzene concentration:

$$Y_{[mg/L]} = A \bullet B \bullet (X_{[ppm]} + C)$$

## Cross Sensitivity

Benzene, toluene, xylene (all isomere) and styrene are indicated with different sensitivity.

Acetone, ethanol and n-octane do not interfere with the reading.

Phenol does not interfere with the reading up to a concentration of 100 mg/L

E

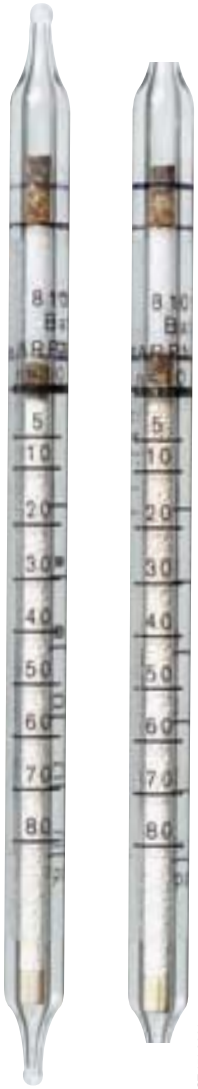
# Benzene 0.2 to 5 mg/L

**Order No. 81 01 661**

## Application Range

Determination of acetic acid in water/waste water

| | |
|---|---|
| Dräger-Tube: | Toluene 5/b |
| Measuring range: | 0.2 to 5 mg/L |
| Number of Strokes (n): | 6 |
| Typical Stroke Time: | 60 to 90 s |
| Measurement Time: | approx. 450 s |
| Sample Volume: | 200 mL |
| Color Change: | white → yellow green |
| Temperature Range: | 5 to 30 °C |
| pH-Measurement: | not necessary |

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## System Parameters

| Measurement Range [mg/L] | Standard Deviation [%] | Temperature [°C] | Parameters B | C |
|---|---|---|---|---|
| 0.2 to 5 | 40 | 5 to 30 | 0.057 | 0 |

## Evaluation of Measurement

Calculate benzene concentration:

$$Y_{[mg/L]} = A \bullet B \bullet (X_{[ppm]} + C)$$

## Cross Sensitivity

Toluene, xylene (all isomere), ethylbenzene and styrene are indicated with different sensitivity.

Acetone, ethanol and n-octane do not interfere with the reading. Phenol does not interfere with the reading up to a concentration of 100 mg/L

# BTX-Aromatics 0.2 to 5 mg/L

**Order No. 81 01 661**

## Application Range

Determination of sum parameter benzene, toluene and xylene in water/waste water

| | |
|---|---|
| **Dräger-Tube:** | Toluene 5/b |
| **Measuring range:** | 0.2 to 5 mg/L |
| **Number of Strokes (n):** | 6 |
| **Typical Stroke Time:** | 60 to 90 s |
| **Measurement Time:** | approx. 450 s |
| **Sample Volume:** | 200 mL |
| **Color Change:** | white → brown violet to yellow |
| **Temperature Range:** | 5 to 30 °C |
| **pH-Measurement:** | not necessary |

## System Parameters

| Measurement Range [mg/L] | Standard Deviation [%] | Temperature [°C] | Parameters B | C |
|---|---|---|---|---|
| 0.2 to 5 | 40 | 5 to 30 | 0.057 | 0 |

## Evaluation of Measurement

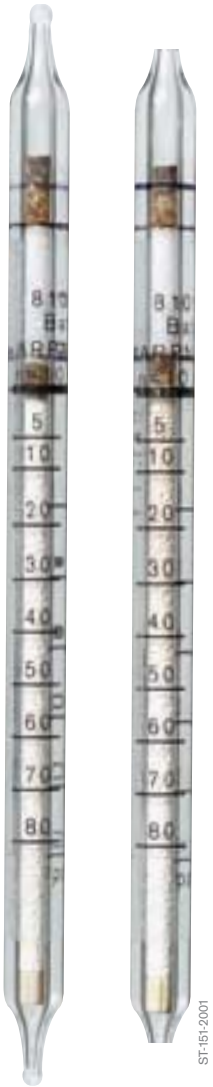
Calculate BTX concentration:

$$Y_{[mg/L]} = A \bullet B \bullet (X_{[ppm]} + C)$$

## Cross Sensitivity

Ethylbenzene and styrene are also indicated, however, with different sensitivities.

Acetone, ethanol and n-octane are not indicated. Phenol does not interfere with the reading up to a concentration of 100 mg/L.



# BTX-Aromatics qualitative in oil

**Order No. 81 01 661**

## Application Range

Determination of sum parameter benzene, toluene and xylene in oil sludges/oil emulsions

| | |
|---|---|
| **Dräger-Tube:** | Toluene 5/b |
| **Measuring range:** | qualitative |
| **Number of Strokes (n):** | maximum 10 |
| **Typical Stroke Time:** | 60 to 80 s |
| **Measurement Time:** | approx. 75 to 740 s |
| **Sample Volume:** | approx. 0.5 g |
| **Color Change:** | white → brown violet to yellow-green |
| **Temperature Range:** | 5 to 25 °C |
| **pH-Measurement:** | not necessary |

## Information of Measurement

- Approx. 0.5 g oil sample has to be shaken intensively with 1 L de-ionized water for 2 minutes in a laboratory bottle.
- The solution must be filtered through an analysis funnel with a round filter (black ribbon) directly into the gas wash bottle up to the 200 mL mark.

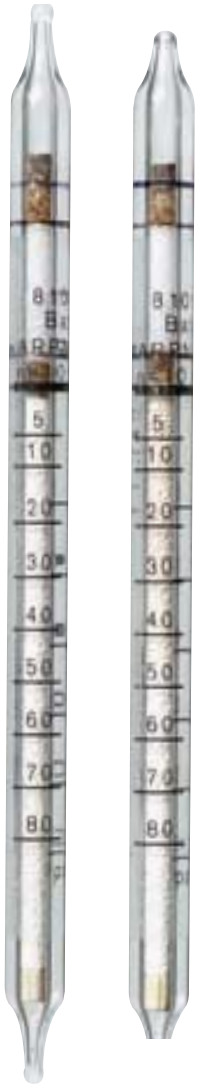
## Evaluation of Measurement

The measurement evaluation is qualitative (yes or no)

## Cross Sensitivity

Benzene, xylene (all isomere), ethylbenzene and toluene are indicated.

Acetone, ethanol, phenol and n-octane are not indicated.

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B

# BTX Aromatics in soil 2 to 50 mg/kg

**Order No. 81 01 661**

## Application Range

Determination of sum parameter benzene, toluene and xylene in soil

| | |
|---|---|
| **Dräger-Tube:** | Toluene 5/b |
| **Measuring range:** | 2 to 50 mg/kg dry substance |
| **Number of Strokes (n):** | 6 |
| **Typical Stroke Time:** | 60 to 90 s |
| **Measurement Time:** | approx. 450 s |
| **Sample Volume:** | 20 g soil |
| **Color Change:** | white → brown violet to yellow green |
| **Temperature Range:** | 5 to 25 °C |
| **pH-Measurement:** | not necessary |

## Information of Measurement

- 20 g soil is suspended completely with 100 mL de-ionized water and 1 mL surfactant solutions (2 mass % Extran AP 13, Merck).
- The precipitate must rest for approx. 1 minute, until the particles have settled to the bottom; the liquid above the particles has to be filled into the wash bottle
- The remaining precipitate has to be shaken two times with 50 mL de-ionized water and the liquid above the particles has to be filled into the wash bottle
- The gas wash bottle is filled up with de-ionized water up to 200 mL mark.

## System Parameters

| Measurement Range [mg/kg] | Standard Deviation [%] | Temperature [°C] | Parameters B | C |
|---|---|---|---|---|
| 2 to 50 | 50 | 15 to 25 | 0.456 | 0 |

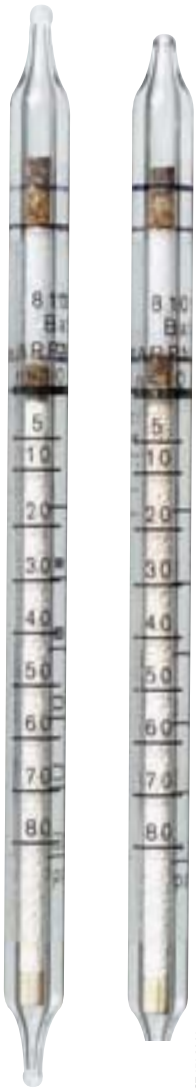
## Evaluation of Measurement

Calculate BTX concentration:

$Y_{soil[mg/L]} = A \bullet B \bullet (X_{[ppm]} + C)$

## Cross Sensitivity

Ethylbenzene and styrene are indicated with different sensitivity. Acetone, ethanol and n-octane do not interfere with the reading. Phenol does not interfere with the reading up to a concentration of 100 mg/L




ST-1512001

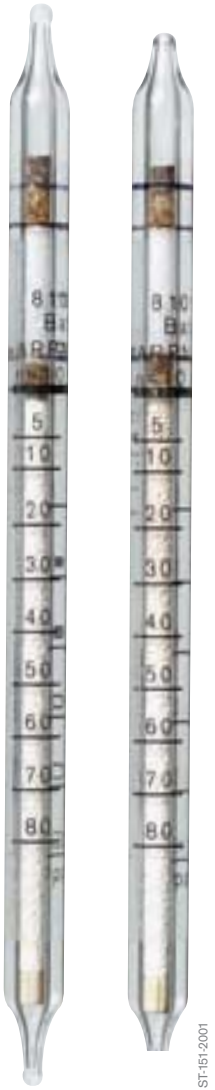
# Toluene 0.2 to 5 mg/L

**Order No. 81 01 661**

## Application Range

Determination of toluene in water/waste water

| | |
|---|---|
| Dräger-Tube: | Toluene 5/b |
| Measuring range: | 0.2 to 5 mg/L |
| Number of Strokes (n): | 6 |
| Typical Stroke Time: | 60 to 90 s |
| Measurement Time: | approx. 450 s |
| Sample Volume: | 200 mL |
| Color Change: | white → yellow green |
| Temperature Range: | 5 to 30 °C |
| pH-Measurement: | not necessary |

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## System Parameters

| Measurement Range [mg/L] | Standard Deviation [%] | Temperature [°C] | Parameters B | C |
|---|---|---|---|---|
| 0.2 to 5 | 40 | 5 to 30 | 0.057 | 0 |

## Evaluation of Measurement

Calculate toluene concentration:

$$Y_{[mg/L]} = A \bullet B \bullet (X_{[ppm]} + C)$$

## Cross Sensitivity

Benzene, xylene (all isomere), ethylbenzene and styrene are indicated with different sensitivity. Acetone, ethanol and n-octane do not interfere with the reading. Phenol does not interfere with the reading up to a concentration of 100 mg/L.