Diesel Fuels 0.5 to 5 mg/L

Order No. 81 01 691

Application Range

Determination of diesel fuels in water/waste water

Dräger-Tube:	Petroleum hydrocarbons 10/a
Measuring range:	0.5 to 5 mg/L
Number of Strokes (n):	8
Typical Stroke Time:	30 to 60 s
Measurement Time:	approx. 360 s
Sample Volume:	200 mL
Color Change:	white → brown green
Temperature Range:	5 to 25 °C
pH-Measurement:	not necessary

System Parameters

Measurement Range [mg/L]	Standard Deviation [%]	Temperature [°C]	Parameters B	C
0.5 to 5	30	5 to 25	0.089	0

Readings > 50 ppm give qualitative results, only.

Evaluation of Measurement

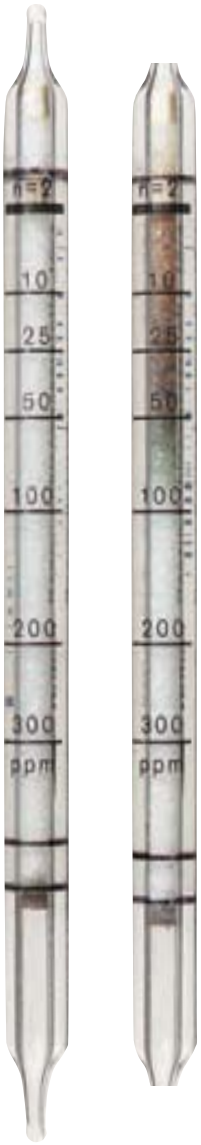
Calculate diesel fuel concentration:

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

Cross Sensitivity

Ethyl acetate, diesel oil, hydrogen sulfide and toluene are indicated with lower sensitivity.

Perchloroethylene is indicated with higher sensitivity.



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D

Diesel Fuels qualitative in soil

Order No. 81 01 691

Application Range

Determination of diesel fuels in soil

Dräger-Tube:	Petroleum Hydrocarbons 10/a
Measuring range:	qualitative
Number of Strokes (n):	maximum 10
Typical Stroke Time:	30 to 60 s
Measurement Time:	approx. 45 to 450 s
Sample Volume:	20 g
Color Change:	white → brown green
Temperature Range:	5 to 25 °C
pH-Measurement:	not necessary

Information of Measurement

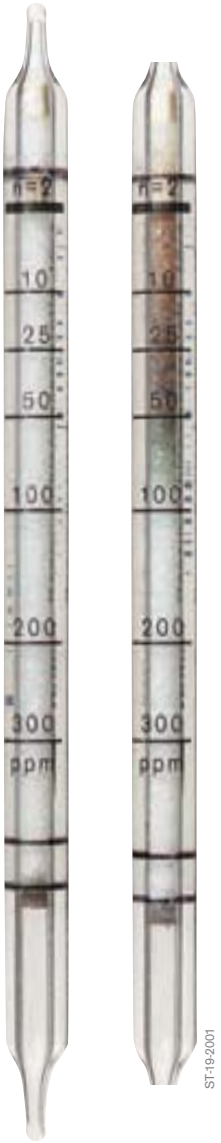
- 20 g soil is suspended completely with 100 mL de-ionized water.
- The precipitate must rest for approx. 1 minute, until the particles have settled to the bottom; the liquid above the particles has to be filled into the was bottle
- The remaining precipitate has to be shaken two times with 50 mL de-ionized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

Evaluation of Measurement

The measurement evaluation is qualitative (yes or no)

Cross Sensitivity

Diesel oil, ethyl acetate, perchloroethylene, hydrogen sulfide and toluene are also indicated.



Gasoline qualitative in soil

Order No. 81 01 691

Application Range

Determination of gasoline in soil

Dräger-Tube:	Petroleum Hydrocarbons 10/a
Measuring range:	qualitative
Number of Strokes (n):	maximum 10
Typical Stroke Time:	30 to 60 s
Measurement Time:	approx. 45 to 450 s
Sample Volume:	20 g
Color Change:	white → brown green
Temperature Range:	5 to 25 °C
pH-Measurement:	not necessary

Information of Measurement

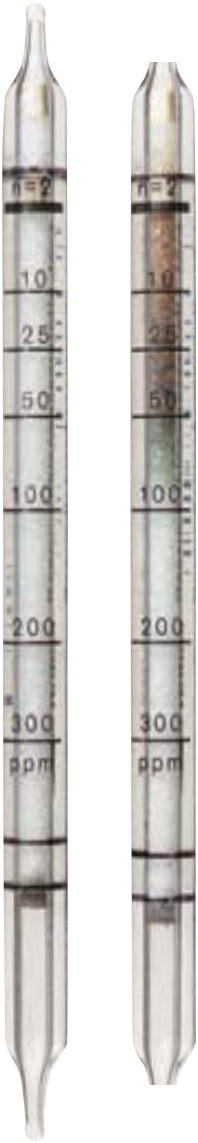
- 20 g soil is suspended completely with 100 mL de-ionized water.
- The precipitate must rest for approx. 1 minute, until the particles have settled to the bottom; the liquid above the particles has to be filled into the was bottle
- The remaining precipitate has to be shaken two times with 50 mL de-ionized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

Evaluation of Measurement

The measurement evaluation is qualitative (yes or no)

Cross Sensitivity

Diesel oil, ethyl acetate, perchloroethylene, hydrogen sulfide and toluene are also indicated.



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G

Gasoline 0.1 to 2 mg/L

Order No. 81 01 691

Application Range

Determination of gasoline in water/waste water

Dräger-Tube:	Petroleum Hydrocarbons 10/a
Measuring range:	0.1 to 2 mg/L for n-octan
Number of Strokes (n):	2
Typical Stroke Time:	30 to 60 s
Measurement Time:	approx. 90 s
Sample Volume:	200 mL
Color Change:	white → brow green
Temperature Range:	5 to 25 °C
pH-Measurement:	not necessary

System Parameters

Measurement Range [mg/L]	Standard Deviation [%]	Temperature [°C]	Parameters B	C
0.1 to 2	30	5 to 25	0.010	0

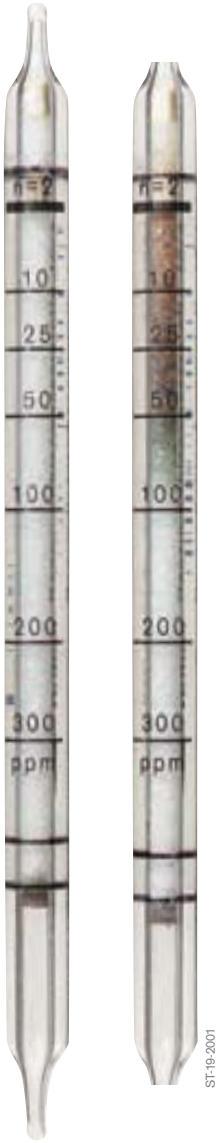
Evaluation of Measurement

Calculate gasoline concentration:

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

Cross Sensitivity

Ethyl acetate, diesel oil, hydrogen sulfide and toluene are indicated with lower sensitivity. Perchloroethylene is indicated with higher sensitivity.



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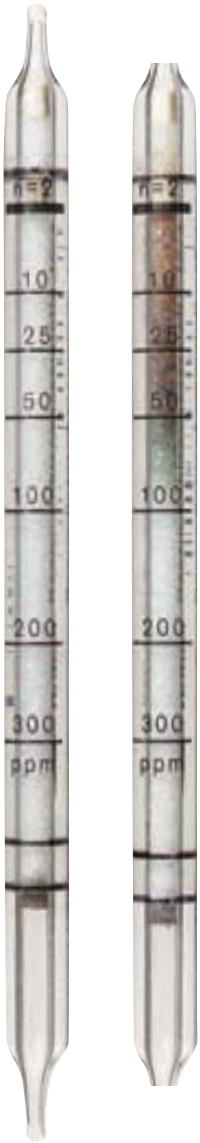
Jet Fuels (Kerosene) 0.5 to 5 mg/L

Order No. 81 01 691

Application Range

Determination of jet fuels in water/waste water

Dräger-Tube:	Petroleum hydrocarbons 10/a
Measuring range:	0.5 to 5 mg/L
Number of Strokes (n):	4
Typical Stroke Time:	30 to 60 s
Measurement Time:	approx. 180 s
Sample Volume:	200 mL
Color Change:	white → brown green
Temperature Range:	5 to 25 °C
pH-Measurement:	not necessary



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System Parameters

Measurement Range [mg/L]	Standard Deviation [%]	Temperature [°C]	Parameters B	C
0.5 to 5	25	5 to 25	0.062	0

Evaluation of Measurement

Calculate jet fuel concentration:

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

Cross Sensitivity

Ethyl acetate, diesel oil, hydrogen sulfide and toluene are indicated with lower sensitivity. Perchloroethylene is indicated with higher sensitivity.

J

Jet Fuels (Kerosene) qualitative in soil

Order No. 81 01 691

Application Range

Determination of jet fuels in soil

Dräger-Tube:	Petroleum Hydrocarbons 10/a
Measuring range:	qualitative
Number of Strokes (n):	maximum 10
Typical Stroke Time:	30 to 60 s
Measurement Time:	approx. 45 to 450 s
Sample Volume:	20 g
Color Change:	white → brown green
Temperature Range:	5 to 25 °C
pH-Measurement:	not necessary

Information of Measurement

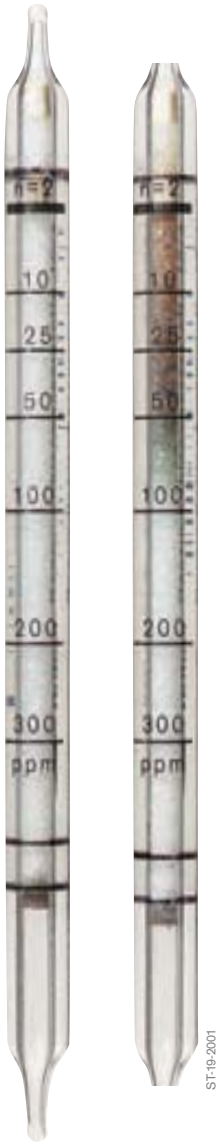
- 20 g soil is suspended completely with 100 mL de-ionized water.
- The precipitate must rest for approx. 1 minute, until the particles have settled to the bottom; the liquid above the particles has to be filled into the was bottle
- The remaining precipitate has to be shaken two times with 50 mL de-ionized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

Evaluation of Measurement

The measurement evaluation is qualitative (yes or no)

Cross Sensitivity

Diesel oil, ethyl acetate, perchloroethylene, hydrogen sulfide and toluene are also indicated.



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n-Octane 0.1 to 2 mg/L

Order No. 81 01 691

Application Range

Determination of n-octane in water/waste water

Dräger-Tube:	Petroleum Hydrocarbons 10/a
Measuring range:	0.1 to 2 mg/L
Number of Strokes (n):	2
Typical Stroke Time:	30 to 60 s
Measurement Time:	approx. 90 s
Sample Volume:	200 mL
Color Change:	white → brown green
Temperature Range:	5 to 25 °C
pH-Measurement:	not necessary

System Parameters

Measurement Range [mg/L]	Standard Deviation [%]	Temperature [°C]	Parameters B	C
0.1 to 2	30	5 to 25	0.010	0

Evaluation of Measurement

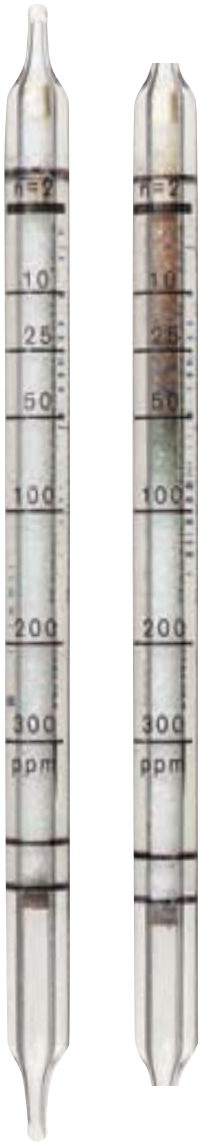
Calculate n-octane concentration:

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

Cross Sensitivity

Ethyl acetate, diesel oil, hydrogen sulfide and toluene are indicated with lower sensitivity.

Perchloroethylene is indicated with higher sensitivity.



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N