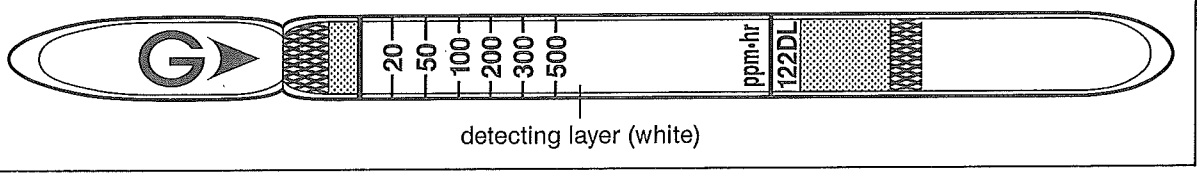
Dosi-tube

Toluene $C_6H_5CH_3$ No.122DL



detecting layer (white)

Performance

Measuring range : 2 to 500 ppm
Sampling time : 1 to 10 hours
Colour change : White → Brown
Corrections for temperature & humidity : Temperature correction is necessary.
Relative standard deviation : 10 % (for 20 to 500 ppm·hr)
Shelf life : 2 years

Reaction principle

Toluene reacts with formaldehyde to form condensation polymer, which is brown in colour.

Possible coexisting substances and their interferences (NOTE : Page 2-5)

Substance	Concentration	Interference	Changes colour by itself to
Alcohols, Esters, Ketones	≦ 30 ppm	No	No
Aromatic hydrocarbons		+	Brown

Other substances measurable with this Dosi-tube

Substance	Correction	Sampling time	Measuring range
Ethyl benzene	Factor : 1.4	1 to 10 hours	2.8 to 700 ppm
Xylene	Factor : 1.7		3.4 to 850 ppm
Cumene	Factor : 1.7		3.4 to 850 ppm
Benzene	Factor : 1.2		2.4 to 600 ppm
Styrene	Factor : 13		26 to 6500 ppm

Calibration gas generation

Diffusion tube method

TLV-TWA : 20 ppm

Explosive range : 1.4 to 6.7 %