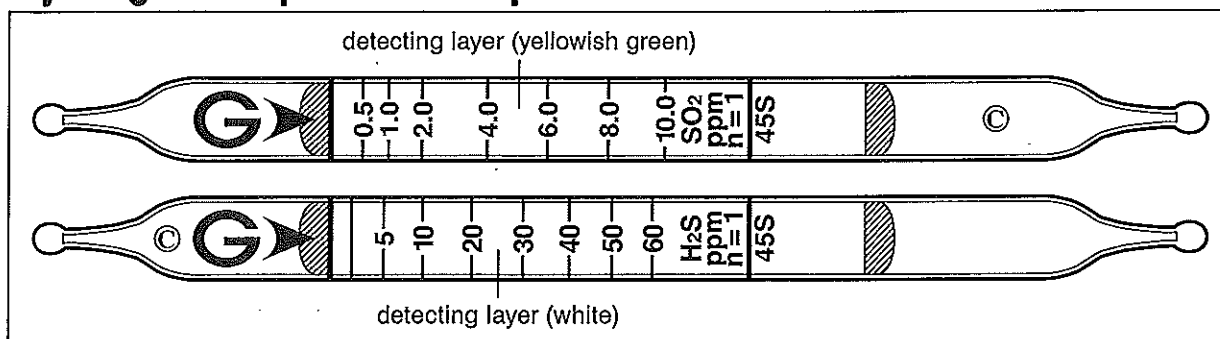


# Hydrogen Sulphide & Sulphur Dioxide <sup>H<sub>2</sub>S & SO<sub>2</sub></sup> (separate quantification) **No.45S**



## Performance

Detector tube	SO <sub>2</sub> tube	H <sub>2</sub> S tube	SO <sub>2</sub> tube	H <sub>2</sub> S tube	SO <sub>2</sub> tube	H <sub>2</sub> S tube
Measuring range (ppm)	0.25 to 0.5	1.25 to 2.5	0.5 to 10	(2.5) to 60	10 to 20	60 to 120
Number of pump strokes	2 (200 ml)		1 (100 ml)		1/2 (50 ml)	
Correction factor	1/2		1		2	
Sampling time	3 min		1.5 min		45 sec	

Detecting limit : SO<sub>2</sub>/H<sub>2</sub>S tubes : 0.05 ppm (2 pump strokes)

Colour change : SO<sub>2</sub> tube : Yellowish green → Yellow

H<sub>2</sub>S tube : White → Brown

Corrections for temperature & humidity : Unnecessary

Relative standard deviation : SO<sub>2</sub> tube : 10 % (for 0.5 to 2 ppm), 5 % (for 2 to 10 ppm)

H<sub>2</sub>S tube : 10 % (for 2.5 to 10 ppm), 5 % (for 10 to 60 ppm)

Shelf life : 3 years

## Reaction principle

SO<sub>2</sub> tube : SO<sub>2</sub> + BaCl<sub>2</sub> + H<sub>2</sub>O → BaSO<sub>3</sub> + 2HCl    HCl + Base → Chloride

H<sub>2</sub>S tube : H<sub>2</sub>S + Pb(CH<sub>3</sub>COO)<sub>2</sub> → PbS + 2CH<sub>3</sub>COOH

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

Substance	Concentration	Interference		Changes colour by itself to	
		SO <sub>2</sub> tube	H <sub>2</sub> S tube	SO <sub>2</sub> tube	H <sub>2</sub> S tube
Nitrogen dioxide	≥ 5 ppm	+	No	Pale purple } No } No	} No
Carbon monoxide		No	No		
Mercaptans		No	No		
Nitrogen monoxide		No	No		

## Calibration gas generation

Permeation tube method

## Special note

When used, connect the SO<sub>2</sub> tube and the H<sub>2</sub>S tube (with both ends broken off).

This twin tube can measure SO<sub>2</sub> and H<sub>2</sub>S simultaneously.

(H<sub>2</sub>S) TLV-TWA : 1 ppm  
(SO<sub>2</sub>)

TLV-STEL : 5 ppm  
TLV-STEL : 0.25 ppm

Explosive range : 4.0 to 44 %