

Hydrogen Sulfide, Sulfur Dioxide

H₂S, SO₂
(Separate quantification) **no.45S**



Performance

Name of Gas	SO ₂ tube	H ₂ S tube	SO ₂ tube	H ₂ S tube	SO ₂ tube	H ₂ S tube
Measuring Range	2.5 to 0.5	12.5 to 2.5	0.5 to 10	(2.5) to 60	10 to 20	60 to 120
Pump Strokes	2		1		1/2	
Correction Factor	1/2		1		2	
Sampling Time	1.5 minutes per pump stroke					
Detecting Limit	0.05 ppm (n=2)					
Colour Change	SO ₂ tube : Yellowish green → Yellow H ₂ S tube : White → Dark brown					
Reaction Formula	SO ₂ tube: Sulphur dioxide reacts with barium chloride to liberate hydrogen chloride to discolour the pH indicator to yellow. H ₂ S tube: Hydrogen sulphide reacts with lead acetate to form lead sulphide, which colour is brown.					
Coefficient of Variation	SO ₂ tube: 10% (for 0.5 to 2 ppm), 5% (for 2 to 10 ppm) H ₂ S tube: 10% (for 2.5 to 10 ppm), 5% (for 10 to 60 ppm)					
Shelf Life	3 Years					
Corrections for temperature & humidity	Unnecessary					

Store the tubes at cool and dark place.

Possible coexisting substances and their interferences

Substance	Concentration	Interference		Change colour by itself	
		SO ₂ tube	H ₂ S tube	SO ₂ tube	H ₂ S tube
Nitrogen dioxide	≥5 ppm	Plus error	No effect	Pale purple	No discoloration
Nitrogen monoxide	-	No effect	No effect	No discoloration	
Mercaptans					
Carbon monoxide					

Calibration gas generation Permeation tube method

TLV-TWA	TLV-STEL	Explosive range
SO ₂ : 2ppm H ₂ S : 10ppm	SO ₂ : 5ppm H ₂ S : 15ppm	H ₂ S : 4.0 to 44%

Special Note

When used, connect the SO₂ tube and the H₂S tube (with both ends broken off) This twin tube can measure SO₂ and H₂S simultaneously.