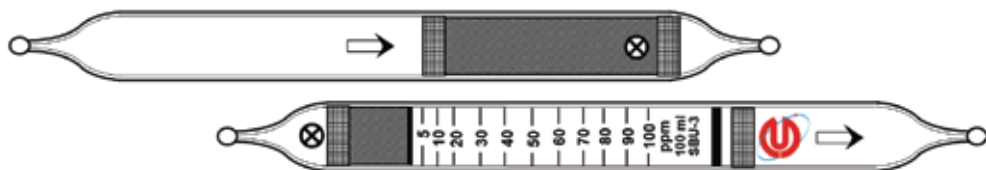


1,3 Butadiene

**SBU-3**

Specification :

Measurement Range	Extended	Standard	Extended
	Do not Extend	5 - 100 ppm	Do not Extend
No. of Pump Strokes		1 (100 ml)	
Volume Correction Factor (VCF)*		1.0	
Sampling Time	2.0 minutes per pump stroke (100 ml)		
Color Change	Purple → Off White/Yellowish		
Detection Limit	2 ppm (1 pump stroke)		
Shelf Life	1 year		
Relative standard deviation	± 10 – 15 %		

* Multiply the observed reading by the correction factor (VCF) to obtain the true concentration.

Reaction Principle :

1,3 Butadiene + $\text{KMnO}_4 \rightarrow$ Off white reaction product

Possible Interferences :

Compound	Concentration (ppm)	Interference	Color Change / Comments
Acetylene		+	Off White/Yellowish
Hydrogen sulphide	15	+	Off White/Yellowish
Hydrogen cyanide		+	Off White/Yellowish
Hydrogen chloride	≤100	No	No Effect
Carbon monoxide	≤15	No	No effect
Ammonia	≤45	No	No Effect

Correction For Environmental Parameters :

Temperature	Not necessary between 0 - 40°C (32 - 104°F).
Relative humidity	Not necessary between 10 - 90 %.

Calibration Of The Tube :

High Pressure cylinder method.