

DEVICE	USE	GASSES	RANGE	INDICATOR		COMMENTS
Interscan Gas Analyzer	Clearing Detection	Vikane	0 - 50 ppm	Direct reading		Do not expose to over 50 ppm Avoid electrical signals Business must have 2-at least 1 properly functioning at all times
Miran Infrared Gas Analyzer	Clearing	Vikane		Direct reading	 	Very expensive
Draeger & Draeger Tubes	Clearing	Methyl Bromide Chloropicrin Phosphine	3 - 50 ppm	Paper in tube turns gray to blue		Bellows
Kitigawa Tubes	Clearing	Methyl Bromide Chloropicrin		Paper in tubes turns white to yellow		
T.I.F. Halogen Gas Leak Detector	Leak Detection	Vikane	Less than 50 ppm	Audible beeps	 	Widely used
Halide Flame Detector	Leak Detection	Methyl Bromide	25 - 1000 ppm	Yellow flame turns blue		Butane torch with copper cone
Fumiscopescope	Monitoring	Vikane Methyl Bromide	Vikane - >150 ppm	Direct reading		Thermal conductivity detector Accurate to 1 oz/Mcf Requires dry air RDA - monitoring via telephone/cell phone (goes inside)
GOW-MAC Gas Analyzer	Monitoring	Methyl Bromide		Direct reading		

GAS	SAFETY EQUIPMENT	COMMENT
<p>Chloropicrin</p>	<p>Chemically resistant gloves and goggles/face shield</p>	
<p>Vikane</p>	<p>Goggles/face shield, slip resistant shoes Do Not wear gloves or boots (can trap leaking SF liquid next to skin)</p>	
<p>Methyl Bromide</p>	<p>Face shield or safety glasses with brow and temple protection Do Not wear goggles or contact lenses (can catch and hold liquid fumigant to the eyes) Do Not wear gloves while releasing gas Wear long-sleeved shirt, long pants, shoes, and socks</p>	<p>Do Not wear sandals, or rubber boots, rubber protective clothing, tight clothing, or jewelry It may catch and hold fumigant on skin causing burns to be more severe</p>

Knows this Chart
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other	Commodities	monitor	Clearing	Detection	Reaction	Sol. in H2O	Aeration	Odor	Color	Flammable	Boiling point	Vapor density	Fumigant (lightest to heaviest)
<p>Bulk grain bins Only fume for railcars in transit Corrosive to metals Comes as pellets</p>	Grain		Draeger		Copper and precious metals		Rapid	Garlic		Yes			Phosphine
<p>Reaches equilibrium in 1 hr Not corrosive to metals Museums, Antiques Liquid will damage metal and glass Rail car must have Guard Extend tarp 2' out Mulch - 12" out Bushes - 18" back</p>	No Food - structural only	Furni-scope GOW-MAC Gas Analyzer	InterScan Clear-5 PPM Good for 0-50 PPM Business must have 2 Miran Infrared	TIF- Less than 50 PPM	In flame		Rapid aeration - See label	No	Clear	No	-67°	3.5	Vikane (sulfuryl fluoride)
<p>Quarantine fumers Needs heat exchanger Kills all insect stages Safe for food Only fume for aircraft</p>	Plants dairy products meats fruits tobacco	Furni-scope	Draeger Kitigawa	Halide Torch	With sulfur - creates odors		72 Hrs with fans - 1 week without	No	Clear	No	38°		Methyl Bromide (Metho-gas)
<p>Warm lasts 22-24 hr Release 5-10 min prior to fume</p>	No - not with food		Draeger	Tears- 3 PPM	Corrosive in moisture	No	Slow 12-24 hrs	Yes	Clear	No		6X	Chloropicrin

