

Syft SafetySure

Speed & simplicity that ensure
workplace **safety**

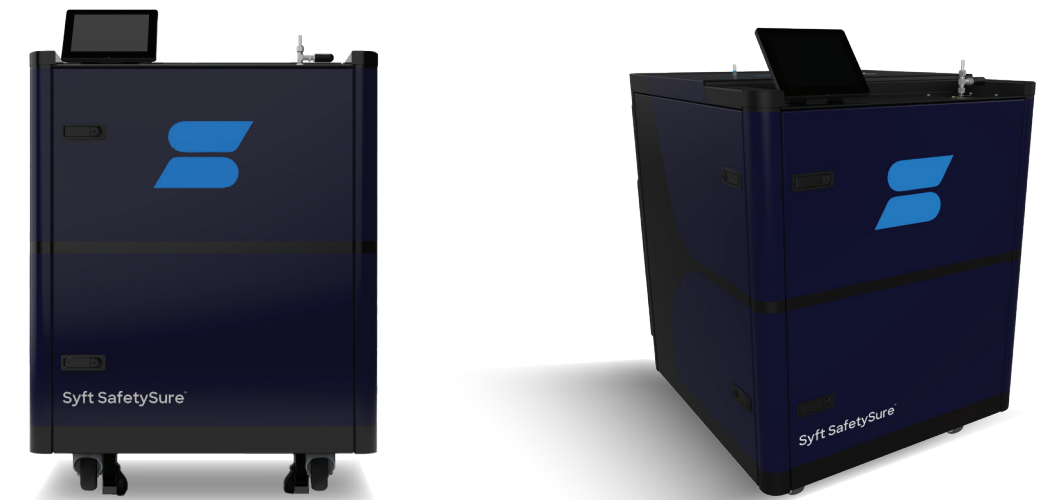


 **Syft**[™]
Simply . Faster .

Syft SafetySure is the class-leading solution for rapid, reliable detection of fumigants and volatile toxic industrial chemicals

Frontline workers within industry and government agencies are often exposed to hazardous volatile compounds such as fumigants and toxic industrial chemicals. In some cases, fatalities have occurred. Repeated exposure to volatile compounds from indoor air in workplace settings can lead to chronic health issues. Handheld devices, sensors, and colorimetric tubes offer limited selectivity and reliability in monitoring for toxic volatile compounds and often come with a high consumable cost.

Syft SafetySure is a fast, simple and reliable solution for detecting dangerous volatile chemicals in applications such as indoor air safety monitoring and shipping container safety screening. The selectivity inherent to Selected-Ion Flow Tube Mass Spectrometry (SIFT-MS) mitigates false positive issues experienced by alternative technologies while providing quantitative results through a platform designed for non-technical users. Syft SafetySure detects a wide range of volatile compounds at trace levels (ppbV - ppmV) with a low cost per sample. It features a linear dynamic range broad enough to detect hazardous compounds within their relevant safety exposure limits and at concentrations 10X higher and lower than the defined parameters. You can have confidence that the results provided are accurate, actionable, and easy to understand.



- Fast and quantitative measurement of fumigants and other toxic industrial chemicals
- Compound detection that is highly sensitive, selective and reproducible
- Designed for non-technical operators with actionable results that can be easily understood
- No consumables, columns, solvents, or complicated workflows required
- Engineered for use in rugged environments with temperature/humidity changes and vibrations
- Suitable for use in non-lab settings, production environments, and mobile applications

Speed and dependability that protect people

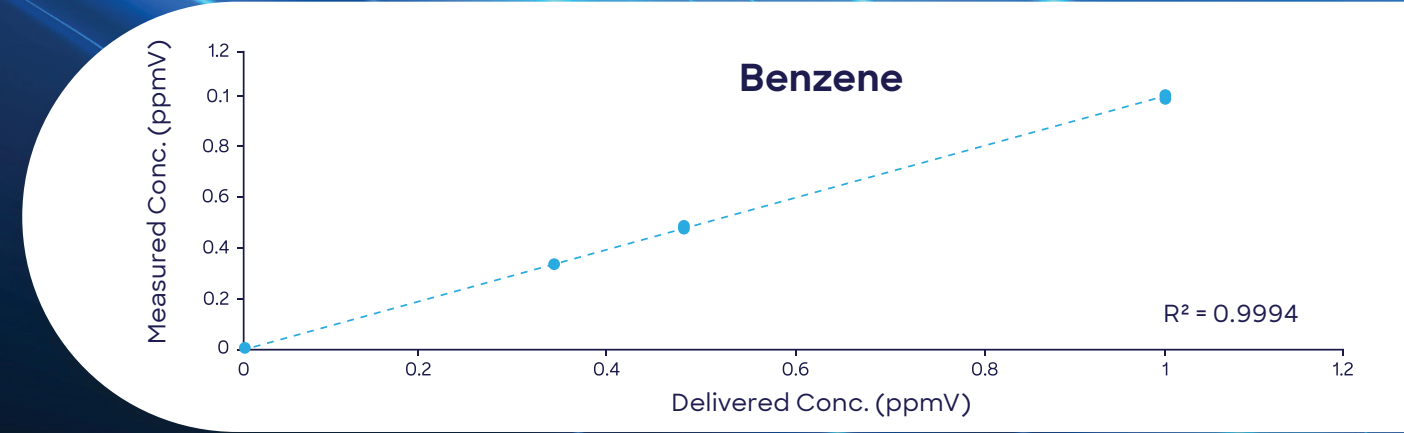
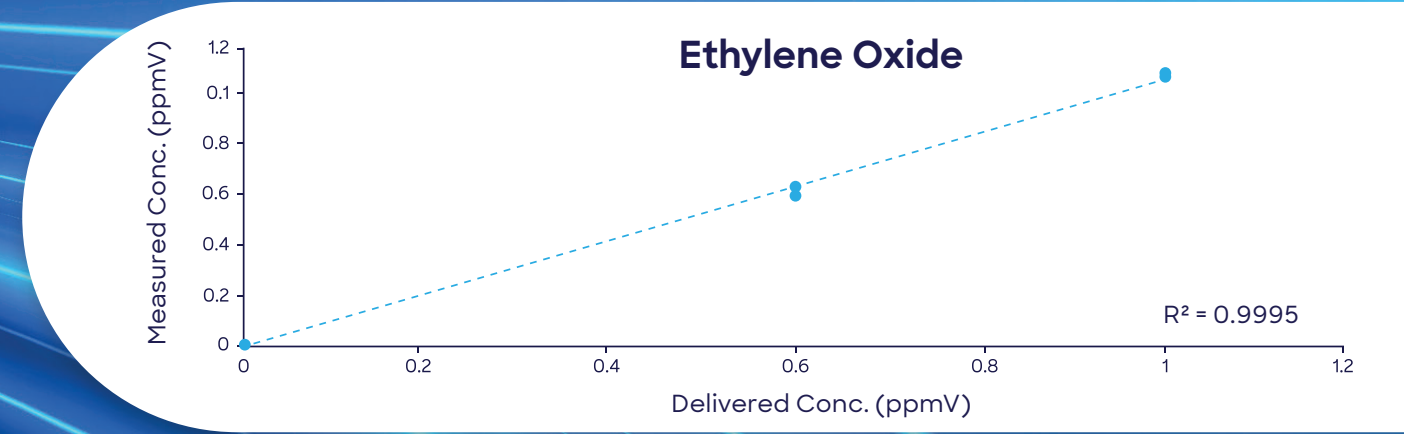
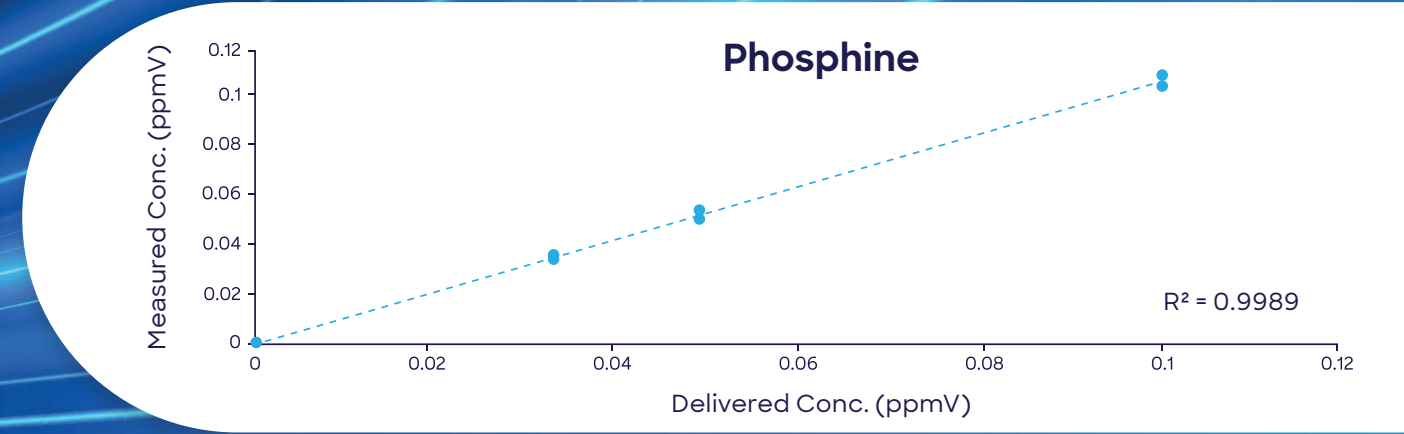
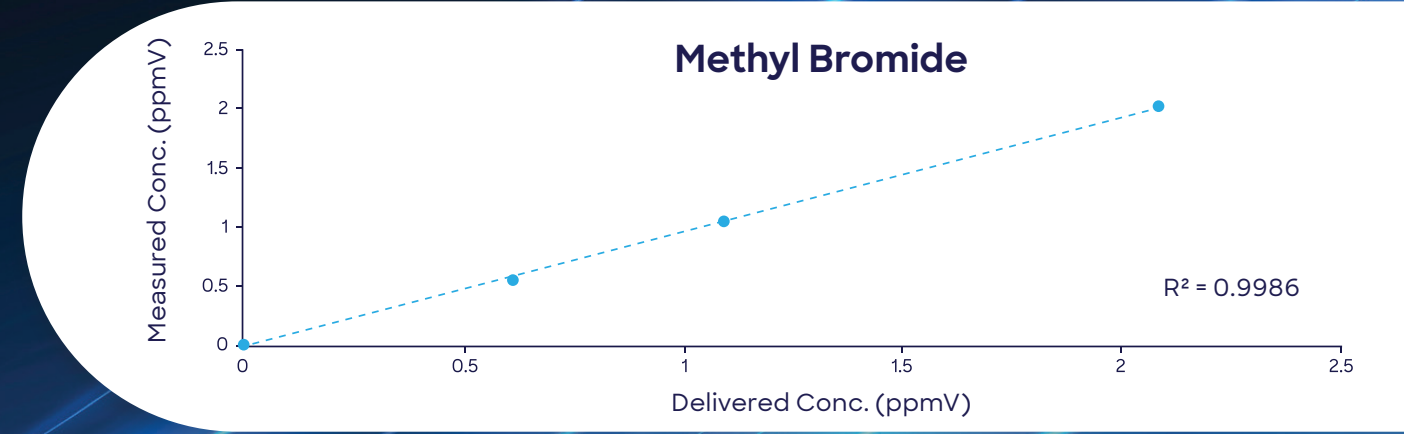
There is worldwide demand for more dependable testing systems to reduce exposure to hazardous chemicals. Proven methods are needed to ensure workplace safety and to protect the long-term health of workers. Techniques that frequently produce false positives or negatives reduce confidence in their results and put worker safety at risk.

Syft SafetySure provides reproducible identification and quantification of hazardous chemicals commonly found in workplaces such as methyl bromide, sulfuryl fluoride, chloropicrin, ethylene dibromide, ethylene oxide and phosphine. Toxic industrial chemicals like benzene, toluene, ethanol, 1,3 butadiene, perchloroethylene and vinyl chloride are consistently detected and quantified. SIFT-MS has the selectivity and sensitivity to provide accurate quantification of toxic compounds that are present within a mixture of volatile industrial chemicals. Syft SafetySure is optimized to detect compounds of interest within the relevant concentration ranges of their short-term exposure and longer-term time weighted average limits. Unambiguous results are provided so immediate action can be taken.

Syft Technologies has been protecting frontline workers for decades. SIFT-MS has prevented thousands of workplace incidents where workers would have been exposed to hazardous compounds above their defined concentration safety limits. Syft SafetySure is the most proven, dependable solution available for monitoring air quality in workplace settings.

Volatile toxic compound detection that is accurate and reproducible

Fig 1. The figures on the right show quantitative analysis of data sampled in triplicate from Tedlar bags indicating the presence of hazardous compounds near their exposure safety limits. Syft SafetySure has the sensitivity to quantify toxic threats below their defined safety limits and a broad linear dynamic range that enables detection within relevant concentration ranges.



Syft ContainerSure is a complete solution for monitoring chemical exposure in shipping containers

Syft ContainerSure

Syft ContainerSure is a bundled solution for safely monitoring shipping container chemical exposure enabled by the Syft SafetySure analyzer. It is designed for straightforward sampling that keeps frontline workers out of harm's way and fast analysis to quickly identify volatile threats. The Syft SafetySure analyzer's dynamic range is optimized to detect fumigants which exceed workplace exposure limits such as phosphine, hydrogen cyanide, sulfuryl fluoride, methyl bromide, chloropicrin, ethylene oxide, and ethylene dibromide. Unambiguous results are provided in seconds that are accurate and reproducible. Syft ContainerSure is used by border security and customs agencies worldwide.

Can Include:



Sample collection case containing small pump that fills sample bags without requirement of opening container door



Sampling inlet designed for fast sample analysis, including sampling from Tedlar bags



Results integrated with Tedlar bag bar code IDs



Flushing station to automatically purge multiple Tedlar bags between samples



UPS for stable power supply and controlled shutdown procedure during power outages



Sample collection wand for sampling hazardous areas from a safe location

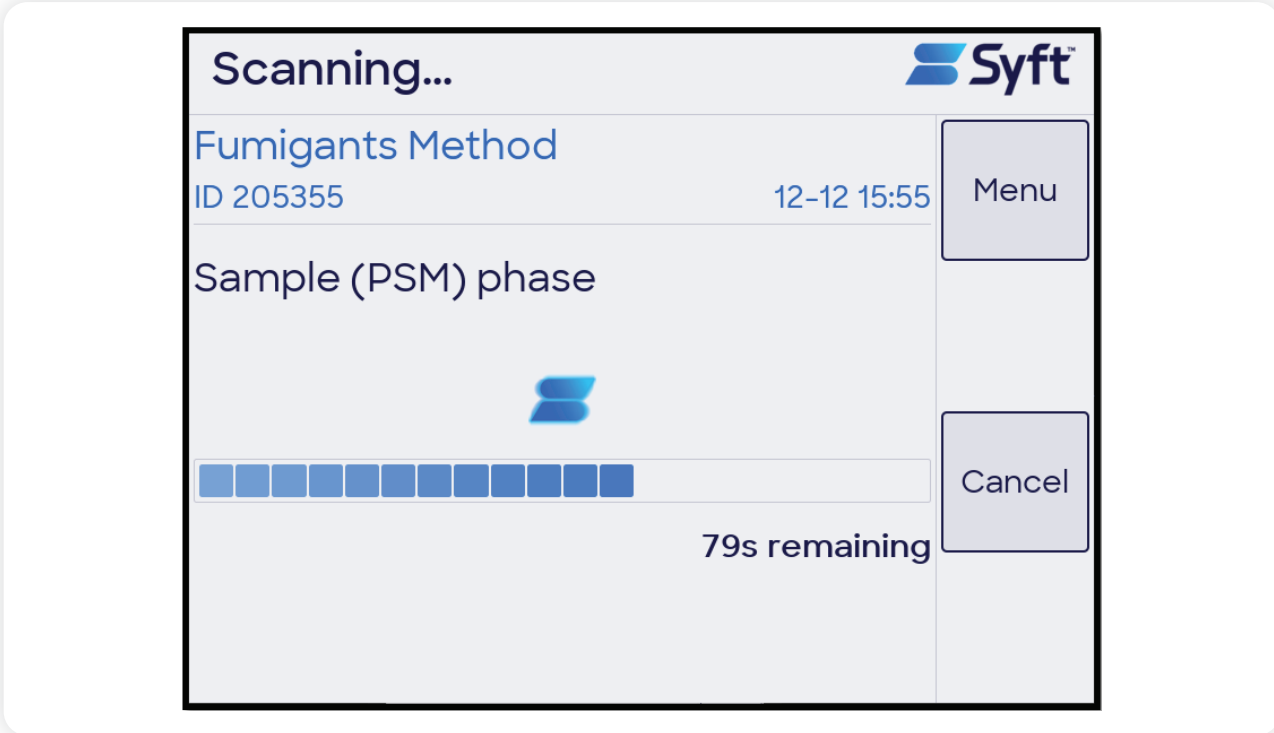


Push-button simplicity with unambiguous results

Syft's instrument software is designed for non-technical users to produce actionable outputs that are easy to understand. Changing analysis types is as simple as choosing a different method, which can be preconfigured by Syft. A few button pushes are all that is required to get clear results in seconds. Adverse health events can be a thing of the past using Syft SafetySure.

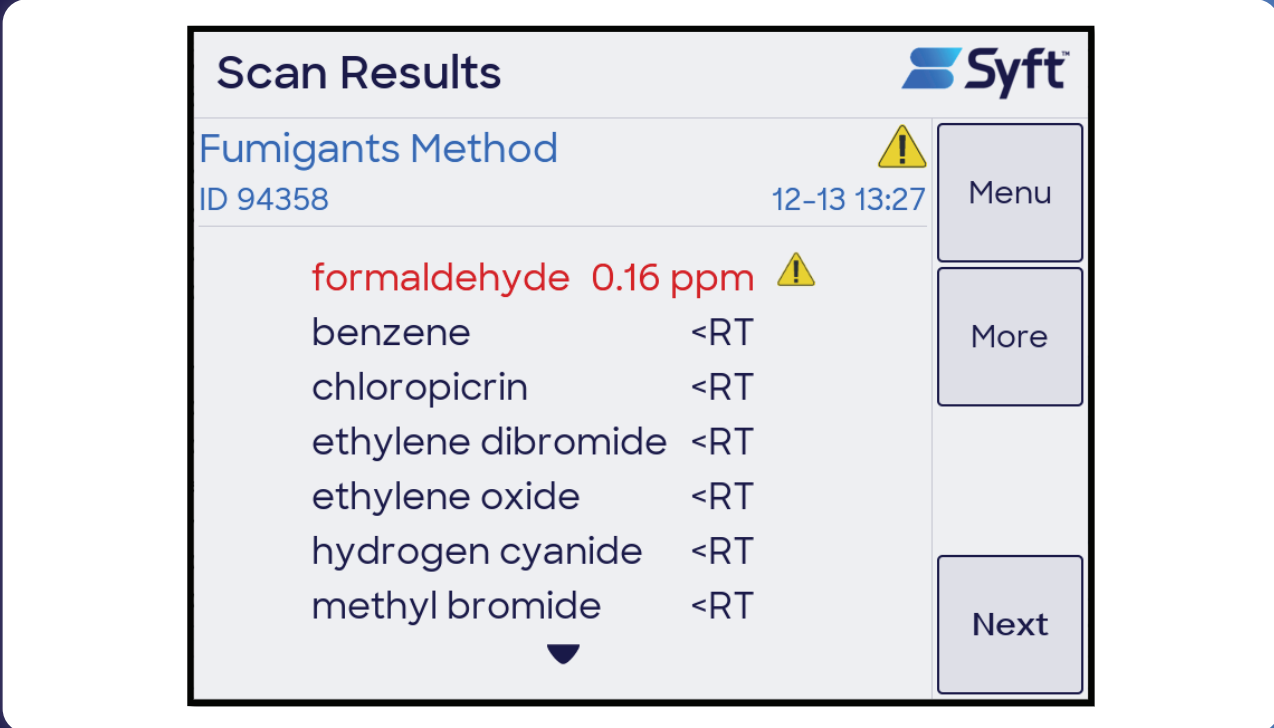
Sample Analysis

Sample analysis is as simple as attaching your sample bag to the inlet, selecting the relevant method, scanning the bar code (where relevant), and hitting the scan button. The progress bar will indicate how much time remains before getting the desired results.



Reporting

When the scan is complete, the LCD screen will show the results. The user can press the Up or Down icon to display the full range of compounds analyzed. Compounds measured above their reporting threshold concentration will be displayed at the top of the results page in red. Safety thresholds can be customized according to local regulations.





About Syft: the trusted partner for real-time volatile analysis solutions.

Syft was founded in 2002 and has over 150 professionals in 7 countries. Syft is considered the world leader in real-time, direct injection mass spectrometry with more than 20 years of SIFT-MS expertise. Syft instruments support a broad range of industries worldwide including semiconductor manufacturing, pharma and CDMO, environmental protection, automotive, food, flavor and fragrances, and many more.

Customer Support offices are located throughout the world offering 24/7 service and support including those in New Zealand, Korea, Taiwan, Singapore, Germany and the U.S. Factory trained field support engineers and field application scientists are staffed in each Customer Support office. Regional service and application development support is available to assist with expanding your analyte compound list of interest.

Selected performance attributes

Compound/class	Specific Compound Examples								
	Benzene	Chloropicrin	Ethylene Dibromide	Ethylene Oxide	Formaldehyde	Hydrogen Cyanide	Methyl Bromide	Phosphine	Sulfuryl Fluoride
Limit of detection (ppbV*)	<1	<1	<2	<20	<1	<10	<20	<2	<20
Compound coverage	900+ compound library of VOCs and inorganics								
Dynamic range	LOD - 100 ppm (upper limit can be compound dependent)								
Sample flow	Typically 33 mL/min of scan								
Measuring principle	Selected Ion Flow Tube Mass Spectrometry (SIFT-MS)								
Linearity	R ² > 0.99								
Selectivity	Real-time speciation using ion-molecule reactivity (including isobars and isomers)								
Mass range	10 - 400 amu								
Ambient temperature	15 - 35 °C								
Ambient humidity	0 - 95% non-condensing								
Consumables**	>99.999% N ₂ at 160 mL/min while scanning. DI water at 200 mL per 6 months >99.999% He at 360 mL/min while scanning. DI water at 200 mL per 6 months								
Instrument validation	Recommended daily								
Maintenance	Twice yearly								
Sample ports	Up to 14								
Electrical	220 VAC, 50/60 Hz, <16 A (UPS/transformer available)								
Size (L x W x H)	0.906 m X 0.755 m X 0.957 m (screen flat)								
Output signal	Data saved to file on onboard hard drive. XML, CSV available. MODBUS TCP/IP. Laptop interface with data visualization software.								
Country of manufacture	New Zealand								

*3 of a 15 second scan using N₂

**Syft can advise which carrier gas is most appropriate for intended use



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Simply. Faster.

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