

## TECHNICAL INSERT

Item No	571	ChemDisk™ Monitor for	Prepared by	VHL
Edition	06/20/2014	Aldehydes	Approved by	CRM

The ChemDisk™ Personal Monitor is designed to measure exposure to chemicals in order to demonstrate workplace compliance with Permissible Exposure Limits (PELs) and Short Term Exposure Limits (STELs) defined by the Occupational Safety and Health Act of 1970 and Title 29 Code of Federal Regulations.

This **Technical Insert** contains product specific information on use and storage.

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<b>Sampling Medium:</b>	Fiberglass coated with 2,4-dinitrophenylhydrazine (DNPH)
<b>Analytes Sampled:</b>	Formaldehyde, Glutaraldehyde, and o-Phthalaldehyde; See <i>AT Labs IH Sampling Guide</i> for other aldehydes
<b>Analytical Method:</b>	Modified OSHA 1007; Modified OSHA 64; Modified EPA TO-11: Desorption in acetonitrile; analysis of the DNPH derivative by high performance liquid chromatography (HPLC) with UV/VIS detector
<b>Recommended Sampling Time:</b>	Formaldehyde: PEL = 8 hrs or full shift; STEL = 15 min Glutaraldehyde: Ceiling = 15 min; IAQ = 24-72 hrs o-Phthalaldehyde: STEL = 15 min Functional range: 15 minutes - 72 hours
<b>Recommended Holding Time:</b>	Monitors must be received by Lab <b>within four (4) weeks after sampling.</b>
<b>Sample Capacity:</b>	Formaldehyde: 12.5 ppm for 8 hour sample (100 ppm-hrs )
<b>Reporting Limit (RL):</b>	Formaldehyde: 0.33 ppm for 15 min, 0.010 ppm for 8 hrs (0.080 ppm-hrs); Glutaraldehyde: 0.020 ppm for 15 min (0.0050 ppm-hrs); o-Phthalaldehyde: 0.020 ppm for 15 min (0.0050 ppm-hrs)
<b>Sampling Rate (SR):</b>	Formaldehyde: 16.2 mL/min; Glutaraldehyde: 7.24 mL/min; o-Phthalaldehyde: 6.18 mL/min
<b>Interfering Substance(s):</b>	Other aldehydes and ketones do not interfere if HPLC resolution is adequate.
<b>Effect of Temperature:</b>	Effect on result $\leq 5\%$ within 0 - 50°C (32 - 122°F).
<b>Effect of Humidity:</b>	Functions as claimed within 20 - 80% RH.
<b>Accuracy (MTE):</b>	Meets or exceeds OSHA requirements for accuracy: Maximum Total Error (MTE) $\leq 25\%$ at PEL; $\leq 25\%$ at STEL and action level.
<b>Storage Conditions:</b>	Store under <b>refrigerated conditions</b> for maximum shelf life.  Do Not Use after Expiration Date printed on pouch.
<b>IMPORTANT:</b>	Warranty valid only if <b>Instructions for Use</b> have been followed.
<b>WARNING:</b>	Wash affected area thoroughly if Sampling Medium is contacted.

For detailed directions, see **Instructions for Use** included in each package of Monitors.

For information about each analyte which can be sampled, refer to *AT Labs IH Sampling Guide* at [www.assaytech.com](http://www.assaytech.com) or call **TOLL FREE NUMBER 1-800-833-1258**