Supelco®
Analytical Products

MERCK

DSD-DNPH Passive Sampling Device

High-Efficiency Diffusive Sampler for the Determination of Aldehydes and Ketones in Indoor and Ambient Air

The DSD devices are radial in design and are Ready-to-Use (RTU) right out of the packaging. To sample, remove the outer storage container from the device, connect to an adaptor/clip, and take your sample. When sampling is complete, put the DSD-DNPH sampler back to its original storage container with the air sampling data to the laboratory for analysis.

Advantages of DSD Samplers:

- Ready-to-Use (RTU)
- Streamlined radial design delivers fast sampling rates 2-3x faster than badge type samplers
- Designed for sampling 24 hours
- Select devices can sample for 7 days or longer
- Versatile for use in indoor air, ambient air and personal sampling

DSD-DNPH Passive Sampler

It contains silica gel coated with 2,4-dinitrophenyl-hydrazine (DNPH) which acts as the aldehyde selective adsorbent. Aldehydes and ketones diffuse through the membrane reacting with DNPH to form stable derivatives. The DNPH-derivatives are then eluted with acetonitrile and analyzed by high performance liquid chromatography (HPLC). DSD-DNPH is fully validated and specified in OSHA method 1007 for passive sampling of formaldehyde.

Product Description	Pkg. Qty	Cat. No.
DSD-DNPH Passive Sampler	10	**28221-U**

Accessories for use with In-Device Elution DSD Devices

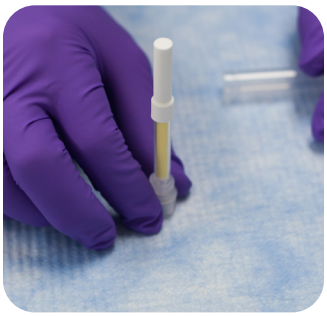
For use with DSD-DNPH, DSD-BPE/DNPH, DSD-TEA

Product Description	Pkg. Qty	Cat. No.
Perforated Protective Cover	10	**28222-U**
Lapel/Pen Clip	6	**21019-U**
Plastic Color-Coded Cap Insert	100	**000J004**

At the Laboratory

Simple Sample Preparation with In-Device Elution

This design of the DSD In-Device Elution samplers are comprised of a porous polyethylene tube which acts as the diffusive membrane and controls the sampling rate of the analytes of interest into the selective adsorbent bed packed inside. And to this diffusive membrane is attached a small propylene syringe body that is used for the elution of analytes from the adsorbent after sampling into the sampling tube. The benefits of this device design is that it reduces sample preparation time and reduces waste in that it's an all-in one device from the field to the laboratory.



In-Device Elution Prep

Invert adsorbent into the integrated syringe barrel

Single Sample Elution w/6 mL Syringe Barrel (Cat. No. 57242)

Single Sample Elution w/Visi-1 (Cat. No. 57080-U)

Multiple Sample Elution w/Vacuum Manifold, 12-Port (Cat. No 57044)

Optional Accessories for Use of Sample Preparation for In-Device Dilution

Product Description	Quantity	Cat. No.
Visiprep™ DL 12-Port Vacuum Manifold	1	**57044**
Visiprep™ DL 24-Port Vacuum Manifold	1	**57265**
Visi-1 Sample Processor	1	**57080-U**
6 mL Polypropylene Reservoir Tube	30	**57242**
Female Luer Fitting for 5/32 in Tubing	20	**28224-U**

Certified Reference Materials (1 mL ampuole)

Product Description	Cat. No.
TO-11/IP-6A Aldehyde/Ketone-DNPH Mix	**CRM47285**
Formaldehyde-DNPH, 1000 µg/ML	**CRM47177**
Aldehyde-DNPH, 1000 µg/ML	**CRM47340**
Acetone-DNPH, 1000 µg/ML	**CRM47341**
Acrolein-DNPH, 1000 µg/ML	**CRM47342**
Propionaldehyde-DNPH, 1000 µg/ML	**CRM47181**

Recommended Analytical HPLC Columns

15 cm x 4.6 mm I.D., 2.7 µm

Product Description	Cat. No.
Ascentis® Express C18	**53829-U**
Ascentis® Express RP-Amide	**53931-U**

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