

Air Monitoring Guide LpDNPH

Please read carefully before sampling



CASSEN

CASSEN Testing Laboratories

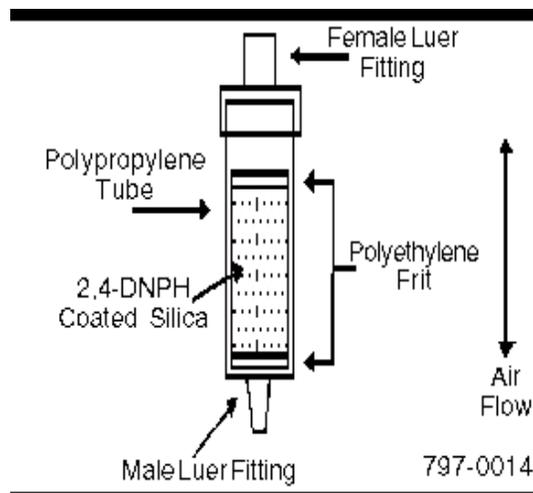
Telephone: 416 679 9663

Toll Free: 1 866 423 3001

www.cassen.ca

Introduction

LpDNPH S10L cartridge is an air sampling device for carbonyls (example: formaldehyde) in indoor, outdoor, and industrial environments. A silica adsorbent is coated with 2,4-dinitrophenylhydrazine (2,4-DNPH) where carbonyls are trapped and converted to hydrazone derivatives. Acetonitrile is used to elute the derivatives from the cartridge and then analyzed by High Performance Liquid Chromatography (HPLC).



LpDNPH S10L Cartridge

Can be used at high sampling rates (1.5-2 L/min.) with personal sampling pumps

- High purity adsorbent for high accuracy in trace analysis
- Individually packed to maximize sample integrity

LpDNPH S10L Cartridge

LpDNPH S10L Cat. No. 505361-U Specifications

Adsorbent:	Chromatographic grade silica with 2,4-dinitrophenylhydrazine
Particle Size:	150-250 μm (60/100 mesh)
DNPH Loading:	0.29% (1 mg/cartridge)
Bed Weight:	Approx. 350 mg
Capacity:	Approx. 75 μg total carbonyls
Cartridge Length:	4.0 cm
Background (per cartridge):	<0.06 μg formaldehyde <0.15 μg acetaldehyde <0.38 μg acetone
Pressure Drop:	<7kPa at 1.5 L/ min. (<28" water/<2.1" Mercury)
Storage:	Refrigerate (4 °C) and protect from light
Shelf Life:	12 months

Sampling Instructions

- 1) Connect one end of the cartridge to a sampling pump. (LpDNPH S10L cartridge can be used with air flow in both directions).
- 2) Collect the air sample at a flow rate of up to **2 L/min**. (To avoid sample breakthrough, total carbonyls collected should not exceed 75 µg.)
- 3) After sampling, cap both ends **immediately** and place each individual cartridge in the foil bags provided.
- 4) Include one field blank from the same product lot with each batch of samples.
- 5) Identify and record the following on sample labels and on the Chain of Custody:

- 1) Sample Name/ID**
- 2) Date sampled**
- 3) Volume Sampled**
- 4) Analysis requested**

- 6) Please store and ship LpDNPH cartridges at **4 °C** and protect from light when possible.

NOTE: Handle cartridges with care to minimize contamination. Ozone is a known negative interference when sampling for carbonyls. If you suspect the presence of ozone, use an ozone scrubber as described in methodology.