



## Instructions for Catalog # 1114 Air and Emissions Aldehydes & Ketones on Sorbent

Revision 031326

### Description:

- This standard is packaged in a 2 mL flame-sealed ampule containing approximately 2 mL of standard concentrate and a silica gel sorbent tube coated with 2,4-dinitrophenylhydrazine (2,4-DNPH).
- This concentrate is not preserved.
- The solvent for this concentrate is Acetonitrile.
- The concentrate and sorbent tube should be stored at  $4\pm 2^{\circ}\text{C}$ .
- This product is intended to be used as a quality control check of the entire analytical process for the analytes/matrix included in the standard.
- The dilution instructions below represent the minimum suggested sample size for this product. Using a smaller sample size may invalidate the assigned value and/or uncertainty shown on the certificate of analysis.
- The certified values apply to the diluted sample after following the stated dilution instructions.

### Helpful Hints:

- This standard has been prepared as a concentrate intended for spiking onto the sorbent tube supplied and must be prepared prior to analysis.
- The concentrate contains the underivatized Aldehydes & Ketones analytes; the instruction must be followed to allow the derivatization process to occur. **This includes the addition of phosphoric acid immediately prior to the addition of the concentrate.**
- The elution volume of acetonitrile used during desorption for the size of sorbent tube supplied is 5 mL.
- This standard should be analyzed as soon as possible after the sample is prepared using the instruction.

### Instructions:

1. Remove the sorbent tube from the foil bag.
2. Remove both caps from the sorbent tube.
3. Place the sorbent tube onto your desorption elution rack or apparatus.
4. Add 50 $\mu\text{L}$  of phosphoric acid, Analytical grade, to the upper glass frit on the sorbent tube. (Note: The aliquot will remain resting on the glass frit it will not seep into the coated silica gel below.)
5. Carefully snap the top off the Aldehydes & Ketones on Sorbent ampule.
6. Using a 250-microliter syringe, transfer 200  $\mu\text{L}$  of the concentrate into the sorbent on top of the acid aliquot.
7. Allow the concentrate/acid mixture to wet the 2,4-DNPH coated silica gel sorbent.
8. Elute the sorbent tube following your normal procedures and proceed with analysis.

### Safety:

ERA products may be hazardous and are intended for use by professional laboratory personnel trained in the competent handling of such materials. Responsibility for the safe use of these products rests entirely with the buyer and/or user. Safety Data Sheets (SDS) for all ERA products are available through our website [www.eraqc.com](http://www.eraqc.com).