

# TheReporter

Reprinted from Volume 16, No. 1, 1997

T297021

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If you have questions about applying methodology described in this article to a current application, please contact our technical service chemists.

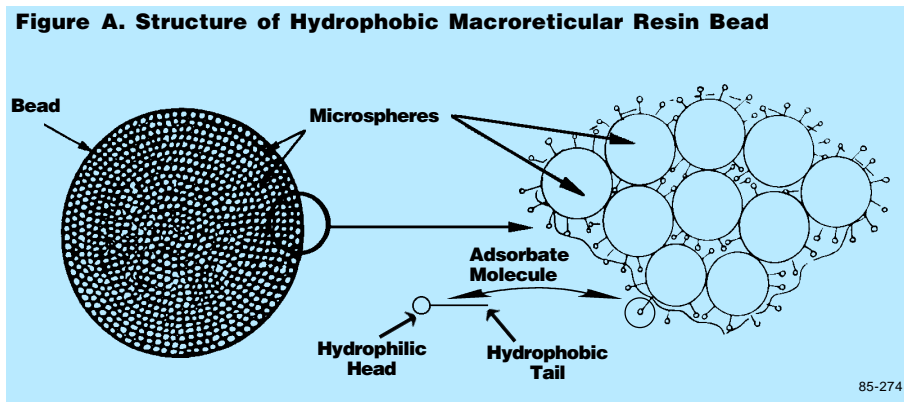


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# Versatile Amberlite XAD-2 Resin Now Available

K. Pardue, Liquid Separations Group, Supelco, Bellefonte, PA, USA

**Figure A. Structure of Hydrophobic Macroreticular Resin Bead**



The popular hydrophobic adsorbent Amberlite® XAD®-2 now is manufactured exclusively by Supelco. Amberlite XAD-2 resin is a macroreticular, styrene-divinylbenzene copolymer, nonionic bead. Each bead is an agglomeration of microspheres (Figure A). This sponge-like structure offers excellent physical and chemical stability. The discrete pores allow rapid mass transfer of analytes, and the 20-60 mesh size ensures very little, if any, back pressure during use. The hydrophobic chemical nature of the resin leads to reversed phase analyses. A summary of In these

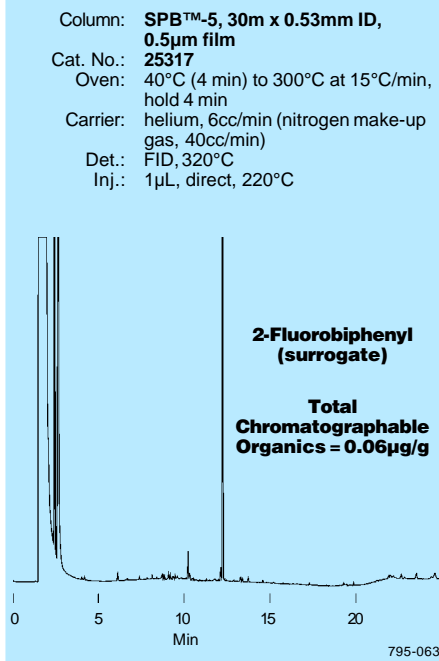
applications, the resin offers high capacity, can be used with aqueous or organic solvent-based solutions, and is relatively inexpensive.

A popular application for Amberlite XAD-2 resin, stack gas sampling, requires extensive cleaning of the resin. A dry, high-purity version of this adsorbent, Supelpak™-2 (Figure B), is extensively used

**Table 1. Characteristics of Amberlite XAD-2 Resin**

Chemical Nature:	polyaromatic
Approx. Pore Volume:	0.65 mL/g
True Wet Density:	1.02g/mL
Skeletal Density:	1.08g/mL
Mean Surface Area:	300m <sup>2</sup> /g
Mean Pore Diam.:	90Å
Mesh Size:	20-60

**Figure B. Negligible Background in Supelpak-2 Adsorbent**



for airborne semivolatile analysis, particularly polynuclear aromatic hydrocarbons (PAHs) and dioxins. Source testing, as well as ambient and indoor air monitoring, can be performed with Supelpak-2 material.

A wet, specially cleaned version of Amberlite XAD-2 resin, Supelpak-2B, is used for determining polychlorinated biphenyls (PCBs) in water according to the Great Lakes National Program Office.

Never pack a column full with Amberlite XAD-2 since the resin will shrink and swell during aqueous/organic mobile phase cycles. Concentrated, strong oxidizers such as HNO<sub>3</sub> should be avoided.

**Ordering Information:**

Description	Cat. No.
<b>Amberlite XAD-2 Resin</b>	
100g	20275
500g	10357
<b>Supelpak-2 Resin</b>	
100g	20279
<b>Supelpak-2B Resin</b>	
100g	13670

These products contain media manufactured by Supelco, under license from the trademark owner.

Custom orders for larger quantities, different mesh sizes, and/or cleaning procedures can be accommodated.

**Trademarks**

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 SPB, Supelpak — Sigma-Aldrich Co.



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