

RENSA® 101

Selective Removal of a Wide Range of Pesticides from Natural Products, Such as Citrus Oils

Introduction

RENSA® 101 is a polymeric resin material based on silver ion chromatography (Figure 1) whose surface contains hydrophobic moieties along with silver ions bound to a sulfonic acid (Figure 2).

Table 1. Material properties of RENSAs® 101.

RENSA® 101 Properties	
Polymer backbone	Styrenic
Crosslinking degree	~ 50%
Functionality	Silver bound to sulfonate ligand
Average particle size	250 μm (in water)
Pore size	~ 30 \AA
Surface area	~ 400 m^2/g
Pore volume	~ 0.3 ml/g
Typical swelling	100–200% in organics
Density	0.6 g/ml
Ligand density	0.8 mmol/g

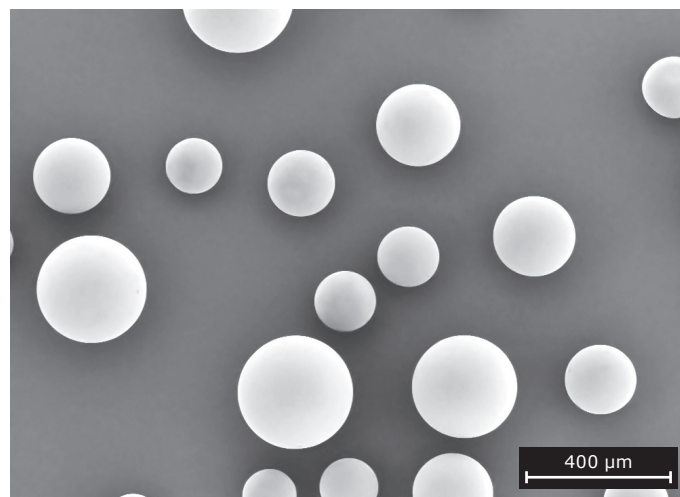


Figure 1. SEM picture of RENSAs® 101, average particle size: 250 μm .

Features

- » Novel polymeric silver ion chromatography resin
- » Selectivity for unsaturated compounds
- » Optimized for small molecules and oligomers
- » Pressure-stable material
- » Operational in chromatography columns
- » Appropriate for process scale purifications

Typical Applications

RENSAs® 101 can be used for compounds able to reversibly interact with the bound silver ligand (silver ion chromatography or argentation chromatography). Typical examples are unsaturated and also aromatic compounds such as fatty acids or lipids under non-aqueous conditions. The material is also able to function as a selective ligand for certain compound types such as organothiophosphates.

The resin is stable to high mechanical pressure and can be both used as a chromatographic packing material and as a batch adsorbent.

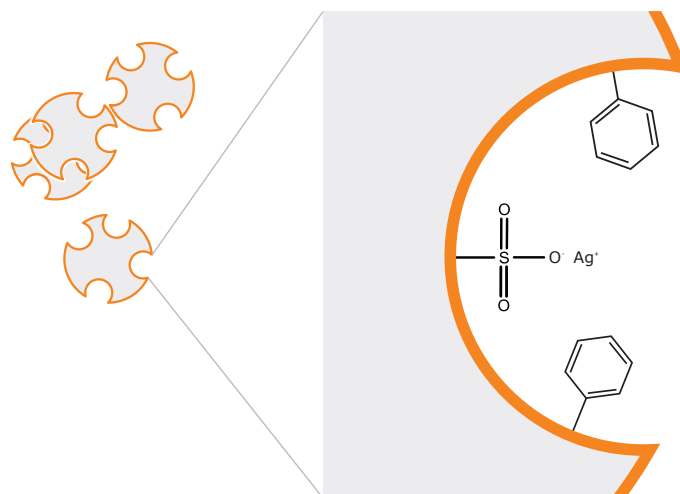


Figure 2. Schematic representation of the surface of RENSAs® 101 where a silver ion bound to a sulfonic acid group is positioned in a cavity surrounded by hydrophobic moieties.

Formats and Quantities

RENSA® 101 is available as bulk material in gram and kilogram levels. Larger quantities are available on request.

Ordering Information

Part Number	Description	Quantity
95002-0010	RENSA® 101	10 g
95002-0100	RENSA® 101	100 g
95002-1000	RENSA® 101	1 kg

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