

PRODUCT DATA SHEET

**AMBERSEP™ 920U SO<sub>4</sub>**  
**Industrial Grade Strong Base Anion Exchanger**

AMBERSEP 920U SO<sub>4</sub> is a strongly basic, macroreticular anion exchange resin. It is a true, macroporous network which differs completely from conventional gel type resins, and provides an outstanding osmotic and physical stability as well as excellent kinetics.

The crosslinked polystyrenic matrix makes this resin particularly stable mechanically. AMBERSEP 920U SO<sub>4</sub> has been specially developed for the extraction of uranium from ore, both for in-situ leaching and RIP processes.

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**PROPERTIES**

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Matrix _____	Macroreticular crosslinked polystyrene
Physical form _____	Opaque beads
Ionic form as shipped _____	Sulfate
Total exchange capacity _____	≥ 1.0 eq/L (SO <sub>4</sub> <sup>2-</sup> form)
Moisture holding capacity _____	48 to 60 % (SO <sub>4</sub> <sup>2-</sup> form)
Shipping weight _____	735 g/L
Harmonic mean size _____	0.750 - 0.950 mm
Uniformity coefficient _____	≤ 1.50
Fine contents _____	< 0.710 mm : 5.0 %
Coarse beads _____	> 1.180 mm : 4.0 %
Maximum reversible swelling _____	Cl <sup>-</sup> → SO <sub>4</sub> <sup>2-</sup> : 5 % approximately.

*Test methods are available on request*

## HYDRAULIC CHARACTERISTICS

AMBERSEP™ 920U SO<sub>4</sub> gives a pressure drop of about 8 kPa per m bed depth (0.35 psi/ft) at a flow rate of 10 m/h (4.1 gpm/ft<sup>2</sup>) at 15°C (60 °F).

A backwash flow rate of 11 m/h (4.5 gpm/ft<sup>2</sup>) gives a bed expansion of about 70 % at 15°C (60 °F) in water.

Pressure drop data are valid at the start of the service run with a clear water and a correctly classified bed.

These data are valid for water treatment and have to be corrected according to the solution to be treated.

## LIMITS OF USE

Rohm and Haas manufactures special resins for food processing and potable water applications. As governmental regulations vary from country to country, it is recommended that potential users seek advice from their Rohm and Haas representative in order to determine the best resin choice and optimum operating conditions.

All our products are produced in ISO 9001 certified manufacturing facilities.

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Ion exchange resins and polymeric adsorbents, as produced, contain by-products resulting from the manufacturing process. The user must determine the extent to which organic by-products must be removed for any particular use and establish techniques to assure that the appropriate level of purity is achieved for that use. The user must ensure compliance with all prudent safety standards and regulatory requirements governing the application. Except where specifically otherwise stated, Rohm and Haas Company does not recommend its ion exchange resins or polymeric adsorbents, as supplied, as being suitable or appropriately pure for any particular use. Consult your Rohm and Haas technical representative for further information. Acidic and basic regenerant solutions are corrosive and should be handled in a manner that will prevent eye and skin contact. Nitric acid and other strong oxidising agents can cause explosive type reactions when mixed with Ion Exchange resins. Proper design of process equipment to prevent rapid buildup of pressure is necessary if use of an oxidising agent such as nitric acid is contemplated. Before using strong oxidising agents in contact with Ion Exchange Resins, consult sources knowledgeable in the handling of these materials.

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