

Aldex Strong Base Anion Series

NSR Strong Base Anion Macroporous Nitrate Selective Resin

Aldex NSR is a strong base anion exchange resin which is **highly selective for nitrates over sulfates and other ions**. Aldex NSR has a unique functional group that **eliminates nitrate dumping even in the presence of high sulfates**. Its resistance to nitrate dumping makes Aldex NSR superior in nitrate removal applications where sulfates are present compared to standard gellular or macroporous strong base anion resins.

Physical Chemical Properties

Polymer Structure:	S-DVB resin
Appearance:	Opaque beads
Functional Group:	N(CH ₃) ₃
Ionic Form as shipped:	Chloride
Total Capacity, Cl ⁻ form:	0.85 to .95 eq/l
Moisture Content, Cl ⁻ form:	51 to 57%
Mean Diameter:	600 ± 100 µm
Uniformity Coefficient (max.):	1.6 to 1.8
Specific Gravity:	1.06 to 1.08
Shipping Weight (approx.):	670 to 710 g/l (42-44 lbs/ft ³)
Temp Limit, Cl ⁻ Form:	100°C
pH limits, Stability:	0 to 14

Typical Operating Conditions

Maximum Operating Temp.:	175°F (80°C)
Resin bed Depth:	24"(600 mm) minimum
Recommended Service Flow:	1 to 4 gpm/ft ³
Backwash Expansion:	50 to 70%
Backwash Expansion Flow Rate at 77°F(25°C):	1.6 to 2.5 gpm/ft ²
Regenerant:	NaCl
Regeneration level:	8 to 10 lbs/cu.ft.
Regenerant concentration:	8 to 12%
Regeneration time:	20 to 60 minutes
Slow rinse flow rate:	At regeneration flow rate
Fast rinse flow rate:	At service flow rate
Rinse Volume:	15 to 50 gal/ft ³
<i>Influent Limitations</i>	
Free Chlorine:	Not traceable
Turbidity:	Less than 2 N.T.U
Iron and Heavy metals:	Less than 0.1 ppm

Applications

Aldex NSR is often selected when chromatographic dumping of nitrates must be avoided at all cost. Due to its unique functional group Aldex NSR will provide the highest operating capacity possible of any selective resin. Further, water processed using Aldex NSR will be able to meet EC as well as North American guidelines for potable water.

NSR Features

Very Low Color, Taste or Odor

Aldex NSR meets the requirements for paragraph 173.25 of the Food Additive Regulation of the U.S. Food and Drug Administration.

Long Life

Strong and durable beads insure long service life.

Reliability

Aldex Chemical has over 34 years of field usage by thousands of customers demonstrates the reliability of Aldex ion exchange resins, zeolites and other water treatment media.

Safety Information

A material safety data sheet is available for Aldex NSR. Copies can be obtained from Aldex Chemical Co., LTD. Aldex NSR is not a hazardous product and is not WHMIS controlled.

Caution: Acidic and basic regenerant solutions are corrosive and should be handled in a manner that will prevent eye and skin contact. Before using strong oxidizing agents in contact with ion exchange resin, consult sources knowledgeable in the handling of these materials.

Aldex Chemical Company, Ltd.

630 Laurent Street • Granby QC Canada J2G 8V1

450 372 8844 • Fax 450 372 2566 • info@aldexchemical.com



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aldexchemical.com