Aldex Mixed Bed Series

MB-1 Mixed Bed Resin

*Aldex MB-1 is a **highly regenerated mixed bed of a Type 1 strong base, gel anion exchange resin** and a strong acid sulfonated polystyrene cation exchange resin, **designed to provide ultra-high purity water**. The special blend of Type 1 anion exchange resins with nuclear grade cation exchange resins ensure high resistance, low TOC extractables and excellent regenerable capacities for inorganic versus organic ions. Aldex MB-1 is provided in a 60:40 anion to cation ratio (by volume).*

Physical Chemical Properties

Polymer Structure:	
Cation	Hydrogen form sulfonated polystyrene copolymer
Anion	Hydroxyl form strong base alkyl quaternary ammonium polystyrene copolymer
Ionic Form as Shipped:	Hydrogen / Hydroxide
Physical Form:	Spherical beads
Particle Size Distribution:	
16 mesh (U.S. Std.)	2% maximum
40 mesh	2% maximum
pH Range:	0 to 14
Moisture Content	60% maximum
Conversion to ionic Form:	
Cation - Hydrogen	99% minimum
Anion - Hydroxide	93% minimum
Chloride (Cl^-)	0.5% maximum
Carbonate (CO_3^{-2})	2% maximum
Sulfate (SO_4)	0.1% maximum
Shipping Weight:	43 lbs per cubic foot
Total Capacity:	
Cation (Na+ form)	1.9 meq/ml min.
Anion (Cl^- form)	1.3 meq/ml min.

Recommended Operating Conditions

Effluent Quality	Resin should provide effluent quality of 10-15 megohm but is dependent on many factors
Maximum Temperature:	
Regenerable	60°C
Non-regenerable	100°C
Slow Rinse (Displacement) Flow Rate:	2 to 10 US GPM per cubic foot

MB-1 Features

Very Low Metal Content

Special manufacturing conditions ensure very low metal content.

Elemental analysis, dry basis

Iron (Fe)	<100 ppm
Copper (Cu)	<50 ppm
Lead (Pb)	<50 ppm

Very Low TOC

Non solvent sulfonation and special manufacturing processes assure very low TOC leakage.

Uniform Particle Size

98% of all beads are in the minus 16 to plus 40 mesh range: giving a lower pressure drop while maintaining the superior kinetics of standard mesh size products.

Superior Physical Stability

90% plus sphericity and high crush strengths together with a very uniform particle size provide greater resistance to bead breakage while maintaining low pressure drop.

Safety Information

A material safety data sheet is available for Aldex MB-1. Copies can be obtained from Aldex Chemical Co., LTD. Aldex MB-1 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.

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