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DOWEX Ion Exchange Resins

Procedure for Acid Cleaning of Mixed Bed Resins

Acid treatment of a mixed bed is used to remove inorganic contaminants such as metals and also silica. It can, therefore, be applied to both cation and anion components in-situ.

The recommended procedure is as follows. The acid concentration should be increased gradually to avoid excessive osmotic stress to the resin:

- 1. Exhaust the mixed bed.
- 2. Pass upflow 1 bed volume 5 percent HCl solution contact time 30 minutes.
- 3. Pass upflow 1 bed volume 10 percent HCl solution contact time 30 minutes.
- 4. Leave to soak overnight with occasional air injection to facilitate contacting of the acid with the resins.
- 5. Displace/rinse the acid downflow with min. 5 bed volumes DI water.
- 6. Backwash the resins to separate and then regenerate as normal.
- 7. Repeat step 6 to ensure resins are properly separated and regenerated.

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WARNING: Oxidizing agents such as nitric acid attack organic ion exchange resins under certain conditions. This could lead to anything from slight resin degradation to a violent exothermic reaction (explosion). Before using strong oxidizing agents, consult sources knowledgeable in handling such materials.

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Published May 2002.

