

# SIR-110-MP

**PFAS & perchlorate selective, strong base anion resin, styrene/DVB macroporous, chloride form**

ResinTech SIR-110-MP is a chloride form PFAS, perchlorate, and nitrate selective macroporous strong base anion resin. Its unique functionality greatly increases the selectivity for nitrate while greatly decreasing the interference from sulfate ions. SIR-110-MP is recommended for the removal of perchlorate, nitrate, and some perfluorinated (PFAS) compounds.



## FEATURES & BENEFITS

- Highest Operating Capacity
- Low Sulfate Selectivity
- Superior Physical Stability
- Controlled Particle Size

## APPLICATIONS

- Cartridge Applications
- Iodide Removal
- Nitrate Removal
- Peractnetate Removal
- Perchlorate Removal
- PFAS Removal

|                            |                             |                        |                                    |
|----------------------------|-----------------------------|------------------------|------------------------------------|
| Polymer Matrix             | Styrene/DVB                 | Reversible Swelling    | Cl → No <sub>3</sub> -5 to -10%    |
| Polymer Type               | Macroporous                 | Uniformity             | Gaussian                           |
| Ionic Form (as shipped)    | Chloride (Cl <sup>-</sup> ) | Uniformity Coefficient | 1.60                               |
| Functional Group           | Tributylamine               | Capacity (meq/mL)      | 0.60                               |
| Physical Form              | Spherical Beads             | Moisture Retention (%) | 38 to 50                           |
| Particle Size US Mesh (µm) | 20 (841) to 50 (297)        | Shipping Weight        | 40 - 42 lbs/cu.ft. (641 - 673 g/L) |
| < 50 mesh (300 µm) %       | < 1%                        | Color                  | White to Tan                       |
| Minimum Sphericity (%)     | 95                          | Regenerable            | Regenerable                        |

SIR-110-MP

**SUGGESTED OPERATING CONDITIONS**

|                       |                  |                    |                            |
|-----------------------|------------------|--------------------|----------------------------|
| Maximum Temperature   | 250°F (121°C)    | Operating pH Range | 4.0 to 10.0                |
| Minimum Bed Depth     | 24 in. (61.0 cm) | Flow Rate          |                            |
| Maximum Pressure Loss | 20 psi (138 kPa) | Working Service    | 1-3 gpm/cu.ft. (8-24 BV/h) |

**PERCHLORATE REMOVAL**

ResinTech **SIR-110-MP** is ideal for single use PFAS and/ or perchlorate removal applications and is a cost-effective method to remove trace levels of these contaminants from water. These compounds are very strongly attracted to the ResinTech **SIR-110-MP**, so much so that regeneration is impractical or impossible. However, in most cases the ions can load to almost the full capacity of the resin, resulting in very long life and eliminating the need to regenerate and re-use the spent resin.

**NITRATE REMOVAL**

ResinTech **SIR-110-MP** can be used in the chloride form to remove nitrates as well as perchlorate from potable water. SIR-110-MP works exceptionally well in high TDS waters. When treating waters with high hardness the brine dilution and displacement waters should be softened and a low hardness salt used to prevent scaling due to calcium sulfate formation during regeneration.

**IODIDE REMOVAL**

ResinTech **SIR-110-MP** has much higher selectivity for iodide than other strong base anion resins (about 7 to 10 times higher). This high selectivity allows for single use removal of iodide against rather high concentrations of other ions with reasonable throughput capacity. Regeneration, although possible, is complicated, and cannot be accomplished with salt or other common regenerants.

**REGENERATION DETAILS**

|                         |                                  |                        |                            |
|-------------------------|----------------------------------|------------------------|----------------------------|
| Salt Cycle (NaCl)       | 10 to 15%                        | Displacement Flow Rate | Same as dilution water     |
| Regenerant Level        | 3-10 lbs/cu.ft. (48.1-160.2 g/L) | Displacement Volume    | 10-15 gals/cu.ft. (1-2 BV) |
| Regenerant Flow Rate    | 0.25-1.0 gpm/cu.ft. (2-8 BV/h)   | Rinse Flow Rate        | Same as service flow       |
| Regenerant Contact Time | > 30 minutes                     | Rinse Volume           | 35-60 gals/cu.ft. (5-8 BV) |

NaCl Regeneration applicable for Nitrate Removal applications only



**PACKAGING****Standard**

1 cu.ft. Bag | 7 cu.ft. Drum

42 cu.ft. Supersack | 5 cu.ft. Drum

**Metric**

1000L Supersack | 140L Drum

**SAFETY DATA SHEETS (SDS)**

Safety Data Sheets (SDS) are available for all products on the ResinTech website. They contain important health and safety information that may be needed to protect your employees and customers from any known health and safety hazards associated with our products. We recommend that you secure and study the pertinent MSDS for our products and any other products being used.

These suggestions and data are based on information we believe to be reliable. They are offered in good faith.

However we do not make any guarantee or warranty. We caution against using these products in an unsafe manner or in violation of any patents; further we assume no liability for the consequences of any such actions.

Safety Data Sheets (SDS) are available at [resintech.com](https://resintech.com)

Page 3 of 3

Last Update: 10-Apr-26

