



## Product Information

**AMBERLITE MB-150**  
**Sigma Prod. No. A5710**

**CAS NO.:** 100915-96-6

Amberlite MB-150 is an ionically equilibrated mixed bed resin. This resin is ready for use as supplied; it is a mixture of a strongly acidic cation resin and a strongly basic, type 1 anion exchange resin. The product is intended to be a direct replacement for Amberlite MB-1A, which was a mixture of the ion exchange resins IRA-400 (OH<sup>-</sup>) and IR-120 (H<sup>+</sup>). (IR-120 (H<sup>+</sup>) was discontinued. The Amberlite resins are products of Rohm and Haas Company, which supplied the following information about this product.

### PHYSICAL CHARACTERISTICS:

Physical form: spherical beads in a moist, fully hydrated condition

Ionic form, as shipped: hydrogen/hydroxide

Cation to anion equivalent ratio: 1/1

Volumetric composition: 40% cation/60% anion

Volumetric capacity: 12 kg/cu ft

Moisture content, maximum: 60% (approximate)

Shipping weight: 43 lb/cu ft

Particle size: Effective size, 0.55 mm (approximate);

Uniformity coefficient, 1.7 maximum;

Fines content, 0.4% (approximate) through 50 mesh

US Standard Screen;

Screen grading (wet): 16-50 mesh (US Standard Screen)

Chemical stability: Insoluble in water, dilute solutions of acids or bases, insoluble in common solvents.

### SUGGESTED OPERATING CONDITIONS:

pH range: 0-14

Maximum operating temperature: 140°F

Minimum bed depth: 24 inches

Service flow rate: 2-5 gallons/min/cu ft

Regenerate: cation - HCl or sulfuric acid; anion - NaOH

### OPERATING CAPACITY:

Amberlite MB-150 will exhibit a nominal operating capacity of 12 kg/cu ft with 80% of the capacity producing water quality above 10 megaohm.

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**REGENERATION:**

If required, Amberlite MB-150 resin can be regenerated after exhaustion. The resin mixture must be separated into its parts by backwashing. The cation component can be regenerated with acid of the proper concentration, the anion component regenerated with sodium hydroxide solution.

**CAUTION:**

Acidic and basic regenerant solutions are corrosive and should be handled in a manner that will prevent eye and skin contact. In addition, the hazards of other organic solvents should be recognized and steps taken to control exposure. Nitric acid and other strong oxidizing 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 oxidizing agent such as nitric acid is contemplated. Before using strong oxidizing agents in contact with ion exchange resins, consult sources knowledgeable in the handling of these materials.

**NOTE:**

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.

**Sigma warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.**