

# MBD-NANO-UPS

Mixed bed resin, styrene/DVB gel, ultra high-purity, uniform particle size, hydrogen & hydroxide form

ResinTech MBD-NANO-UPS is a uniform particle size mixed bed resin. It is comprised of a 2:3 volumetric mixture of a dark-colored hydrogen form cation resin and a hydroxide form type 1 strong base anion resin. The NANO grade means it has been functionally tested to produce >18 megohm resistivity and under 2 ppb of TOC. MBD-NANO-UPS is intended for use in E-11 water applications requiring TOC of no more than 2 ppb and metals certification.



## FEATURES & BENEFITS

- Rapid rinse to quality
- Uniform particle size
- 18.2 megohm resistivity
- Certified performance testing
- Cation and anion components available separately
- Special packaging available to extend shelf life

## APPLICATIONS

- Portable Exchange Deionization (PEDI)
- Single Use Applications



REACH Registered

Conforms to §21CFR173.25 of the USFDA Food Additives Regulations

MBD-NANO-UPS

Polymer Matrix	Styrene/DVB	Reversible Swelling	12 to 17% (H+/OH- → Na+/Cl-)
Polymer Type	Gel	Uniformity	UPS
Component(s)	60% SBG1P-OH,40% CG8-H-BL	Uniformity Coefficient	1.20
Ionic Form (as shipped)	Hydrogen & Hydroxide (H <sup>+</sup> / OH <sup>-</sup> )	Capacity (meq/mL)	0.60
Physical Form	Spherical Beads	Moisture Retention (%)	53 to 62
Particle Size US Mesh (µm)	16 (1190) to 50 (297)	Shipping Weight	42 - 44 lbs/cu.ft. (673 - 705 g/L)
< 50 mesh (300 µm) %	< 1%	Color	Amber Dark Brown to Black

**SUGGESTED OPERATING CONDITIONS**

Maximum Temperature	180°F (82°C)	Flow Rate	
Minimum Bed Depth	24 in. (61.0 cm)	Working Service	1-5 gpm/cu.ft. (8-40 BV/h)
Maximum Pressure Loss	25 psi (172 kPa)	Polishing	3-15 gpm/cu.ft. (24-120 BV/h)
Operating pH Range	2.0 to 12.0		



**MAXIMUM IMPURITIES**

MBD-NANO uses proprietary production techniques to ensure the lowest levels of inorganic cations and anions on the resin.

**Metallic Impurities (moist basis)**

Sodium (Na) ppm	< 40
Iron (Fe) ppm	< 50
Copper (Cu) ppm	< 10
Aluminum (Al) ppm	< 30
Calcium (Ca) ppm	< 30
Magnesium (Mg) ppm	< 30
Heavy metals (Pb) ppm	< 10

**Anionic Impurities**

Equivalent percent Chloride (% Cl)	< 0.2
Equivalent percent Sulfate (% SO4)	< 0.2
Equivalent percent Hydroxide (% OH)	> 95

**Leachable TOC (total organic carbon)**

BV's rinse (at 0.5 BV/min)	(Max ppb TOC)
25	25
50	5
100	1

Lot certification is available and is provided when specified in purchase agreement.

**PACKAGING**

**Standard**

7 cu.ft. Drum | 42 cu.ft. Supersack  
 1 cu.ft. Bag | 5 cu.ft. Drum

**Metric**

25L Bag | 140L Drum

**COMPONENT MEDIA**

60% SBG1P-OH,40% CG8-H-BL

**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://www.resintech.com)

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