

Brine Purification & Heavy Metal Removal

DOSHION DCHR 71 is a macroporous type resin having special chelating iminodiacetate functional group. The resin has excellent selectivity for alkaline earth and heavy metal cations. Due to special functional group and excellent physio-chemical properties, the resin is suitable for use in following applications.

Brine Purification in Chloro-Akali Industries

The trace of alkaline earth metals are removed by **Doshion DCHR 71**, thus increasing the performance and life of membrane cells, increasing the production capacity of the plant.

Heavy Metal removal from neutralized complex waste waters

Doshion DCHR 71 removes heavy metals from treated waste water in the following order:

Copper > Vanadium > Uranium > Lead > Nickel > Zinc > Cadmium > Iron (II) > Beryllium > Manganese > Calcium > Magnesium > Strontium > Barium > Sodium

Properties	
Matrix	Polystyrene Macroporous
Functional group	Iminodiacetic Acid
Ionic Form	Na ⁺ - Sodium
Physical Form	Beads
Particle size (mm)	0.40 – 1.25
Moisture Content %	54-60 by wt. (Na ⁺ form)
Total Exchange Capacity (meq/ ml) (min)	2.9 Na ⁺ Form
Bulk Density / Shipping Weight (gm/L)	740 – 750 Na ⁺ Form
Operating pH Range	0 - 14
Density	1.15 to 1.18
Volume change, Na to H	- 40%
Storage temp	Ambient

Operating Conditions		
Minimum Bed Depth	mm	1000
Regenerant Concentration	%	4-5 (HCl) 4-5 (NaOH)
Regenerant Flow Rate	*BV/hr	2 – 8
Regenerant Contact Time	Minutes	30 min
Regeneration Level	Kg/ m ³ of Resin	140 (HCl) 50 (NaOH)
Displacement Rinse Rate	*BV/hr	2 – 8
Displacement Rinse Volume	#BV	1 – 2
Fast Rinse Rate	*BV/hr	10 – 40
Fast Rinse volume	#BV	4 – 10
Service flow rate	*BV/hr	10 – 40

* Bed Volume/ Hour ; # Bed Volume

Full Range of Ion Exchange Resins

Cation Exchange Resin	Anion Exchange Resin	DM Resin
CSA 121	GA 11	DMB 13
CSA 121 - FG	GA 11 UPS	DMB 13 UPS
CSA 9	GA 12	DMB 13 S
CSA 9 UPS	GA 13	
CSA 9 - FG	GA 13 UPS	
CSA 9 L	ASB 108	
CSA 9 L Na - FG	ASB 171	
CSA 29	ASB 8010 D	
CSA 29 UPS	ASB 8010 D UPS	
CSA 609 D	ASB 8020 D	
CWA 63	AWB 7020 D	
CWA 92 D	AWB 7030 D	
CSA 309	AWB 7050 D	
	AWB 7050 D UPS	
	GA 711	
Special Application Ion Exchange Resin		
DCHR 71	CGC 1200	DBR 108
DCHR 72	CMC 1900	FRC 10
DCHR 74	CMC 2400	ASB 108 H UPS
DCHR 78	DAAR 85	GA 13 H UPS
DCHR 79	DAAR 312	CWS 66 D
DIRM	DAAR 313	IPSR 550
DCR 11	DAAR 412	DMB 11
DHMR 2	DMB 10	DMB 13 S

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Translating Source Into Resource

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