

TULSION[®] A-23 UPS

TOUGH GEL STRONG BASE ANION EXCHANGE RESIN TYPE I

TULSION[®] A-23 UPS is a strong base anion exchange resin based on polystyrene matrix, containing quaternary ammonium Type I group.

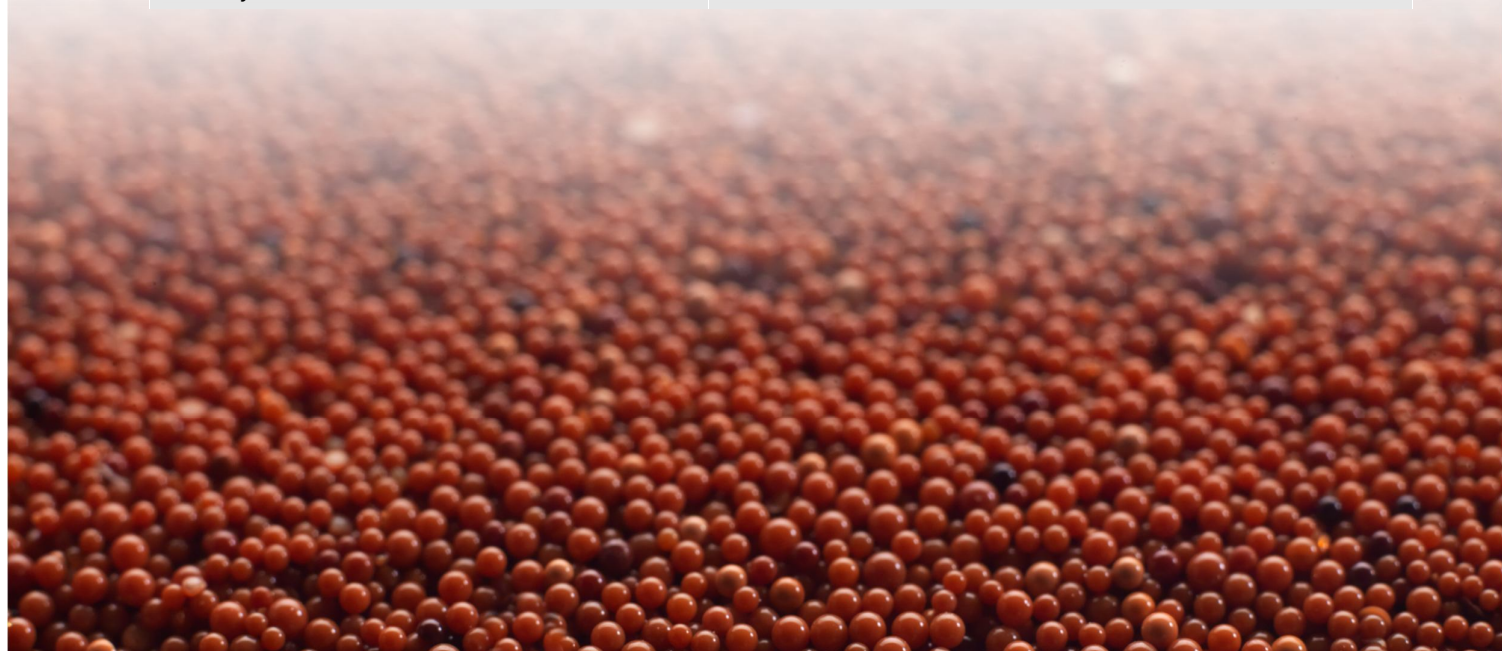
TULSION[®] A-23 UPS has excellent chemical and operating characteristics along with excellent physical properties.

TULSION[®] A-23 UPS has a good operating capacity for weak acids like silicic and carbonic along with strong mineral acids, when used in water treatment along with strong acid cation exchange resin **TULSION[®] T-42 UPS**. It is ideally suited for use in a wide range of pH and temperatures.

TULSION[®] A-23 UPS is supplied as moist spherical bead in the chloride form with a particle size distribution to provide good kinetics and minimum pressure drop. This resin has also better resistance to organic matter.

TYPICAL CHARACTERISTICS

Type	Gel type strong base anion exchange resin
Matrix structure	Polystyrene copolymer
Functional group	Quaternary amine
Physical form	Moist spherical beads
Ionic form	Chloride
Screen size USS (wet)	16-40
Particle size	0.4 to 1.2 mm
Uniformity coefficient	1.4 max
Total exchange capacity	1.3 meq/ml min
Moisture content	53 ± 3%
Temperature stability	175 °F (80 °C)
Backwash settled density	40 to 42 lbs/ft (640 to 680 g/l)
pH range	0 to 14
Solubility	Insoluble in all common solvents



INFLUENT LIMITATION	
Free chlorine	Not traceable
Turbidity	Less than 2 NTU
Iron and heavy metals	Less than 0.1 ppm

OPERATING CHARACTERISTICS	
Maximum Operating temperature	175 °F (80 °C)
Resin bed depth ,minimum	600 mm
Maximum service flow	40 m ³ /hr /m
Backwash expansion space	50 – 70 %
Backwash expansion flow rate at 77 °F (25 °C)	4 – 6 m ³ /hr/m ²
Regenerant	NaOH
Regeneration concentration	4 to 5 %
Regeneration time	30 to 60 minutes
Rinse flow rate : Slow	At regeneration flow rate
: Fast	At service flow rate
Rinse volume	2 to 7 BV

TESTING :

The sampling and testing of ion exchange resins is done as per standard testing procedures, namely ASTM-D-2187 and IS-7330, 1998.

PACKING :

Super Sack	1000 lit.	Super Sack	35 cft
MS drums	180 lit.	Fiber Drums	7 cft
HDPE lines Bags	25 lit.	HDPE Lined Bags	1 cft

For Handling, Safety and Storage requirements please refer to the individual Material Safety Data Sheets available at our offices.

The data included herein are based on test information obtained by Thermax Limited. These data are believed to be reliable, but do not imply any warranty or performance guarantee. Tolerances for characteristics are per BIS/ASTM. We recommend that the user should determine the performance of the product by testing on his own processing equipment.



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