

# INDION® ARU 104

## Uranium Specific Resin

### Description

INDION ARU104 is a gel strong base type I anion exchange resin, specially optimised for recovery of uranium by continuous ion exchange. Its equilibrium capacity, kinetics of loading and elution and hydraulic properties have been carefully balanced so as to give a minimum total resin inventory and equipment size.

INDION ARU 104 has also been designed for higher uranium equilibrium capacity and lower silical pick up. INDION ARU 104 is normally supplied in chloride form. It should therefore be converted to the sulphate form before being put on stream.

### Characteristics

Appearance	:	Golden yellow beads
Matrix	:	Styrene DVB copolymer, gel
Functional group	:	Quaternary ammonium
Ionic form as supplied	:	Chloride
Total exchange capacity	:	1.6 meq/ml, minimum
Moisture holding capacity	:	38 - 42 %
Shipping weight *	:	670 kg/m <sup>3</sup> , approximately
Particle size range	:	0.3 to 1.2 mm
> 1.2 mm	:	Nil
< 0.3 mm	:	1.0%, maximum
Uniformity co-efficient	:	1.2, maximum
Effective size	:	0.45 to 0.55 mm
Maximum operating temperature	:	60° C in OH form 80° C in other forms
Operating pH range	:	0 to 14
Resistance to reducing agents	:	Good
Resistance to oxidising agents	:	Generally good, chlorine should be absent
Chemical resistance	:	Insoluble in dilute solutions of acids, bases and common solvents
Osmotic stability	:	Excellent

\* Weight of resin, as supplied, occupying 1 m<sup>3</sup> in a unit after backwashing and draining.

## Packing

HDPE Lined bags	25/ 50 lts	LDPE bags	1 cft / 25 lts
Super sack	1000 lts	Super sack	35 cft
MS drums		Fiber drums	
with liner bags	180 lts	with liner bags	7 cft

## Storage

Ion exchange resins require proper care at all times. The resin must never be allowed to become dry. Regularly open the plastic bags and check the condition of the resin when in storage. If not moist, add enough

clean demineralised water and keep it in completely moist condition. Always keep the resin drum in the shade. Recommended storage temperature is between 20° C and 40° C.

## Safety

Acid and alkali solutions used for regeneration are corrosive and should be handled in a manner that will prevent eye and skin contact. If any oxidising agents are used, necessary safety precautions should be observed to avoid accidents and damage to the resin.

INDION range of Ion Exchange resins are produced in a state-of-the-art ISO 9001 and ISO 14001 certified manufacturing facilities at Ankleshwar, in the state of Gujarat in India.

To the best of our knowledge the information contained in this publication is accurate. Ion Exchange (India) Ltd. maintains a policy of continuous development and reserves the right to amend the information given herein without notice.

**INDION** is the registered trademark of Ion Exchange (India) Ltd.

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