

# INDION<sup>®</sup> 223 Li

## Description

INDION 223 Li<sup>+</sup> is a nuclear grade strongly acidic cation exchange resin. It is a gel type ion exchanger having crosslinked polystyrene matrix and sulphonic

acid functionality. The resin is supplied in highly purified form, free from all impurities.

### Characteristics

|                           |   |  |
|---------------------------|---|--|
| Appearance                | : | Spherical beads  |
| Matrix                    | : | Styrene divinylbenzene copolymer   |
| Functional Group          | : | Sulphonic acid   |
| Ionic form as supplied    | : | Lithium  |
| Bead strength             | : | 500 g, average   |
| Microscopic Examination   | : | Surface cracks not more than 5%  |
| Total exchange capacity   | : | 1.8 meq/ml, minimum  |
| Ionic conversion          | : | 99% of exchange sites in Li <sup>+</sup> form  |
| Moisture holding capacity | : | 47 - 53 %  |
| Shipping weight *         | : | 800 kg/m <sup>3</sup> , approximately  |
| Particle size range       | : | 0.3 to 1.2 mm  |
| > 1.2 mm                  | : | 5.0%, maximum  |
| < 0.3 mm                  | : | 0.5%, maximum  |
| Uniformity co-efficient . | : | 1.8, maximum   |
| Effective size            | : | 0.45 to 0.60 mm  |
| Stability                 | : | Stable upto 120 °C<br>Stable in pH range 0 - 14<br>Resistant to oxidizing and reducing agents.<br>Stable in Radiation field upto 10 <sup>7</sup> rad |

### Impurities

|                        |   |                                       |
|------------------------|---|---------------------------------------|
| Iron                   | : | 20 mg/l, maximum                      |
| Copper                 | : | 10 mg/l, maximum                      |
| Heavy metals as Pb     | : | 10 mg/l, maximum                      |
| Water soluble organics | : | 0.1 mg KMnO <sub>4</sub> /ml, maximum |

\* 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        | 180 lts    | Fiber drums     | 7 cft          |
| with liner bags |            | with liner bags |                |

## Storage

Ion exchange resins require proper care at all times. The resins must never be allowed to become dry. The drums should therefore be always kept in shade in tightly closed condition.

## 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. This product data sheet (issue 09/2008) replaces previous issues.

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



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