

# INDION® 414

## Description

INDION 414 is a high purity pharmaceutical grade weak acid cation exchange resin, supplied as a dry powder in potassium form. It is suitable for use in pharmaceutical applications such as tablet disintegration and taste masking of bitter drugs. INDION 414 is based on a crosslinked polyacrylic acid. INDION 414 is manufactured in an FDA approved manufacturing facility. The parent material is manufactured in a ISO 9001 and ISO 14001 certified facility.

## Applications

### Tablet disintegration

INDION 414 is an extremely effective tablet disintegrant which provides the necessary hardness and chemical stability to the tablet. The product swells up to a very great extent (about 700%) when in contact with water or gastro-intestinal fluids, causing rapid

disintegration without the formation of lumps. Depending on the formulation, the use of 0.5% to 2% of INDION 414 is recommended for effective disintegration of the tablet. Some of the advantages of using INDION 414 as a tablet disintegrant are :

- Remarkable swelling tendency on wetting, causing rapid disintegration.
- No lump formation on disintegration.
- Compatible with commonly used therapeutic agents and excipients.
- Works equally efficiently in hydrophilic and hydrophobic formulations.
- Gives good mechanical strength to the tablet, facilitating easy packing and transportation.
- Does not dissolve or have an adhesive tendency as in case of gums.
- Does not stick to punches and dyes.

## Characteristics

Appearance	:	White to pale cream powder
Matrix	:	Crosslinked acrylic co-polymer
Functional Group	:	Carboxylic acid
Ionic form as supplied	:	Potassium
Solubility	:	Insoluble in water and in common solvents

## Specifications

Particle size distribution		
Retained on 100 BSS mesh (150 microns)	:	1.0%, maximum
Retained on 200 BSS mesh (75 mficrons)	:	30%, minimum
Moisture content	:	10 %, maximum
Sodium content	:	0.2%, maximum
Potassium content	:	20.6 - 25.1%
pH of 10% slurry	:	7.0 - 9.0
Iron content as Fe	:	100 ppm, maximum
Heavy metals content as Pb	:	20 ppm, maximum
Arsenic content as As	:	3 ppm, maximum

## Toxicity

INDION 414 is a high molecular weight polymer. It is therefore not absorbed by body tissues and is totally safe for human consumption. Tests for toxicological tolerance show that it does not have any pronounced physiological action at recommended dosage level and is definitely non-toxic. Experiments on mice have shown LD 50 value of INDION 414 to be approximately 10,000 mg/kg body weight.

## Packing

HDPE carboys with inner double plastic liner bags 6 / 20 / 40 kgs

## Storage

INDION 414 is hygroscopic in nature. It is therefore essential to store it in a tightly packed container to prevent absorption of atmospheric moisture. If moisture is absorbed, the INDION 414 can be dried at 90° C to 100° C for approximately 6 hours to reduce the moisture content below 10%.

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



### CORPORATE OFFICE

Tiecicon House, Dr. E. Moses Road, Mahalaxmi, Mumbai 400 011  
Tel: 022-3989 0909 Fax: 022-2493 8737  
E-mail: ieil@ionexchange.co.in ; hocro@ionexchange.co.in

### INTERNATIONAL DIVISION

R-14, T.T.C MIDC, Thane-Belapur Road, Rabale, Navi Mumbai 400 705  
Tel: 022-3989 0909/3047 2400 Fax: 022-2769 7918  
E-mail: rabcrointl@ionexchange.co.in; export.sales@ionexchange.co.in

### REGIONAL OFFICES

- **Chennai** - Tel: 044-3910 2900/ 3989 0909 Fax: 044-2815 3361  
E-mail: checro@ionexchange.co.in
- **Delhi** - Tel: 011-3989 0909/3054 3200 Fax: 011-2577 4837  
E-mail: delcro@ionexchange.co.in
- **Kolkata** - Tel: 033-3989 0909/3043 3400 Fax: 033-2400 4345  
E-mail: calcro@ionexchange.co.in
- **Vashi** - Tel: 022-3989 0909/3913 2300 Fax: 022-2788 9839  
E-mail: mumcro@ionexchange.co.in

### BRANCH OFFICES

- **Bangalore** - Tel:-080-3251 6205, Cell:09341247700  
E-mail: bngcro@ionexchange.co.in
- **Chandigarh** - Tel: 0172-274 5011 Fax: 0172-274 4594  
E-mail: delcro@ionexchange.co.in
- **Hyderabad** - Tel: 040-3066 3101/02/03 Fax: 040-3066 3104  
E-mail: hydicro@ionexchange.co.in
- **Lucknow** - Tel: 0522-301 3401/02 Fax: 0522- 301 3401  
E-mail: luk.general@ionexchange.co.in
- **Pune** - Tel: 020-3062 6160 Fax: 020-2714 6109  
E-mail: pun.general@ionexchange.co.in
- **Vadodara** - Tel: 0265-239 6506/6507 Fax: 0265-239 8508  
E-mail: brdcro@ionexchange.co.in
- **Vizag** - Tel: 0891-324 6253  
E-mail: sales.vizag@ionexchange.co.in

### FACTORIES

• Ankleshwar • Hosur • Patancheru • Rabale • Verna

**ALL INDIA NETWORK OF SERVICE COMPANIES AND DEALERS**

Visit us at : [www.ionindia.com](http://www.ionindia.com)