

# INDION® 870

## Description

INDION 870 is a macroporous weakly basic anion exchange resin. It is useful for the adsorption of acidic solutes from either aqueous or non-aqueous media. INDION 870 is supplied in free base form. The basicity of primary amine functional group makes this resin capable of withstanding high temperature (upto 100 degree C) and useful in removal of mineral acid impurities like hydrochloric acid and sulphuric acid from their mixtures with organic acids such as citric acid and tartaric acid.

## Applications

A wide variety of chemical products require deacidification before they can be used, shipped or stored. The properties of Indion 870 are well suited for applications, such as:

- Removal of strong mineral acids from organic solvents.
- Deacidification of phenol/alkyl phenol streams.
- Separation of mineral acid impurities from weak organic acids.
- Deacidification (removal of Formic acid) of Dimethyl formamide.

## Characteristics

Appearance	:	Off white to brown opaque beads
Matrix	:	Styrene divinyl benzene copolymer
Functional Group	:	Primary amine
Ionic form as supplied	:	Free base
Total exchange capacity	:	0.95 meq/ml, minimum
Moisture holding capacity	:	47 - 55 %
Shipping weight *	:	660 kg/m <sup>3</sup> , approximately
Particle size range	:	0.3 to 1.2 mm
> 1.2 mm	:	5.0%, maximum
< 0.3 mm	:	1.0%, maximum
Uniformity co-efficient	:	1.7, maximum
Effective size	:	0.40 to 0.50 mm
Maximum operating temperature	:	60° C in free base form 80° C in hydrochloride form
Operating pH range	:	0 to 7
Volume change	:	Free base to Hydrochloride, 25 % Maximum
Resistance to Reducing agents	:	Good
Resistance to oxidizing agents	:	Generally good, chlorine should be absent

\* 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. 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 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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