

INDION® MB 6 SR (Refill Pack)

Description

INDION MB-6 SR (Refill Pack) is a pack of a mixed bed ion exchange resins. It is a mixture of super regenerated strongly acidic cation exchange resin (INDION 223) in H form and strongly basic type I anion exchange resin (INDION GS 300) in OH form supplied in a volume ratio of 1:2.

Applications

INDION MB-6 SR (Refill Pack) is used to produce mixed bed quality water.

Characteristics

Physical

Physical form	:	Spherical beads
Shipping weight *	:	700 kg/m ³ , approximately
Particle size distribution	:	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	:	0.45 to 0.55 mm

Chemical

Cation resin

Anion resin

Matrix	Crosslinked polystyrene	Crosslinked polystyrene
Type	Gel	Gel
Functional group	Sulphonic acid	Benzyl trimethylammonium
Total exchange capacity	1.9 meq/ml	1.0 meq/ml
Ionic conversion	99 %, minimum H ⁺	90 %, minimum OH ⁻
Moisture holding capacity	47 - 55 %	60 - 70 %

* Weight of resin, as supplied, occupying 1 m³ in a unit after backwashing and draining.

Packing

PVC Jars with inner liner bags	5 / 6 lts
LDPE lined bags	0.5 cft / 1 cft / 25 lts
HDPE lined bags	25 / 50 lts
HDPE drums	50 / 100 / 180 lts

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. Since

INDION MB 6 SR is supplied in highly regenerated condition, any exposure to atmospheric air must be avoided as this will convert it to the carbonate form. The resin drums should therefore be kept 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 state-of-the-art ISO 9001 and ISO 14001 certified manufacturing facility at Ankleshwar, Gujarat.

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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MATERIAL SAFETY DATA SHEET

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1. IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND OF THE COMPANY

Identification of the substance / preparation :

Product Name	INDION MB 11, MB 12, MB 115, MB 6SR , RPI, GMW 11(GVI)
Chemical Name	Crosslinked Polystyrene with Sulphonic acid and quaternary amine functionality
Ionic Form	H ⁺ / OH ⁻
Use of the substance/preparation	
Main use	Water Purification

Identification of the Company :

Company undertaking Identification	ION EXCHANGE (INDIA) LIMITED
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2. COMPOSITION/INFORMATION ON INGREDIENTS

Description	Concentration
Functionalised co-polymer	40 – 50% (Styrene/divinylbenzene)
Moisture content	50 – 60%

3. HAZARDS IDENTIFICATION

Contact with eyes	Irritating to eyes (R36)
Contact with skin	Mildly irritating to skin.
Ecological hazards	May change the pH of receiving waters in case of major spillages.

4. FIRST AID MEASURES

Contact with skin

Remove contaminated clothing.

Contact with eyes

Remove particles and wash affected area with water.

Immediately wash out with plenty of water and remove all particles.

Ingestion

Seek medical attention if irritation persists.

Give 200 – 300 ml water to drink.

Never give anything by mouth to an unconscious person.

Seek immediate medical attention.

Inhalation

Remove patient to fresh air.

Seek medical advice.

5. FIRE- FIGHTING MEASURES

Incase of fire, use foam, carbon dioxide or dry agent.

Substance evolves toxic fumes, wear self-contained breathing apparatus (see Section 10).

Wear full protective clothing including chemical protection suit.

Prevent run off water from entering drains if possible.

If polluted water reaches drainage systems or water courses, immediately inform appropriate authorities.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Keep people away.

Floor may be slippery, take care to avoid falls.

Environmental precautions

Do not allow to enter public sewers and water courses.

Clean up actions

Sweep-up and transfer to plastic containers for recovery or disposal, according to advise in section 13.

7. HANDLING AND STORAGE

Handling

The usual precautions for handling chemicals should be observed.

Risk of static discharge from dry beads.

Storage

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls

No special precautions are required for this product.

Occupational exposure controls

Respiratory protection

Not required for normal operation.

Hand protection

Wear suitable gloves.

Eye protection

Wear safety glasses or goggles.

An eyewash facility should be available.

Skin protection

Wear chemical protective overalls.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Appearance Yellow to brown coloured spherical beads
Physical state Solid
Odour No odour

Important information for human health, safety and environment

pH as supplied Neutral in aqueous slurry
Boiling point Not applicable
Flammability point The preparation starts burning over 230° C only if ignited.
Flammability The preparation is not flammable before the evaporation of moistening water
Explosive properties None
Burning properties None
Specific gravity 1.15, approximately
Solubility In water : virtually insoluble
 In oil : insoluble
Partition coefficient n-octanol/water Not applicable
Viscosity Not applicable
Flash point Not applicable
Melting point Not applicable
Auto-ignition temperature Over 500° C

10. STABILITY AND REACTIVITY

Conditions to avoid

This material is considered stable under normal conditions.

Materials to avoid

Incompatible with strong oxidizing agents.
 Contact with strong oxidizers, especially nitric acid, may produce low molecular weight organics that may form explosive mixtures.

Hazardous decomposition products

Combustion products may include monomers, residual organics, carbon and sulphur oxides.

11. TOXICOLOGICAL INFORMATION

Toxicological Information

LD 50 (Oral, Rat) : Not applicable
 LD 50 (dermal, rabbit) : Not applicable
 LC50 (inhalation, rat) : Not applicable
 Irritation to eyes (rabbit) : Slightly Irritating
 Skin corrosion / irritation (rabbit) : No data available
 Ignition : No hazards anticipated if material has not exchanged hazardous substances.
 No evidence of carcinogenic effects.
 No evidence of teratogenic effects.
 No evidence of mutagenic effects.

Carcinogenicity
Teratogenicity
Mutagenicity

12. ECOLOGICAL INFORMATION

Ecotoxicity
Mobility

Information not available.
 Virtually insoluble in water.
 The product is not volatile.

Persistence and biodegradability

The product is not readily biodegradable

Risk of bioaccumulation

None

Other adverse effects

May change the pH of receiving waters in case of major spillages.

13 DISPOSAL CONSIDERATIONS

The product as delivered is a non-hazardous waste.

The used product may be subject to different classifications. In any case the product shall be disposed off, according to local, regional and national regulations.

EU number for exhausted or saturated ion exchange resins used for the preparation of drinking water or water for industrial use is 19 09 05.
 EU number for exhausted or saturated ion exchange resins used in waste water treatment plants not otherwise specialized is 19 08 06.

14. TRANSPORT INFORMATION

Ion exchange resins as supplied are not classified as hazardous for transport.

Classification for ROAD and RAIL transport: Not regulated (Not dangerous for transport)

Classification for SEA transport: Not regulated (Not dangerous for transport)

Classification for AIR transport: Not regulated
(Not dangerous for transport)

15. REGULATORY INFORMATION

Risk phrases

The product as supplied is non hazardous.

R 36 : Irritating to eyes.

S 26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 39 : Wear eye/face protection

16. OTHER INFORMATION

Note :

Industrial grade products are not intended for analytical, food, medical and pharmaceutical applications without preliminary extensive purification.

Whilst every effort has been made to be as accurate as possible, Ion Exchange (India) Limited provides no warranty with respect to this information and disclaims all liability associated with its use.