

## FOOD TREATMENT SOLUTION

### DESCRIPTION

DYNASPHER CGR-Na is sulphonated copolymer of styrene and DVB in Na<sup>+</sup> Form, produced in uniform and calibrated beads for chromatographic applications.

Its structure is characterized by a correct degree of cross-linking which guarantees separation over time. The main application is the recovery of sugars through the ion exclusion.

Its composition is in accordance with current US and EU food regulations.

### SYSTEM DESIGN

Simulated Moving bed – Improved Simulated Moving Bed – Sequential Simulated Moving Bed

#### PRINCIPAL APPLICATIONS

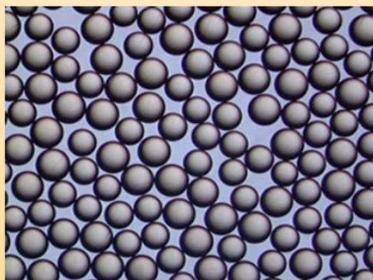
- Sugras recovery – Ion exclusion

#### REGULATORY

- F.D.A. – CFR 21 – 173.25
- Codes Alimentarius – Inventory of Processing Aids – CAC/MISC3
- European Resolution AP (97) – 1 regarding the TOC (Total Organic Carbon) released according AFNOR method (method T90 – 601)

#### TYPICAL PACKAGING

- 1 ft<sup>3</sup> Sack
- 25 lt Sack
- 5 ft<sup>3</sup> Drum (Fiber)
- 1 m<sup>3</sup> Supersack
- 42 ft<sup>3</sup> Supersack



## TYPICAL CHARACTERISTICS

### PHYSICAL CHARACTERISTICS

Copolymer	Polystyrene Crosslinked-DVB
Matrix	Gel
Type	Strong acid
Functional Group	Sulphonic SO <sub>3</sub> H
Physical Form	Yellowish brown transparent spherical beads

### CHEMICAL CHARACTERISTICS

Ionic Form as Shipped	Na <sup>+</sup>
Total Exchange Capacity	≥ 1.6 eq/lit
Water Retention	52.0 - 55.0 %

### PARTICLE SIZE

Particle size	0.280 mm
Uniformity Coefficient	≤ 1.1

### STABILITY

Whole Uncracked Beads	≥ 96 %
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### DENSITY

Particle Density	1.24 g/ml
Shipping Weight	810 g/lit

For additional size in formation, please refer to the our Technical Dept.

### SUGGESTED OPERATING CONDICTIONS

Temperature Range (Na <sup>+</sup> Form)	5 - 120° C (41 - 302° F)
pH Range	0 - 14
pH Stability	0 - 14

For additional praticle size information regarding recommended minimum bed depth, operating conditions, and regeneration conditions for Layered or Mixed bed, please refer to our tecnical dept.

## CUSTOMER NOTICE

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### STORAGE

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It is recommended to store ion exchange resins at temperatures above the freezing point of water under roof in dry conditions without exposure to direct sunlight. If resin should become frozen, it should not be mechanically handled and left to thaw out gradually at ambient temperature. It must be completely thawed before handling or use. No attempt should be made to accelerate the thawing process.

### DISPOSAL

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In the European Community Ion exchange resins have to be disposed, according to the European waste nomenclature which can be accessed on the internet – site of the European Union.

### TOXICITY

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The safety data sheet must be observed. It contains additional data on product description, transport, storage, handling, safety and ecology.

### WARNING

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Oxidizing agents such as nitric acid attack organic ion exchange resins under certain conditions. This could lead to anything from slight resin degradation to a violent exothermic reaction (explosion). Before using strong oxidizing agents, consult sources knowledgeable in handling such materials.