

PRELIMINARY TECHNICAL DATA SHEET

Lewatit® MDS 1369 Ca 320 is a food grade, gel-type, monodisperse, strongly acidic cation exchange resin based on a styrene-divinylbenzene copolymer. Because of its fine bead size, it is particularly suitable for chromatographic separations, such as the separation of glucose and fructose.

Lewatit® MDS 1369 Ca 320 is manufactured, fully tested and validated in a 1,2-dichloroethane-free production process. The removal of 1,2-dichloroethane (also known as ethylene dichloride or EDC) within the **Lewatit® MDS 1369 Ca 320** production process does not lead to any changes in the resin performance in known applications.

If using **Lewatit® MDS 1369 Ca 320** for the treatment of drinking water and the aqueous solutions mentioned above, the startup recommendations are to be observed, which are available on demand.

The special properties of this product can only be fully utilized if the technology and process used correspond to the current state-of-the-art. Further advice in this matter can be obtained from Lanxess, Business Unit Liquid Purification Technologies.

Common Description

Delivery form	Ca ²⁺
Functional group	Sulfonic acid
Matrix	Styrenic
Structure	Gel
Appearance	Light brown, transparent

Specified Data

Uniformity coefficient		max.	1.15
Mean bead size	d50	mm	0.29-0.35
Total capacity (H ⁺ form)		min. eq/L	1.8

Typical Physical and Chemical Properties

Bulk density for shipment	(+/- 10%)	g/L	780
Density		approx. g/mL	1.3
Water retention (H ⁺ form)		approx. weight %	47-53
Stability pH range			5-14
Stability temperature range		°C	1-120
Storage time (after delivery)		min. years	0.5
Storage temperature range		°C	-20 - +40

Operation

Operating temperature		max. °C	120
Operating pH range	during exhaustion		0-14
Bed depth for single column		min. mm	800
Back wash bed expansion per m/h (20°C)		%	15
Specific pressure loss kPa*h/m ² (15°C)		kPa*h/m ² (15°C)	4
Max. pressure loss during operation		kPa	200

This document contains important information and must be read in its entirety.

Additional Information & Regulations

Safety precautions

Strong oxidants, e.g. nitric acid, can cause violent reactions if they come into contact with ion exchange resins.

Toxicity

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

Disposal

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.

Storage

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.

Packaging

The experience has shown that the packaging stability for reliable resin containment is limited to 24 months under the storage conditions described above. It is therefore recommended to use the product within this time frame; otherwise the packaging condition should be checked regularly.

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