PRODUCT INFORMATION
LEWATIT® S 7968

Lewatit® S 7968 is a Food grade, macroporous adsorber resin without functional groups. It has beads of a uniform size (monodisperse).

It can be used in the extraction / purification of natural or synthetic organic products in the food industry.

In addition, it can be used for the adsorption / removal of:

- anionic, cationic and nonionic surfactants
- chlorinated and nitrated hydrocarbons
- colorants or inert organic materials
- for removing of non-polar organic ingredients of low molecular mass from landfill leachates
- for debittering of fruit juices

Lewatit® S 7968 has the following properties:

- very good mechanical stability and low attrition
- longer resin life time and better regeneration efficiency compared to activated carbon
- high adsorption capacity especially at medium and high feed concentration
- good kinetic performance during adsorption and elution

Prior to industrial application, preliminary tests should be carried out on a laboratory scale, in order to determine the maximum adsorptive capacity and the optium regenerant. Experience has shown that the maximum capacity of the adsorber resin is reached after the third cycle.

When using **Lewatit® S 7968** to treat potable water and the aqueous solutions listed above, special care should be given to the initial cycles of the new resin. Please refer to the recommended start-up conditions available on request.

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	Neutral
Functional group	None
Matrix	Styrenic
Structure	Macroporous
Appearance	White, opaque

Specified Data

Uniformity coefficient		max.	1.1
Mean bead size	d50	mm	0.44-0.54

Typical Physical and Chemical Properties

Bulk density for shipment	(+/- 5%)	g/L	600
Density		approx. g/mL	1.0
Water retention (delivery form)		approx. weight %	54-63
Stability pH range			0-14
Stability temperature range		°C	1-120
Storage time (after delivery)		max. years	2
Storage temperature range		°C	-20 - +40
Surface BET		approx. m^2/g	800
Pore volume		approx. cm^3/g	1.2
Pore diameter		approx. nm	5-10

Operation

Operating temperature		max. °C	120
Operating pH range	during exhaustion		0-14
Bed depth for single column		min. mm	1000
Back wash bed expansion per m/h (20°C)		%	45
Specific pressure loss kPa*h/m^2 (15°C)		kPa*h/m^2 (15°C)	1.5
Max. pressure loss during operation		kPa	250
Specific flow rate		max. BV/h	5

Regeneration

HCl regeneration	concentration	approx. wt. %	4-6
HCl regeneration	quantity co-current	min. g/L resin	100
HCl regeneration	quantity counter-current	min. g/L resin	55-65
H_2SO_4 regeneration	concentration	approx. wt. %	1.5-3
H_2SO_4 regeneration	quantity co-current	min. g/L resin	150
H_2SO_4 regeneration	quantity counter-current	min. g/L resin	80
NaOH regeneration	concentration	approx. wt. %	2-6
NaOH regeneration	quantity co-current	min. g/L resin	100
NaOH regeneration	quantity counter-current	min. g/L resin	60
Regeneration contact time		min. minutes	30
Slow rinse at regeneration flow rate		min. BV	2
Fast rinse at service flow rate		min. BV	4

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 conditions
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.

Storage time
The recommended storage time for this product is explained in the technical document “Technical guidelines on the storage of Lewatit® ion exchange resins” available for download on our website. Please use the following link for more information: https://lanxess.com/en/products-and-brands/brands/lewatit/literature

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.

LANXESS Deutschland GmbH
Liquid Purification Technologies
Kennedyplatz 1
50569 Koeln
Germany

+49-221-8885-0
lewatit@lanxess.com

www.lanxess.com
www.lpt.lanxess.com