

Lewatit® S 4468 is a food grade, macroporous, monodisperse, medium basic anion exchange resin (tertiary and quaternary amino groups) based on a styrene-divinylbenzene copolymer.

In its form of a free base, the **Lewatit® S 4468** is suitable for the removal of acid and simultaneous decolorisation of solutions of organic products such as glucose, fructose or dextrose (particularly suitable due to low fructose formation) and other sugars, etc.

The macroporous structure and the balanced relation between weakly and strongly basic groups ensures very good adsorption of organic substances (e.g. colorants) and of organic acids and mineral acids. The substances adsorbed can easily be desorbed by regeneration with caustic soda solution.

If using **Lewatit® S 4468** 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 Corporation.

Common Description

Delivery form	Free base/Cl ⁻
Functional group	Tertiary amine/ quaternary ammonium
Matrix	Styrenic
Structure	Macroporous
Appearance	Beige, opaque

Specified Data

		US Units			
Uniformity coefficient				max.	1.1
Mean bead size	d50			mm	0.50-0.60
Total capacity (delivery form)		kgr/ft ³	35	min. eq/L	1.6

Typical Physical and Chemical Properties

		US Units		Metric Units	
Bulk density for shipment	(+/- 5%)	lb/ft³	39	g/L	620
Density				approx. g/mL	1.1
Water retention (delivery form)				approx. weight %	52-57
Volume change (free base - Cl)				max. approx. %	30
Volume change (during exhaustion)				typical approx. %	24
Stability pH range					0-14
Stability temperature range				°C	1-70
Storage time (after delivery)				max. years	2
Storability temperature range				°C	-20 - +40

Operation

		US Units		Metric Units	
Operating temperature		max. °F	158	max. °C	70
Operating pH range	during exhaustion				0-8
Bed depth for single column		min. inches	31	min. mm	800
Back wash bed expansion per m/h (20°C)				%	21
Specific pressure loss (15°C)				kPa*h/m²	1
Max. pressure loss during operation		PSI	44	kPa	300
Specific flow rate		max. gpm/ft³	0.63	max. BV/h	5
Freeboard	during backwash			min. vol. %	80-100

Regeneration

		US Units		Metric Units	
NaOH regeneration	concentration	approx. wt. %	2-4	approx. wt. %	2-4
NaOH regeneration	quantity co-current	min. lb/ft³	5.0	min. g/L resin	80
NaOH regeneration	quantity counter-current	min. lb/ft³	3.8	min. g/L resin	60
Regeneration contact time		min. minutes	30	min. minutes	30
Slow rinse at regeneration flow rate		min. gal/ft³	15	min. BV	2
Fast rinse at service flow rate		min. gal/ft³	30	min. BV	4

Additional Information & Regulations

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE OF PRODUCTS MENTIONED HEREIN IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING ANY PRODUCT, ALWAYS READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION.

Safety precautions

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

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 within the product safety information. It is therefore recommended to use the product within this time frame; otherwise the packaging condition should be checked regularly.

PRODUCT INFORMATION

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

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