

**Lewatit® K 2431** is a strongly acidic, macroporous, polymer-based resin in spherical bead form, with sulfonic acid groups. In contrast to gel-type resins, the macroporous structure of this resin allows larger molecules better access to the active sites. It is ideally suited for processing liquid organic media and generally gives better results if used in media of higher polarity.

**Lewatit® K 2431** is especially designed for the following applications:

- Phenol alkylation with olefins
- Esterifications and etherifications
- Condensation reactions
- Alkylation of larger polar and non-polar molecules
- Purification of phenol

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	H <sup>+</sup>
Functional group	Sulfonic
Matrix	Styrenic
Structure	Macroporous
Appearance	Beige, opaque

## Specified Data

Uniformity coefficient	max.	1.7
Range of size for >90 vol% of all beads	mm	0.5-1.6
Effective size	mm	0.56-0.66
Total capacity (delivery form)	min. eq/L	1.2

## Typical Physical and Chemical Properties

Bulk density for shipment	(+/- 5%)	g/L	700
Density		approx. g/mL	1.14
Water retention (delivery form)		approx. weight %	63-68
Stability temperature range		°C	1-130
Storage temperature range		°C	-20 - +40
Surface BET		approx. m <sup>2</sup> /g	25
Pore volume		approx. cm <sup>3</sup> /g	0.35
Pore diameter		approx. nm	40

## Operation

Operating temperature		max. °C	130
Bed depth for single column		min. mm	1000
Max. pressure loss during operation		kPa	250

## 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.

This information and our technical advice – whether verbal, in writing or by way of trials – are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with the current version of our General Conditions of Sale and Delivery.

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