

# PRODUCT INFORMATION

## LEWATIT<sup>®</sup> NM-65



**Lewatit<sup>®</sup> NM-65** is a premium grade, gel type, high capacity, color indication mixed ion exchange resin prepared with a 1:1 chemically equivalent ratio of cation to anion resin. **Lewatit<sup>®</sup> NM-65** is a mixture of gel type cation exchange resin and a standard cross-linked gel type anion exchange resin. The mixed resin is prepared from component resins which have been manufactured with the highest degree of purity and conversion to the H<sup>+</sup> / OH form. **Lewatit<sup>®</sup> NM-65** is specially manufactured with a color indicator to visually show the exhaustion wavefront of exchanged ions during standard downflow service in cartridge application.

**Lewatit<sup>®</sup> NM-65** is recommended for preparation of low TDS, low CO<sub>2</sub> and low silica water quality where a visual endpoint of the resin bed capacity is desirable. **Lewatit<sup>®</sup> NM-65** is supplied pre-mixed as spherical beads in a heterodispersed particle distribution in fully swollen bead form.

**Lewatit<sup>®</sup> NM-65** is designed for non regenerable application. The component resins may be separated, and regenerated and remixed, however, the color indication may be compromised, and the treated water quality after user regeneration may not be of the same high purity as the originally supplied resin.

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 Ion Exchange Resins.

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## General Description

Ionic form as shipped	H <sup>+</sup> / OH <sup>-</sup>
Functional group	sulfonic acid/quaternary amine
Matrix	dvb / styrene
Structure	gel
Appearance	dark purple to light brown

## Physical and Chemical Properties

	U.S. Units		Metric Units		
Uniformity coefficient			max.	1.6	
Bead size*	U.S. mesh	16 - 50	mm	0.3 - 1.25	
Effective size			mm	0.50 (+/-0.10)	
Bulk Density	+/- 5%	lbs/ft <sup>3</sup>	43	g/l	688
Density				g/ml	1.10
Water retention*				wt. %	60
Resistivity	min. megohm -cm				16
Column Capacity*	min. to 0.02 megohm-cm endpoint	Kgr/ft <sup>3</sup>	12	eq/l	0.55
Stability	at pH range				0 - 14
Stability	temperature range	°F	34 - 140	°C	1 - 60
Storability	of product			max. years	1
Storability	temperature range	°F	40 - 75	°C	4 - 24

\* Specification values subjected to continuous monitoring.

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## Recommended Operating Conditions\*

	<b>U.S. Units</b>	<b>Metric Units</b>		
Operating temperature	max. °F	140	max. °C	60
Operating pH range				0 - 14
Bed Depth	min. inches	31	min. mm	800
Pressure drop	max. psi	40	max. KPa	280
Linear velocity	exhaustion	gpm/ft <sup>2</sup>	max. m/h	12 - 49

\* The recommended operating conditions refer to the use of the product under normal operating conditions. It is based on tests in pilot plants and data obtained from industrial applications. However, additional data are needed to calculate the resin volumes required for ion exchange units. These data are to be found in our Technical Information Sheets.

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## Additional Information and Regulations

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### Safety precautions

Strong oxidants, e.g. nitric acid, can cause violent reactions when in contact with ion exchange resins.

### Toxicity

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

### Storage

It is recommended to store ion exchange resins at temperatures above the freezing point of water. Ion exchange resin should not be stored in direct sunlight. If the resin should become frozen, the resin should be left to thaw out at ambient temperature before handling. No attempt should be made to accelerate the thawing process.

### Disposal

The MSDS contains additional data on product safety and disposal.

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and application. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee and is subject to change with notice. It is expressly understood and agreed that you assume and hereby expressly release us from liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact under the claims of any patent.

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

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