

# Product Information

## Ionac<sup>®</sup> NM-91



**Ionac<sup>®</sup> NM-91** is a high capacity mixed bed ion exchange resin consisting of a volumetric ratio of 45% gel, Type 1 strong base anion resin and a 55% gel strong acid exchange resin. **Ionac<sup>®</sup> NM-91** is characterized by high cation capacity. **Ionac<sup>®</sup> NM-91** offers specific advantages in some demineralizing applications. **Ionac<sup>®</sup> NM-91** is recommended for non-regenerable applications.

**Ionac<sup>®</sup> NM-91** applications include; EDM recycling, alkaline feed demineralization, waste / water recovery, process industries and once-through cartridges.

### Physical and Chemical Properties

### U.S. Units

### Metric Units

Functional group		sulfonic acid / quaternary amine		sulfonic acid / quaternary amine	
Matrix			dvb / styrene		dvb / styrene
Appearance		black / brown translucent		black / brown translucent	
Ionic form as shipped			H <sup>+</sup> / OH <sup>-</sup>		H <sup>+</sup> / OH <sup>-</sup>
Uniformity coefficient		max.	1.6	max.	1.6
Bead size*		US mesh	16 - 50	mm	0.3 - 1.25
Effective bead size	AB +/- 0.10			mm	0.50
Shipping weight	+/- 5%	lbs/ft <sup>3</sup>	47	g/l	752
Density				g/ml	1.17
Water retention*		max. %	60	max. %	60
Resistivity*	megohms	min.	5	min.	5
Column Capacity*	min. to 0.02 megohm endpoint	Kgrs/ft <sup>3</sup>	9	eq/l	0.41
Stability	pH range		0 - 14		0 - 14
Stability	temp range	°F	34 - 140	°C	1 - 60
Storability	of product	max. months	24	max. months	24
Storability	temp range	°F	34 - 104	°C	1 - 40

\* Specification values subjected to continuous monitoring.

**MSDS:** Material Safety Data Sheets are available for all Sybron Chemicals Inc. products. The MSDS contains pertinent information that may be required to ensure safe handling and use of our products. It is recommended that copies of the MSDS be obtained by calling **1-800-678-0020** or **1-800-526-9377**.

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### Recommended Operating Conditions

### U.S. Units

### Metric Units

		U.S. Units		Metric Units	
Operating temperature		max. °F	140	max. °C	60
Operating pH range			0 -14		0 - 14
Bed Depth		min. inches	31	min. mm	800
Max. pressure drop		psi	28	KPa	200
Surface flow rate	exhaustion	gpm/ft <sup>2</sup>	5 - 20	m/hr	12 - 49

## Additional Information and Regulations

### 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 (wether 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 whhether they 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.

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