

# VIGON® N 501

## Aqueous-based, pH-neutral defluxing agent for spray-in-air cleaning processes



VIGON® N 501 is an innovative and one-of-a-kind defluxing product with a revolutionary pH-neutral formulation. The cleaning agent was developed to be used in spray-in-air inline and batch cleaning applications as well as in dip tank processes utilizing low operating concentrations. Its excellent cleaning performance and ability to remove a wide range of flux residues from electronic assemblies under pH-neutral conditions is unprecedented. Due to its neutral pH-value the cleaning agent also demonstrates a high level of material compatibility without the need of additives.

Areas of application: PCB cleaning		Further Information for this product:
Low solid flux residues*	+	<b>Technical Information Sheet 2:</b> Overview of all fluxes and solder pastes tested
Water-soluble flux residues*	+	<b>Technical Information Sheet 3:</b> Material Compatibility overview
Rosin-based flux residues*	+	<b>Application Recommendation:</b> Specific process parameters for your cleaning trial
Solder paste (unsoldered)	+	<b>MPC® Technology Sheet:</b> Detailed information on the MPC® Technology

++ highly recommended, best results    + recommended    o possible    (tested for standard batch cleaning equipment)  
\* Valid for all standard-, lead-free and lead-based solders

### Free-of-Charge Cleaning Trials at ZESTRON's Technical Centers



Free-of-charge cleaning trials can be performed at one of ZESTRON's Global Technical Centers. ZESTRON's European, North American and Asian Technical Centers feature spray-in-air, ultrasonic or spray-under-immersion processes. This provides an extensive overview on all available processes by leading international equipment manufacturers.



Upon completion of the cleaning trials, extensive analytical tests such as SIR and ionic residue measurements can be performed.

Please consult with ZESTRON's Application Technology Centers regarding future cleaning trials: Phone +49-841-635-26; Email: techsupport@zestron.com

### Advantages compared to other cleaners:

- Due to its neutral pH-value, the cleaning agent demonstrates an unprecedented level of material compatibility on sensitive materials such as aluminum, brass or nickel, plastics, labels and inks.
- Exceptional ability to clean underneath low standoff components, even at low concentrations.
- Due to the neutrality of the cleaning agent the permission of for sewage discharge can be achieved easier. Additionally costs for sewage neutralization can be avoided.

TECHNICAL INFORMATION 1

www. ZESTRON .com

South Asia  
Kulim – Malaysia  
infoasia@zestron.com

North Asia  
Shanghai – China  
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America  
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Process	Cleaning	Rinsing	Drying
Spray-in-air	VIGON® N 501	warm DI-water	Hot air or circulating air
Dip tank	VIGON® N 501	warm DI-water	Hot air or circulating air

Technical Data		
Please note that the following information represents VIGON® N 501 at 15 % concentration.		
Density	(g/ccm) at 20°C/68°F	1.00
Surface tension	(mN/m) at 25°C/77°F	28.9
Boiling point	°C/°F	98 - 230°C / 208 - 446°F
Flash point	°C/°F	none until boiling
pH-Value	10g/l H <sub>2</sub> O	neutral
Vapor pressure	(mbar) at 20°C/68°F	n.a
Cleaning temperature	°C/°F	40 - 70°C / 104 - 158°F
Solubility in water		soluble
Application concentration <sup>1</sup>	%	10 - 15
HMIS Rating	Health-Flammability-Reactivity	1 - 0 - 0

<sup>1</sup> VIGON® N 501 is recommended to be diluted in DI-Water.

## LEAD-FREE COMPLIANT:



VIGON® N 501 meets the RoHS & WEEE guidelines, current worker safety standards as well as the actual applicable environmental requirements. ZESTRON voluntary avoids the use of critical substances during product development.



Extensive tests confirmed the qualification of VIGON® N 501 for the cleaning of lead-free solder pastes. For detailed results, please request our Technical Information Sheet 2.

## Filter recommendation

To take full advantage of the MPC® Technology and further expand VIGON® N 501 bath life, filtration is recommended. For details, please request our "Filter Recommendation" sheet.

## Environmental, health and safety regulations:

VIGON® N 501 is water-based and biodegradable. VIGON® N 501 is formulated free of any halogenated compounds. Refer to the MSDS for specific handling precautions and instructions.

## Availability/Storage:

VIGON® N 501 is available as a concentrate in 1L bottles, 5L or 25L canisters or 200L drums.

Store VIGON® N 501 in the original container at a temperature between 5-30°C / 41-86°F. The product has a minimum shelf life of 5 years in factory sealed containers.

## Cleaning Standards

Electronic assemblies cleaned with VIGON® N 501 in a ZESTRON specified process meet the following industry standards:

- IPC-A-610 Visual cleanliness
- J-STD 001D Ionic cleanliness
- IPC-TM 650 and DIN 32513 (surface resistance)
- J-STD 003 solderability