Technical Information



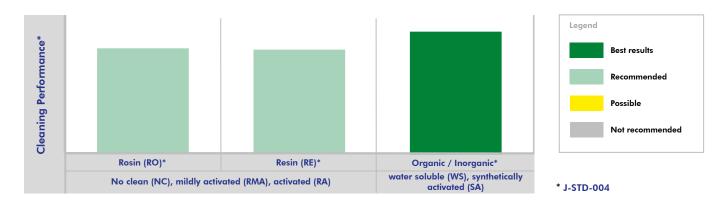




Water-based, alkaline defluxing agent for dip tank processes

VIGON® US is a water-based cleaning agent specifically developed for the use in ultrasonic, spray-under-immersion and centrifugal cleaning equipment. Based on the MPC® Technology, VIGON® US removes all types of flux residues from electronic assemblies, flip chip packages and CMOS.

Areas of application – PCBA Defluxing



Advantages compared to other cleaners

- Specifically designed for the use in dip tank systems.
- Works exceptionally well in capillary spaces and is suitable for under low standoff component cleaning.
- Can be easily rinsed without leaving residues on the surface and provides low ionic contamination of cleaned parts.
- Its high bath loading capacity ensures an extended bath life and low maintenance cost.
- Has no flash point and does not require explosion proof equipment.
- Ensures a void-free underfill by removing all tacky fluxes from Flip Chips/CMOS.
- Improves the image resolution/reduces pixel defects due to particle removal from CMOS image sensors.

Process Steps

Cleaning Process	Parts	1. Cleaning	2. Rinsing	3. Drying
Dip tank (Ultrasonic, Spray-under-immersion)	PCBAs (Flip Chip, CMOS)	VIGON® US	DI-water	Hot air or circulating air
Centrifugal	PCBAs (Flip Chip, CMOS)	VIGON® US	DI-water	Hot air

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Independent Test Center - Largest choice of leading machines, chemistry & analytics





Visit our Machine Test Center and clean your electronic assemblies in cleaning machines of leading international equipment suppliers.

- You are introduced to the cleaning machines & you clean your PCBAs under production conditions supported by your ZESTRON process engineer
- You check the cleaning results immediately on site (ROSE, optionally IR, IC, SEM/EDX etc.) for maximum comparability & result transparency
- You receive a process guarantee including detailed process parameters for the machine/cleaner combination that we recommend

Contact ZESTRON's process engineers for cleaning trials:

Europe: +49 8453 41995 318; techsupport@zestron.com / South Asia: +604 (3996) 100; support@zestronasia.com

Technical Data*

Density	(g/ccm) at 20°C/68°F	0.99
Surface tension	(mN/m) at 25°C/77°F	30.8
Boiling point	°C/°F	165 - 212°C / 329 - 414°F
Flash point	°C/°F	None until boiling
pH value	10g/l H ₂ O	11.3
Vapor pressure	(mbar) at 20°C/68°F	Approx. 19
Cleaning temperature	°C/°F	40 - 60°C / 104 - 140°F
Solubility in water		Soluble
Application concentration ¹	Concentrate	15 - 30 %
HMIS Rating	Health-Flammability-Reactivity	0 - 0 - 0

^{*} Please note that the following information represents VIGON® US at 20 % concentration.

Product Features & Cleaning Standards



100% compliance with EU guidelines (RoHS 1, 2 & 3, WEEE)



Extensively tested and suitable for cleaning lead-free solder pastes



 $\mathsf{MPC}^{\circledast}\mathsf{Technology}$ ensures an extremely long bath life when used in a closed loop system



Product is free of any critical substances according to SIN & SVHC lists

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

- IPC-A-610 Visual cleanliness
- J-STD 001 Ionic and resin cleanliness and foreign object debris
- IPC 5704 Cleanliness requirements for bare boards
- IPC-Hdbk-65B Guidelines for cleaning of printed boards and assemblies

A cleaning process using VIGON $^{\scriptsize \scriptsize{\$}}$ US can help to reduce particle contamination.

¹ The concentrate of VIGON® US has to be diluted in DI-water.

Technical Information



Environmental, health & safety regulations

- VIGON® US is water-based and biodegradable.
- VIGON® US is formulated free of any halogenated compounds and environmentally friendly.
- Refer to the SDS for specific handling precautions and instructions.

Availability & Storage

1 Liter	✓
5 Liter	✓
25 Liter	✓
200 Liter	✓

- Available as concentrate
- Store VIGON® US 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.



Further product information

Material Compatibility

Please review the Material Compatibility overview before using the cleaning agent.

MPC® Technology Sheet

Detailed information on MPC® Technology

Filter recommendation

To take full advantage of MPC® Technology and further extend the bath life of VIGON® US, filtration is recommended.

Safety data sheet

Available Process - Optimization - Products

To ensure a stable running cleaning process, it is important to monitor cleaning agent concentration and regular bath treatment. For VIGON® US a variety of process support products are available:



Concentration measurement:

- ZESTRON® EYE for automated real-time concentration monitoring providing 100% traceability,
- ZESTRON® Bath Analyzer 10 a manual test method for fast and reliable checks on cleaner concentration.



Cleaning agent regeneration:

Adsorber HM1 allows for the adsorption of heavy metals in your cleaning process when VIGON®
US is applied.