MultiEx® VR-SP

Multifunctional aqueous alkaline broadband cleaning detergent for colophomium, flux and solder paste

Part No. 090678-RM25 // Contents: 25 l

Application overview

Most suitable	Most suitable	Optional suitable	Optional suitable	Optional suitable
Assembled PCBs	Stencils	Solder frames	ESD boxes	Condensation traps
Hybrids	Screens, PumpPrints	Solder carriers	Containers	Filters
Misprints	Misprints	Solder masks	Magazines	Steel sheets

Technical data

Color	transparent
Odor	specific
ph-value at 20 °C	11,2
Melting point	-5 °C
Initial boiling point and range	100° C
Flash point	not determined
Density at 20 °C	0,996 g / cm³
Water solubility	fully soluble
Viscosity (kin.) at 20 °C	23 mm² / s
Application	pure
Application temperature	20 - 45 °C
Storing frost-free	in original container
EWC key number	070699
CLP / GHS	GHS 07

MultiEx® VR-SP is a broadband standard PCB cleaner (single phase) and cleans particularly colophonium and flux as well as solder paste quickly, thoroughly and with best material protection from PCBs, ceramic substrates, misprints, stencils, solder frames, magazines, aluminium, stainless steel.

ReadyMix for direct use in a cleaning system.

Applications

SMD adhesive	o
Solder paste	++
Low voc flux	++
Colophonium flux	++
Waterbased flux	++
Solder paste (soldered)	++
Oil / Grease	++
Spray-in-air systems	++
Spray-in-immersion systems	++
Air-in-immersion systems	++
Ultrasonic systems	+
Manual application	o

++ = ideal for application, + = recommended, o = optionally applicable, — = not recommended

Note: The spreadsheet only shows a general overview of the product specifications.

Cleaning tests are reasonable to determine the optimum cleaner configuration. Such tests may be carried out directly at the **kolb** demonstration center in Willich / Germany or Shanghai / China or can be initiated by contacting your local **kolb** partner..

All rights for changes reserved that lead to technical improvement are subject to change without notice.
© kolb GmbH 2017

kolb Cleaning Technology GmbH • Karl-Arnold-Str.12 • D - 47877 Willich • Phone +49 (0) 2154 9479 - 38 • Fax: +49 (0) 2154 9479 - 47 • e-mail: info@kolb-ct.com • www.kolb-ct.com

MultiEx® VR-SP

Multifunctional aqueous alkaline broadband cleaning concentrate for colophomium, flux and solder paste

Part No. 090678-CN25 // Contents: 25 l

Application overview

Most suitable	Most suitable	Optional suitable	Optional suitable	Optional suitable
Assembled PCBs	Stencils	Solder frames	ESD boxes	Condensation traps
Hybrids	Screens, PumpPrints	Solder carriers	Containers	Filters
Misprints	Misprints	Solder masks	Magazines	Steel sheets

Technical data

Color	transparent
Odor	specific
ph-value at 20 °C	11,2
Melting point	-5 °C
Initial boiling point and range	100° C
Flash point	not determined
Density at 20 °C	0,996 g / cm³
Water solubility	fully soluble
Viscosity (kin.) at 20 °C	23 mm² / s
Application	effective from 10 %
Application temperature	20 - 45 °C
Storing frost-free	in original container
EWC key number	070699
CLP / GHS	GHS 07

MultiEx® VR-SP is a broadband standard PCB cleaning (single phase) concentrate and cleans particularly colophonium and flux as well as solder paste quickly, thoroughly and with best material protection from PCBs, ceramic substrates, misprints, stencils, solder frames, magazines, aluminium, stainless steel.

Cleaning concentrate for mixing with tap water.

Applications

SMD adhesive	o
Solder paste	++
Low voc flux	++
Colophonium flux	++
Waterbased flux	++
Solder paste (soldered)	++
Oil / Grease	++
Spray-in-air systems	++
Spray-in-immersion systems	++
Air-in-immersion systems	++
Ultrasonic systems	+
Manual application	o

++ = ideal for application, + = recommended, o = optionally applicable, — = not recommended

Note: The spreadsheet only shows a general overview of the product specifications.

Cleaning tests are reasonable to determine the optimum cleaner configuration. Such tests may be carried out directly at the **kolb** demonstration center in Willich / Germany or Shanghai / China or can be initiated by contacting your local **kolb** partner..

All rights for changes reserved that lead to technical improvement are subject to change without notice. © kolb GmbH 2017

kolb Cleaning Technology GmbH • Karl-Arnold-Str.12 • D - 47877 Willich • Phone +49 (0) 2154 9479 - 38 • Fax: +49 (0) 2154 9479 - 47 • e-mail: info@kolb-ct.com • www.kolb-ct.com

MultiEx® VR-HPA

Multifunctional aqueous alkaline broadband cleaning detergent for colophonium, flux and solder paste

Part No. 090664-RM25 // Contents: 25 l

LONGLIFE » pH buffered «
PowerSpray®
SaltFree
AirFlow®
LeadFree
UltraSonic
REACH Compliant
TernarySeq®
TSCA Compliant

Application overview

Most suitable	Most suitable	Optional suitable	Optional suitable	Optional suitable
Assembled PCBs	Stencils	Solder frames	ESD boxes	Condensation traps
Hybrids	Screens, PumpPrints	Solder carriers	Containers	Filters
Misprints	Misprints	Solder masks	Magazines	Steel sheets

Technical data

Color	transparent
Odor	specific
pH-value at 20 °C	11,0
Melting point	0 °C
Initial boiling point and range	100 °C
Flash point	not determined
Density at 20 °C	0,965 g / cm³
Water solubility	fully soluble
Viscosity (kin.) at 20 °C	40 mm²/ s
Application	pure
Application temperature	20 - 45 °C
Storing frost-free	in original container
EWC key number	070699
CLP / GHS	GHS07

MultiEx® VR-HPA is a broadband cleaner for PCBs with sensitive components (e.g. aluminium) and cleans particularly colophonium and flux as well as solder paste quickly, thoroughly and with best material protection from PCBs, ceramic substrates, misprints, stencils, solder frames, magazines, aluminium, stainless steel.

Detergent ReadyMix for direct use in a cleaning system.

Applications

SMD adhesive	o
Solder paste	++
Low voc flux	++
Colophonium flux	++
Waterbased flux	++
Solder paste (soldered)	++
Oil / Grease	++
Spray-in-air systems	++
Spray-in-immersion systems	++
Air-in-immersion systems	++
Ultrasonic systems	+
Manual application	o

++ = ideal for application, + = recommended, o = optionally applicable, — = not recommended

Note: The spreadsheet only shows a general overview of the product specifications.

Cleaning tests are reasonable to determine the optimum cleaner configuration. Such tests may be carried out directly at the **kolb** demonstration center in Willich / Germany or Shanghai / China or can be initiated by contacting your local **kolb** partner..

All rights for changes reserved that lead to technical improvement are subject to change without notice.
© kolb GmbH 2012

kolb Cleaning Technology GmbH • Karl-Arnold-Str.12 • D - 47877 Willich • Phone +49 (0) 2154 9479 - 38 • Fax: +49 (0) 2154 9479 - 47 • e-mail: info@kolb-ct.com • www.kolb-ct.com

MultiEx® VR-18

Multifunctional aqueous alkaline broadband ready to use cleaning detergent for colophomium, flux, paste and adhesive

Part No. 090655-RM25 // Contents: 25 l

Application overview

Most suitable	Most suitable	Optional suitable	Optional suitable	Optional suitable
Assembled PCBs	Stencils	Solder frames	ESD boxes	Condensation traps
Hybrids	Screens, PumpPrints	Solder carriers	Containers	Filters
Misprints	Misprints	Solder masks	Magazines	Steel sheets

Technical data

Color	transparent
Odor	specific
ph-value at 20 °C	11,2 - 50g / 1 l water
Melting point	-5 °C
Initial boiling point and range	100° C
Auto-ignition temperature	not applicable
Density at 20 °C	0,996 g / cm³
Water solubility	fully soluble
Viscosity (kin.) at 20 °C	23 mm² / s
Application	pure
Application temperature	20 - 45 °C
Storing frost-free	in original container
EWC key number	070699
CLP / GHS	GHS 07

MultiEx® VR-18 is a special cleaner for hard to clean fluxes and PCBs (e.g. after several soldering processes) and cleans particularly colophonium and flux as well as solder paste and adhesive quickly, thoroughly and with best material protection from PCBs, ceramic substrates, misprints, stencils, solder frames, magazines, aluminium, stainless steel.

ReadyMix for direct use in a cleaning system.

Applications

SMD adhesive	++
Solder paste	++
Low voc flux	++
Colophonium flux	++
Waterbased flux	++
Solder paste (soldered)	++
Oil / Grease	++
Spray-in-air systems	++
Spray-in-immersion systems	++
Air-in-immersion systems	++
Ultrasonic systems	+
Manual application	o

++ = ideal for application, + = recommended, o = optionally applicable, — = not recommended

Note: The spreadsheet only shows a general overview of the product specifications.

Cleaning tests are reasonable to determine the optimum cleaner configuration. Such tests may be carried out directly at the **kolb** demonstration center in Willich / Germany or Shanghai / China or can be initiated by contacting your local **kolb** partner..

All rights for changes reserved that lead to technical improvement are subject to change without notice.
© kolb GmbH 2017

kolb Cleaning Technology GmbH • Karl-Arnold-Str.12 • D - 47877 Willich • Phone +49 (0) 2154 9479 - 38 • Fax: +49 (0) 2154 9479 - 47 • e-mail: info@kolb-ct.com • www.kolb-ct.com