

EMIL  OTTO



ALCOHOL-BASED
FLUXES

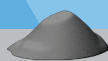
FLUX- AND SURFACE TECHNOLOGY

PRODUCTS FOR THE ELECTRONIC INDUSTRY

EO-B-001A (Multiflux)	2,2 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	di-carboxylic acids, low resin content _____	4
EO-B-001B (Multiflux)	3,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	di-carboxylic acids, low resin content _____	4
EO-B-001C (Multiflux)	4,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	di-carboxylic acids, low resin content _____	5
EO-B-002A (Multiflux)	2,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	di-carboxylic acids, very low resin content _____	5
EO-B-002B (Multiflux)	3,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	di-carboxylic acids, very low resin content _____	6
EO-B-002C (Multiflux)	4,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	di-carboxylic acids, very low resin content _____	6
EO-B-004 (Multiflux)	1,8 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	di-carboxylic acids, very low resin content _____	7
EO-B-006A (Multiflux)	2,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	non-halogen, di-carboxylic acids, no resin content _____	7
EO-B-006B (Multiflux)	3,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	non-halogen, di-carboxylic acids, no resin content _____	8
EO-B-006C (Multiflux)	4,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	non-halogen, di-carboxylic acids, no resin content _____	8
EO-B-007A (Multiflux)	1,9 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	di-carboxylic acids, very low resin content _____	9
EO-B-007B (Multiflux)	3,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	di-carboxylic acids, very low resin content _____	9
EO-B-007C (Multiflux)	4,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	di-carboxylic acids, very low resin content _____	10
EO-B-008 (Multiflux)	4,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	Di-Carbonsäuren, geringer Harzanteil _____	10
EO-B-009A (Multiflux)	2,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	di-carboxylic acids, low resin content _____	11
EO-B-009B (Multiflux)	3,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	non-halogen, di-carboxylic acids, no resin content _____	11
EO-B-009C (Multiflux)	4,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	non-halogen, di-carboxylic acids, no resin content _____	12
EO-B-010A (Multiflux)	2,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	Di-carboxylic acids, synthetic resin complex _____	12
EO-B-010B (Multiflux)	2,6 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	Di-carboxylic acids, synthetic resin complex _____	13
EO-B-010C (Multiflux)	4,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	Di-carboxylic acids, synthetic resin complex _____	13
EO-B-013 (Multiflux)	4,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	halogen-free (di-)carboxylic acid complex _____	14
PM-334	3,0 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	di-carboxylic acids, minimal resin content _____	14
SSK-15	15,0 %	Manual- and repair soldering, dip soldering	di-carboxylic acids, resins _____	15
HR/D-110	5,8 %	Wave- and selective soldering, manual- and repair soldering, dip soldering	di-carboxylic acids, resins _____	15
S-250/FRO	2,5 %	Wave soldering (spray fluxing)	di-carboxylic acids with synthetic resin _____	16
S-250/FR	2,5 %	Wave soldering (spray- and foam fluxing)	synthetic resin with di-carboxylic acids _____	16
GSP-2533/OVAP	2,5 %	Wave soldering (spray fluxing)	synthetic resin with di-carboxylic acids _____	17
GSP-2533/RX	2,5 %	Wave soldering (spray- and foam fluxing)	synthetic resin with di-carboxylic acids _____	17
Solder Tincture WFF	ca. 38 %	Manual-, repair- and dip soldering, soldering on ceramic substrates, strand tinning	Balsamic resin, di-carboxylic acids, halogenated amine _____	18
RS-4004	3,5 %	Wellen- und Selektivlöten, Hand- und Reparaturlöten, Tauchlöten	di-carboxylic acids, minimal resin content _____	18



Canister



Granulate



Metering pen



Metering bottle

Alcohol based flux

Alcohol-based fluxes have a very wide range of applications. The fluxes have very good soldering properties, in particular with the step-through and the wetting of the circuit board. The process window is very wide, with high thermal stability and good process activity over a long time interval. The residue behavior is also very good, the circuit boards are very clean after the soldering process.

EO-B-001A

Cat.-No. 2070

No clean, alcohol-based flux, di-carboxylic acids, minimal resin content, halogen-free (WEEE/RoHS conformant)
ISO-9454: 2231 // DIN EN 61190-1-1: LO (ORLO)

Like all multi-fluxes, the EO-B-001A can be used for wave (spray fluxes) as well as for selective, manual, and dip soldering. The A variant has a low 2.2% solids content. This variant was developed especially for full-tunnel nitrogen applications. It features a wide processing window and great temperature stability to guarantee a better soldering result than that obtained with traditional adipic acid solutions under full nitrogen. Practice has shown, that no washing is needed for PCBA properly soldered with EO-B-001A.

Customer added value:

- Wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Available as concentrate (granulate)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)
- Recommended for N2-systems
- Low solids content



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless to light yellow, clear
Solids content:	2,2 %
Density at 20 °C:	0,793 (+/- 0,003) g/ml
Acid number:	14–16 mg KOH/g
Activators:	di-carboxylic acids, low resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units



20 l



granulate for 20 l



metering pen



metering bottle

EO-B-001B

Cat.-No. 6069

No clean, alcohol-based flux, di-carboxylic acids, minimal resin content, halogen-free (WEEE/RoHS conformant)
ISO-9454: 2231 // DIN EN 61190-1-1: LO (ORLO)

Like all multi-fluxes, the EO-B-001B can be used for wave (spray fluxes) as well as for selective, manual, and dip soldering. The B variant complies with the standard version while having a 3% solids content. It is an all-round version. Soldering results and cleanliness are very good. The B variant is also offered as a metering pen or metering bottle. It is thus ideal for manual and repair soldering. Practice has shown, that no washing is needed for PCBA properly soldered with EO-B-001B.

Customer added value:

- Wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Available as concentrate (granulate)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless to light yellow, clear
Solids content:	3,0 %
Density at 20 °C:	0,796 (+/-0,003) g/ml
Acid number:	18–21 mg KOH/g
Activators:	di-carboxylic acids, low resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units



20 l



granulate for 20 l



metering pen



metering bottle

EO-B-001C

Cat.-No. 2069

No clean, alcohol-based flux, di-carboxylic acids, minimal resin content, halogen-free (WEEE/RoHS conformant)
ISO-9454: 2231 // DIN EN 61190-1-1: LO (ORLO)

Like all multi-fluxes, the EO-B-001C can be used for wave (spray fluxes) as well as for selective, manual, and dip soldering. The C variant has a 4% solids content. It was specially developed for power electronics where large components have to be soldered at low mounting densities. EO-B-001C has also established itself for special applications in which greater amounts of flux are needed.

Practice has shown, that no washing is needed for PCBA properly soldered with EO-B-001C.

Customer added value:

- Wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Available as concentrate (granulate)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless to light yellow, clear
Solids content:	4,0 %
Density at 20 °C:	0,796 (+/- 0,003) g/ml
Acid number:	27-32 mg KOH/g
Activators:	di-carboxylic acids, low resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units



20 l



granulate for 20 l



metering pen



metering bottle

EO-B-002A

Cat.-No. 6013

No Clean-Flussmittel auf Alkoholbasis, Di-Carbonsäuren, sehr geringer Harzanteil, halogenfrei (WEEE/RoHS konform)
ISO-9454: 2231 // DIN EN 61190-1-1: LO (ORLO)

Like all multi-fluxes, the EO-B-002A can be used for wave (spray fluxes) as well as for selective, manual, and dip soldering. EO-B-002A is a flux intended for wave soldering with an alcohol-based solution system and halogen-free activators. The A variant has a low 2.0% solids content. This variant was developed especially for full-tunnel nitrogen applications. It features a wide processing window and great temperature stability to guarantee a better soldering result than that obtained with traditional adipic acid solutions under full nitrogen.

Customer added value:

- Wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Available as concentrate (granulate)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)
- Recommended for N₂-systems
- Low solids content



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless to light yellow, clear
Solids content:	2,0 %
Density at 20 °C:	0,794 (+/- 0,003) g/ml
Acid number:	16-19 mg KOH/g
Activators:	di-carboxylic acids, very low resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units



20 l



granulate for 20 l



metering pen



metering bottle

EO-B-002B

Cat.-No. 6002

No clean, alcohol-based flux, di-carboxylic acids, minimal resin content, halogen-free (WEEE/RoHS conformant)
ISO-9454: 2231 // DIN EN 61190-1-1: LO (ORLO)

Like all multi-fluxes, the EO-B-002B can be used for wave (spray fluxes) as well as for selective, manual, and dip soldering. The B variant is the standard version with a 3% solids content. It is an all-round version. Soldering results and cleanliness are very good. Even on pure copper surfaces good results are achieved— for instance when processing LEDs on heat sinks. Practice has shown, that no washing is needed for PCBA properly soldered with EO-B-002B.

The B variant is also offered as a metering pen or metering bottle. It is thus ideal for manual and repair soldering.

Customer added value:

- Wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Available as concentrate (granulate)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless to light yellow, clear
Solids content:	3,0 %
Density at 20 °C:	0,796 +/- 0,003 /ml
Acid number:	23–26 mg KOH/g
Activators:	di-carboxylic acids, very low resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units



20 l



granulate for 20 l



metering pen



metering bottle

EO-B-002C

Cat.-No. 6014

No clean, alcohol-based flux, di-carboxylic acids, minimal resin content, halogen-free (WEEE/RoHS conformant)
ISO-9454: 2231 // DIN EN 61190-1-1: LO (ORLO)

Like all multi-fluxes, the EO-B-002C can be used for wave (spray fluxes) as well as for selective, manual, and dip soldering. The C variant has a 4% solids content. It was especially developed for power electronics where large components have to be soldered at low mounting densities. EO-B-002C has also established itself in special applications in which greater amounts of flux are needed.

Practice has shown, that no washing is needed for PCBA properly soldered with EO-B-002C.

Customer added value:

- Wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Available as concentrate (granulate)
- Broad process window (very high thermal stability, very high activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless to light yellow, clear
Solids content:	4,0 %
Density at 20 °C:	0,797 (+/- 0,003) g/ml
Acid number:	31–35 mg KOH/g
Activators:	di-carboxylic acids, very low resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units



20 l



granulate for 20 l



metering pen



metering bottle

EO-B-004

Cat.-No. 6005

No clean, alcohol-based flux, synthetic resin, di-carboxylic acids, halogen-free (WEEE/RoHS conformant)
ISO-9454: 1231 // DIN EN 61190-1-1: L0 (RELO)

EO-B-004 is a multiflux intended for wave (spray fluxes), selective, immersion, or manual soldering processes, it consists of alcohol-based solvents, synthetic resin and halogen-free activators. With a 1.8% solids content this variant was developed especially for full-tunnel nitrogen applications. It features a wide processing window and great temperature stability to guarantee a better soldering result than that obtained with traditional adipic acid solutions under full nitrogen. Soldering results and cleanliness are very good. Practice has shown, that no washing is needed for PCBA properly soldered with EO-B-004.

Customer added value:

- Wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Broad process window (very high thermal stability, good activity over a long interval)
- Recommended for N₂-systems
- Very low solids content
- High surface resistance of flux residues (SIR) (even with selective special testing)



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless to light yellow, clear
Solids content:	1,8 %
Density at 20 °C:	0,793 (+/- 0,003) g/ml
Acid number:	15–18 mg KOH/g
Activators:	di-carboxylic acids, very low resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units

20 l



metering pen



metering bottle

EO-B-006A

Cat.-No. 6061

Flux for wave- and selective-soldering processes with halogen-free activators – WEEE/RoHS-compliant
ISO-9454: 2131 // DIN EN 61190-1-1: L0 (ORLO)

EO-B-006A is a NO-CLEAN flux, formulated to be free of halogen and resin/rosin. It is suitable for usage in the wave-selective domain as well as for manual-soldering processes. EO-B-006A leaves behind no staining and sticky residues. The activators are designed for higher temperatures without hindering their effectiveness. It can be applied via all of the usual application methods (except for foam fluxing). The solids content amounts to 2%.

Customer added value:

- Wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Available as concentrate (granulate)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)
- Recommended for N₂-systems
- Very low solids content



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless, clear
Solids content:	2,0 %
Density at 20 °C:	0,794 (+/- 0,003) g/ml
Acid number:	15–18 mg KOH/g
Activators:	non-halogen, di-carboxylic acids, no resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	24 months

Packaging units

20 l



granulate for 20 l



metering pen



metering bottle

EO-B-006B

Cat.-No. 6023

Flux for wave- and selective-soldering processes with halogen-free activators – WEEE/RoHS-compliant
ISO-9454: 2131 // DIN EN 61190-1-1: LO (ORLO)

EO-B-006B is a NO-CLEAN flux, formulated to be free of halogen and resin/rosin. It is suitable for usage in the wave-selective domain as well as for manual-soldering processes. EO-B-006B leaves behind no staining and sticky residues. The activators are designed for higher temperatures without hindering their effectiveness. It can be applied via of the usual application methods (except for foam fluxing). The solids content amounts to 3%.

Customer added value:

- Wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Available as concentrate (granulate)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless, clear
Solids content:	3,0 %
Density at 20 °C:	0,795 (+/- 0,003) g/ml
Acid number:	23–26 mg KOH/g
Activators:	non-halogen, di-carboxylic acids, no resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	24 months

Packaging units



20 l



granulate for 20 l



metering pen



metering bottle

EO-B-006C

Cat.-No. 6062

Flux for wave- and selective-soldering processes with halogen-free activators – WEEE/RoHS-compliant
ISO-9454: 2131 // DIN EN 61190-1-1: LO (ORLO)

EO-B-006C is a NO-CLEAN flux, formulated to be free of halogen and resin/rosin. It is suitable for use in the wave-selective domain as well as for manual-soldering processes. EO-B-006B leaves behind no staining and sticky residues. The activators are additionally designed for higher temperatures without impairing their effectiveness. Application can proceed via all of the usual application methods (except for foam fluxing). The solids content amounts to 4%.

Customer added value:

- Wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Available as concentrate (granulate)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless, clear
Solids content:	4,0 Gew.-%
Density at 20 °C:	0,796 (+/- 0,003) g/ml
Acid number:	32–35 mg KOH/g
Activators:	non-halogen, di-carboxylic acids, no resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	24 months

Packaging units



20 l



granulate for 20 l



metering pen



metering bottle

EO-B-007A

Cat.-No. 6016

No clean, alcohol-based flux, di-carboxylic acids, very low resin content, halogen-free (WEEE/RoHS conformant)
ISO-9454: 2231 // DIN EN 61190-1-1: LO (ORLO)

Like all multi-fluxes, the EO-B-007A can be used for wave (spray fluxes) as well as for selective, manual, and dip soldering. The A version has a low 1.9% solids content. This variant was developed especially for full-tunnel nitrogen applications. It features a wide processing window and great temperature stability to guarantee a better soldering result than that obtained with traditional adipic acid solutions under full nitrogen. Soldering results and cleanliness are very good.

Practice has shown, that no washing is needed for PCBA properly soldered with EO-B-007A.

Customer added value:

- Wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Available as concentrate (granulate)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)
- Recommended for N₂-systems
- Very low solids content



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless to light yellow, clear
Solids content:	1,9 %
Density at 20 °C:	0,793 (+/-0,003) g/ml
Acid number:	15-18 mg KOH/g
Activators:	di-carboxylic acids, very low resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units:



20 l



granulate for 20 l



metering pen



metering bottle

EO-B-007B

Cat.-No. 6017

No clean, alcohol-based flux, di-carboxylic acids, very low resin content, halogen-free (WEEE/RoHS conformant)
ISO-9454: 2231 // DIN EN 61190-1-1: LO (ORLO)

Like all multi-fluxes, the EO-B-007B can be used for wave (spray fluxes) as well as for selective, manual, and dip soldering. The B variant is the standard version with a 3% solids content. It is an all-round version. The B variant is offered as a metering pen or metering bottle. It is thus ideal for manual and repair soldering.

Customer added value:

- Wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Available as concentrate (granulate)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless to light yellow, clear
Solids content:	3,0 %
Density at 20 °C:	0,796 (+/-0,003) g/ml
Acid number:	22-25 mg KOH/g
Activators:	di-carboxylic acids, very low resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units:



20 l



granulate for 20 l



metering pen



metering bottle

EO-B-007C

Cat.-No. 6018

No clean, alcohol-based flux, di-carboxylic acids, very low resin content, halogen-free (WEEE/RoHS conformant)
ISO-9454: 2231 // DIN EN 61190-1-1: LO (ORLO)

Like all multi-fluxes, the EO-B-007C can be used for wave (spray fluxes) as well as for selective, manual, and dip soldering. The C variant has a 4% solids content. It was especially developed for power electronics where large components have to be soldered at low mounting densities.

Customer added value:

- Wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Available as concentrate (granulate)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless to light yellow, clear
Solids content:	4,0 %
Density at 20 °C:	0,797 +/- 0,003 g/ml
Acid number:	30-36 mg KOH/g
Activators:	di-carboxylic acids, very low resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units



20 l



granulate for 20 l



metering pen



metering bottle

EO-B-008

Cat.-No. 6019

No clean, alcohol-based flux, synthetic resin, di-carboxylic acids, halogen-free (WEEE/RoHS conformant)
ISO-9454: 1231 // DIN EN 61190-1-1: RELO

At 4%, EO-B-008 has a high solids content. EO-B-008 was especially developed for short wave-soldering systems where the circuit board spends dwell time in the preheating phase. The subsequent soldering procedure occurs in a very active wave. Thanks to EO-B-008, the assembled printed board shows very good soldering results with a very clean surface after the soldering procedure.

Customer added value:

- Very good soldering properties (capillarity, wetting)
- Broad process window (high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless to light yellow, clear
Solids content:	4,0 %
Density at 20 °C:	0,796 +/-0,004 g/ml
Acid number:	32-35 mg KOH/g
Activators:	di-carboxylic acids, low resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	6 months

Packaging units



20 l



metering pen



metering bottle

EO-B-009A

Cat.-No. 6063

Flux for wave- and selective-soldering processes with halogen-free activators – WEEE/RoHS-compliant
ISO-9454: 2231 // DIN EN 61190-1-1: LO (ORLO)

EO-B-009A is a NO-CLEAN flux, formulated to be free of halogen and resin/rosin. This flux was especially designed for selective-soldering processes and is just as usable for the wave-soldering area. It can be applied via all usual application methods (except for foam fluxing). EO-B-009A has a solids content of 2%.

Customer added value:

- Wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Available as concentrate (granulate)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)
- Recommended for N2-systems
- Very low solids content



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless, clear
Solids content:	2,0 %
Density at 20 °C:	0,793 (+/- 0,003) g/ml
Acid number:	17–20 mg KOH/g
Activators:	di-carboxylic acids, no resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	24 months

Packaging units:



20 l



granulate for 20 l



metering pen



metering bottle

EO-B-009B

Cat.-No. 6029

Flux for wave- and selective-soldering processes with halogen-free activators – WEEE/RoHS-compliant
ISO-9454: 2231 // DIN EN 61190-1-1: LO (ORLO)

EO-B-009B is a NO-CLEAN flux, formulated to be free of halogen and resin/rosin. This flux was especially designed for selective-soldering processes but is just as usable for the wave-soldering area. It can be applied via the usual application methods (except for foam fluxing). EO-B-009B has a solids content of 3%.

Customer added value:

- Wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Available as concentrate (granulate)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless, clear
Solids content:	3,0 %
Density at 20 °C:	0,795 (+/- 0,003) g/ml
Acid number:	25–28 mg KOH/g
Activators:	non-halogen, di-carboxylic acids, no resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	24 months

Packaging units:



20 l



granulate for 20 l



metering pen



metering bottle

EO-B-009C

Cat.-No. 6064

Flux for wave- and selective-soldering processes with halogen-free activators – WEEE/RoHS-compliant
ISO-9454: 2231 // DIN EN 61190-1-1: LO (ORLO)

EO-B-009C is a NO-CLEAN flux, formulated to be free of halogen and resin/rosin. This flux was especially designed for selective-soldering processes but is just as usable for the wave-soldering area. It can be applied via the usual application methods (except for foam fluxing). EO-B-009C is strongly activated and has a solids content of 4%.

Customer added value:

- Wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Available as concentrate (granulate)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless, clear
Solids content:	3,0 %
Density at 20 °C:	0,795 (+/- 0,003) g/ml
Acid number:	25–28 mg KOH/g
Activators:	non-halogen, di-carboxylic acids, no resin
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	24 months

Packaging units



20 l



granulate for 20 l



metering pen



metering bottle

EO-B-010A

Cat.-No. 6089

Flux for wave- and selective soldering processes with halogen-free activators, - WEEE /RoHS-conformant (OSP-compatible)
ISO-9454: 1231 // DIN EN 61190-1-1: LO (RELO)

Recommendations for the processing of this flux:

This flux is very versatile in use, OSP-compatible, good results have been achieved both with manual-, wave- and selective soldering. The general rule is to basically apply as little flux as possible, is also applicable for this product. Spray fluxing: With the dosing option quantify of flux, first set to 30–40 ml/min., observe the even distribution of flux on the circuit board (if necessary test with heat-sensitive paper) and then adjust to the optimal quantity. Preheating: With “simple” circuit boards a preheating temperature of 80–110 °C is recommended on the top side of the circuit board, with “more complex” boards a temperature of 100–130 °C. It can be used both in solder systems containing lead as well as lead-free solder systems.



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	Colourless pale yellow, clear liquid
Solids content:	2,0 %
Density at 20 °C:	0,793 (+/- 0,003) g/ml
Acid number:	14–16 mg KOH/g
Activators:	Di-carboxylic acids, synthetic resin complex
Solvents:	Short-chain alcohols
Flash point:	12 °C

Packaging units



20 l



metering pen



metering bottle

EO-B-010B

Cat.-No. 6080

Flux for wave- and selective soldering processes
with halogen-free activators, - WEEE /RoHS-conformant (OSP-compatible)
ISO-9454: 1231 // DIN EN 61190-1-1: LO (RELO)

Recommendations for the processing of this flux:

This flux is very versatile in use, OSP-compatible, good results have been achieved with manual-, wave- and selective soldering. The general rule, to apply as little flux as possible, is also applicable for this product. Spray fluxing: With the dosing option quantify the flux, first set to 30-40 ml/min., observe the even distribution of flux on the circuit board (if necessary test with heat-sensitive paper) and then adjust to the optimal quantity. Preheating: With "simple" circuit boards a preheating temperature of 80-110 °C is recommended on the top side of the circuit board, with "more complex" boards a temperature of 100-130 °C. It can be used both in solder systems containing lead as well as lead-free solder systems.



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colourless pale yellow, clear liquid
Solids content:	2,6 %
Density at 20 °C:	0,795 (+/- 0,003) g/ml
Acid number:	17-21 mg KOH/g
Activators:	di-carboxylic acids, synthetic resin complex
Solvents:	short-chain alcohols
Flash point:	12 °C

Packaging units:



canister



metering pen



metering bottle

EO-B-010C

Cat.-No. 6090

Flux for wave- and selective soldering processes
with halogen-free activators, - WEEE /RoHS-conform [OSP compatible]
ISO-9454: 1231 // DIN EN 61190-1-1: LO (RELO)

Recommendations for the processing of this flux:

This flux is very versatile in use, OSP compatible, good results are produced with manual-, wave- and selective soldering. The general rule to select as little of the applied flux as possible, also applies for this product. Spray fluxing: With the dosing option quantify the flux to 20-30 ml/min., observe the even distribution of flux on the circuit board (if necessary test with heat-sensitive paper) and then adjust to the optimal quantity. Preheating: For "simple" circuit boards a preheating temperature of 80-110 °C is recommended on the top side of the circuit board, for "more complex" boards 100-130 °C. The application can take place both in leaded as well as lead-free solder systems.



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless-light yellow, clear liquid
Solids content:	4,0 %
Density at 20 °C:	0,796 (+/- 0,003) g/ml
Acid number:	27-32 mg KOH/g
Activators:	di-carboxylic acids, synthetic resin complex
Solvents:	short-chain alcohols
Flash point:	12 °C

Packaging units:



canister with 5 and 20 litres – larger containers also possible



metering pen



metering bottle

EO-B-013

Cat.-No. 6088

Flux for wave- and selective soldering processes with halogen-free activators, WEEE /RoHS-compliant, ISO-9454: 1231 // DIN EN 61190-1-1: LO (RELO)

EO-B-013 is a powerful NO-CLEAN flux. Alcohol-based with di-carboxylic acids and synthetic resin. This flux has been developed for wave processes, as well as for dip soldering processes and strand tinning. It can be applied with all common application processes (except foaming).

Recommendations for the processing of this fluxing agent:

This flux is very versatile in use, good results have been achieved both with wave soldering and special applications. The general rule to apply as little quantity of flux as possible, is also applicable for this product. Spray fluxes: With the dosing option quantify the flux, first set to 15 – 30 ml/min., observe the even distribution of flux on the circuit board (if necessary test with heat-sensitive paper) and then adjust to the optimal quantity. Preheating: With "simple" circuit boards a preheating temperature of 80 – 110 °C is recommended on the top side of the circuit board, with "more complex" boards from 100 – 130 °C. The flux can be used both in systems containing lead as well as those that are lead-free.

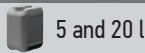


The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless pale-yellow, clear liquid 4
Solids content:	4,0 %
Density at 20 °C:	0,796 (+/- 0,004) g/ml
Acid number:	32–35 mg KOH/g
Activators:	halogen-free (di-)carboxylic acid complex
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units



5 and 20 l



metering pen



metering bottle

PM-334

Cat.-No. 2068

No clean alcohol-based flux, minimal resin content, di-carboxylic acids, halogen-free (WEEE/RoHS conformant) ISO-9454: 2231 // DIN EN 61190-1-1: LO (ORLO)

The PM-334 soldering flux can be used for a wide range of applications. It fulfills all the requirements for use with wave, selective and manual soldering as well as dip tinning. In practice it is used mainly in manual and repair soldering and stranded wire tinning. In addition to canister products, soldering flux pens and dosing bottles are also available.

Customer added value:

- Very wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless to light yellow, clear
Solids content:	3,0 %
Density at 20 °C:	0,796 (+/- 0,003) g/ml
Acid number:	18–21 mg KOH/g
Activators:	di-carboxylic acids, minimal resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units



20 l



optionally available as dispenser bottle or flux pen

SSK-15

Cat.-No. 2041

Alcohol-based flux, high resin content, di-carboxylic acids, halogen-free (WEEE/RoHS conformant)
ISO-9454: 1131 // DIN EN 61190-1-1: L0 (ROLO)

The SSK-15 soldering flux has a high proportion of solids and contains organic, halogen-free activation additives. The soldering flux can be applied using all conventional application methods, whereby spray fluxing is not advisable due to the high solids content. The main areas of application are in manual, repair and dip soldering. Due to the high resin content, the soldering flux residues are encapsulated.

Customer added value:


- Wide range of applications
- Very good soldering properties (capillarity, wetting)
- Broad process window (high thermal stability, good activity over a long interval)



The picture may differ from the original product.

Technical Data:

Application area:	Manual- and repair soldering, dip soldering
Appearance/smell:	yellowish to amber, clear
Solids content:	15,0 %
Density at 20 °C:	0,830 (+/-0,005) g/ml
Acid number:	45–55 mg KOH/g
Activators:	di-carboxylic acids, resins
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units:  20 l

HR/D-110

Cat.-No. 2080

No clean, alcohol-based flux, high resin content, di-carboxylic acids, halogen-free (WEEE/RoHS conformant)
ISO-9454: 1231 // DIN EN 61190-1-1: L0 (RELO)

The soldering flux, HR/D-110, is an established manual and dip soldering flux which also achieves very good results in special applications such as hot bar reflow soldering. It can be used for all common applications. Due to a higher proportion of solids with a relatively high resin content, it creates soldering-related reliability.

Customer added value:

- Very wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Broad process window (very high thermal stability, very high activity over a long interval)
- Very good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	yellowish to brownish
Solids content:	5,8 %
Density at 20 °C:	0,8 (+/-0,005) g/ml
Acid number:	25–28 mg KOH/g
Activators:	di-carboxylic acids, resins
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units:  20 l  optionally available as dispenser bottle or flux pen

S-250/FRO

Cat.-No. 6400

No clean, alcohol-based flux, synthetic resin, di-carboxylic acids, halogen-free (WEEE/RoHS conformant)
ISO-9454: 1231 // DIN EN 61190-1-1: LO (RELO)

S-250/FRO is universally suitable for wave soldering. It is used successfully for a wide range of systems and wave types in both leaded and lead-free processes. Its high temperature stability and very good activity over a wide temperature range ensures a wide processing window with best soldering results. The surfaces are very clean after soldering, the SIR is above the standards.

S-250/FRO is unsuitable for foam and spray fluxing and not recommended for selective and manual soldering (see also product matrix).

Practice has shown, that no washing is needed for PCBA properly soldered with S-250/FRO. The IC test with needle adapters is generally not affected.

Customer added value:

- Very good soldering properties (capillarity, wetting)
- Broad process window (very high thermal stability, good activity over a large interval)
- Very good residue behaviour (very clean, high SIR)



The picture may differ from the original product.

Technical Data:

Application area:	Wave soldering (spray fluxing)
Appearance/smell:	colorless to light yellow, clear
Solids content:	2,5 %
Density at 20 °C:	0,794 (+/- 0,003) g/ml
Acid number:	21-25 mg KOH/g
Activators:	di-carboxylic acids with synthetic resin
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units:



20 l

S-250/FR

Cat.-No. 6420

No clean, alcohol-based flux, synthetic resin, di-carboxylic acids, halogen-free (WEEE/RoHS conformant)
ISO-9454: 1231 // DIN EN 61190-1-1: LO (RELO)

S-250/FR is universally suitable for wave soldering. It features special additives to ensure a stable, fine-pored foam head. It is used successfully for a wide range of systems and wave types in both leaded and lead-free processes. Its high temperature stability and very good activity over a wide temperature range ensures a wide processing window with best soldering results. The surfaces are very clean after soldering, the SIR is above the standards. S-250/FR is suitable for foam fluxing and not recommended for selective and manual soldering (see also product matrix). Practice has shown, that in most cases no washing is needed for PCBA properly soldered with S-250/FR. The IC test with needle adapters is generally not affected.

Customer added value:

- Very good soldering properties (capillarity, wetting)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)



The picture may differ from the original product.

Technical Data:

Application area:	Wave soldering (spray- and foam fluxing)
Appearance/smell:	colorless to light yellow, clear
Solids content:	2,5 %
Density at 20 °C:	0,794 (+/- 0,003) g/ml
Acid number:	21-25 mg KOH/g
Activators:	synthetic resin with di-carboxylic acids
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units:



20 l

GSP-2533/RX/OVAP

Cat.-No. 3545

No clean, alcohol-based flux, synthetic resin, di-carboxylic acids, halogen-free (WEEE/RoHS conformant)
ISO-9454: 1231 // DIN EN 61190-1-1: LO (RELO)

GSP-2533/RX/OVAP established over the course of many years, is S-250/FRO's predecessor. Very good soldering results were achieved regardless of the respective type of system. The cleanliness is very good. GSP-2533/RX/OVAP is unsuitable for foam fluxing. It's not recommended for selective or manual soldering. Please note the shelf life of 6 month.

Practice has shown, that no washing is needed for PCBA properly soldered with this flux. The IC test with needle adapters generally completes without problems.

Customer added value:


- Very good soldering properties (capillarity, wetting)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)



The picture may differ from the original product.

Technical Data:

Application area:	Wave soldering (spray fluxing)
Appearance/smell:	colorless to reddish, clear
Solids content:	2,5 %
Density at 20 °C:	0,794 (+/- 0,003) g/ml
Acid number:	22-25 mg KOH/g
Activators:	synthetic resin with di-carboxylic acids
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	6 months

Packaging units:  20 l

GSP-2533/RX

Cat.-No. 3060

No clean, alcohol-based flux, synthetic resin, di-carboxylic acids, halogen-free (WEEE/RoHS conformant)
ISO-9454: 1231 // DIN EN 61190-1-1: LO (RELO)

GSP-2533/RX established over the course of many years, is S-250/FRO's predecessor. Very good soldering results were achieved regardless of the respective type of system. The cleanliness is very good. GSP-2533/RX is suitable as a wave-solder flux for foam and spray fluxing. It's not recommended for selective or manual soldering. Please note the shelf life of 6 month.

Practice has shown, that no washing is needed for PCBA properly soldered with this flux. The IC test with needle adapters generally completes without problems.

Customer added value:


- Very good soldering properties (capillarity, wetting)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (very clean, high SIR)



The picture may differ from the original product.

Technical Data:

Application area:	Wave soldering (spray- and foam fluxing)
Appearance/smell:	colorless to reddish, clear
Solids content:	2,5 %
Density at 20 °C:	0,794 (+/- 0,003) g/ml
Acid number:	22-25 mg KOH/g
Activators:	synthetic resin with di-carboxylic acids
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	6 months

Packaging units:  20 l

Solder Tincture WFF

Cat.-No. LF-06

Alcohol-based flux, high resin content, acitivated by halogenated amine (WEEE/RoHS conformant)
ISO-9454: 1123// DIN EN 61190-1-1: M1 (ROM1)

The Solder Tincture WFF is a halogenated flux which can be used for manual, repair, and dip soldering. The Solder Tincture WFF is in particular suitable for soldering on ceramic substrates or for braid tinning. The flux has a great temperature stability and a very good activation. The residue behavior is very good. The flux residues are water-soluble.

Customer added value:


- Wide range of applications
- Soldering on ceramic substrates
- Braid tinning
- Very good soldering properties (capillarity, wetting)
- Broad process window (very high thermal stability, good activity over a long interval)
- Very good residue behaviour (water-soluble)



The picture may differ from the original product.

Technical Data:

Application area:	Manual-, repair- and dip soldering, soldering on ceramic substrates, strand tinning
Appearance/smell:	yellowish to brownish, turbid
Solids content:	ca. 38 %
Density at 20 °C:	0,81–0,90 g/ml
Acid number:	Balsamic resin, di-carboxylic acids, halogenated amine
Activators:	short-chain alcohols
Solvents:	12 °C
Flash point:	24 months

Packaging units:  20 l

RS-4004

Cat.-No. 3091

No clean, alcohol-based flux, synthetic resin, di-carboxylic acids, minimal resin content (WEEE/RoHS conformant)
ISO-9454: 2231 // DIN EN 61190-1-1: LO (ORLO)

The RS-4004 has been developed for use with wave and selective soldering. In addition, it can be used for manual and dip soldering. All the conventional application methods can be used. The solids content amounts to 3.5%. The soldering flux contains a corrosion inhibitor.

Customer added value:


- Very wide range of applications (multiflux)
- Very good soldering properties (capillarity, wetting)
- Broad process window (very high thermal stability, very high activity over a long interval)
- Broad process window (very high thermal stability, very high activity over a long interval)
- Good residue behaviour (very clean, high SIR)
- Successful passing of internal test (SIR selective)



The picture may differ from the original product.

Technical Data:

Application area:	Wave- and selective soldering, manual- and repair soldering, dip soldering
Appearance/smell:	colorless to light yellow, clear
Solids content:	3,5 %
Density at 20 °C:	0,797 (+/- 0,003) g/ml
Acid number:	23–27 mg KOH/g
Activators:	di-carboxylic acids, minimal resin content
Solvents:	short-chain alcohols
Flash point:	12 °C
Durability:	12 months

Packaging units:  20 l



optionally available as dispenser bottle or flux pen



