

Samsol®* EC-121

semi-aqueous defluxer

Technical Data Sheet



Banner Chemicals Group UK
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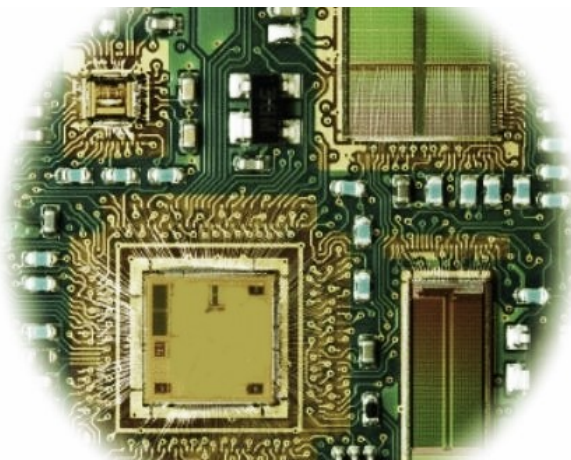
GENERAL DESCRIPTION

Samsol EC-121 semi-aqueous defluxer is a blend of surfactants, aliphatic esters, and propylene glycol ethers.

The semi-aqueous cleaning technique involves a solvent cleaning step, followed by hot water rinse and drying cycles.

Samsol EC-121 removes a wide variety of eutectic and lead free flux residues. It is excellent for cleaning after high temperature reflow and for removing any charred-on solder paste flux residues.

Samsol EC-121 is ideal for medical, military and avionic defluxing and other applications where there is a requirement for high reliability microelectronic circuits boards and components.



PROCESS DESCRIPTION

Samsol EC-121 semi-aqueous defluxer

Wash assemblies in 100% Samsol EC-15. Do not dilute with water. The wash bath should be heated to 60°C - 77°C and parts should be cleaned for 5 to 10 minutes.

Rinse off the residual EC-121 in heated DI water (50°C to 60°C). A second DI water rinse can also be used.

Dry assemblies. To dry the assembly and remove residual water, use forced air, oven, fan, centrifugal force or any other appropriate drying method.

Samsol EC-121 can also be used in a non-aqueous process by using ambient temperature Samsol Sitrex or IPA as rinse agents.

The EC-121 wash bath will eventually become loaded with solids from the flux residues. Customers are encouraged to establish a cleanliness standard and then monitor cleanliness levels using ionic contamination, surface insulation resistance, or other analytical methods to determine when the EC-121 bath should be changed.

FEATURES & BENEFITS

Samsol EC-121 semi-aqueous defluxer

- Excellent solvency for difficult to remove flux residues. Reduces process time and eliminates white residues.
- High flux loading so it can be used for a long time without changing the solvent bath.
- Very high flash point (121°C) so it can safely be used at elevated temperatures.
- Low vapor pressure which results in very low solvent emissions.
- Low odor
- Halogen-free and RoHS compliant.
- Can also be used to remove resin-based waxes used in optics manufacturing.

EQUIPMENT

Samsol EC-121 semi-aqueous defluxer should be used only in stainless steel, semi-aqueous equipment. Mechanical agitation such as spray, spray-under-immersion or ultrasonics, and heat will accelerate the cleaning process.

While immersion tanks are most commonly used with EC-121, it can also be used in centrifugal equipment or spray equipment designed to be used with solvents.

MATERIALS COMPATIBILITY

Samsol EC-121 semi-aqueous defluxer is compatible with most epoxies, flex laminates, and other cross-linked polymers. It also does not affect cured solder mask.

Best practice is to test the specific plastics and elastomers if compatibility is uncertain.



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TYPICAL PROPERTIES*

Samsol EC-121 semi-aqueous defluxer

Appearance.....	Clear yellow to reddish brown liquid
Odour.....	Very Mild Ether
Specific Gravity.....	0.81 @25°C
Vapour Pressure.....	<1 mmHg @20°C
Viscosity.....	9.0 cps @25°C
Flash Point.....	121 °C (250°F)
Halogen Free.....	Yes
RoHS Compliant.....	Yes
Ozone Depletion Potential (ODP).....	Zero
Global Warming Potential (GWP).....	Low

***Typical Properties data is not intended for specification purposes.**

STORAGE & PACKAGING

Samsol EC-121 semi-aqueous defluxer is sold in 20 liter pails and 208 liter drums.

The product should be stored indoors preferably above 10°C in a ventilated, fire-resistant building. If product separates due to freezing, it can be remixed with heat & stirring (See SDS for more storage details)

Shelf Life is 24 months when stored in the original unopened container.

Disposal : Banner Chemicals recommends contacting your current or local environmental service company for disposal of this product.

HEALTH & SAFETY

Samsol EC-121 cleaner is intended for use by trained personnel. Use standard chemicals handling procedures, including solvent resistant gloves (Nitrile, Viton or PVA) and safety glasses with side shields or chemical goggles. The use of latex gloves is not recommended for this product. Repeated contact with skin may cause irritation.

Use in well ventilated areas.

Please consult product MSDS for more information

ENVIRONMENTAL POLICY

It is the aim of the Banner Chemicals Group to provide their customers the finest quality products and services whilst operating to the highest Health & Safety standards and minimising the impact on the Environment. This is obtained through an Integrated Management System (IMS). This system meets and where possible exceeds, the requirements of International Standards, ISO 9001:2008 (Quality), ISO 14001:2004 (Environmental) and OHSAS 18001:2007 (Health & Safety) The company is committed to preventing pollution by ensuring that its products are developed, handled, transported, used and disposed of safely and in compliance with relevant Environmental & Health & Safety Legislation, the CBA's Responsible Care Programme, Product Stewardship and Industry Codes of Practice.

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