



SOLDERING

# ECOFREC™ 82

WATER SOLUBLE LIQUID FLUX  
SELECTIVE, WAVE & TINNING PROCESS  
EASY TO CLEAN

## BENEFITS

ECOFREC 82 is a water soluble, low residue flux with excellent soldering performance on any finish. This flux is recommended for lead free soldering and particularly suitable for component tinning in pure Sn or SnAgCu.

After tinning, residues are easily removed using deionized water or water bases cleaning chemistries. ECOFREC 82 is a 100% VOC free flux and therefore non-flammable.

PERFORMANCE	<ul style="list-style-type: none"> <li>▪ Excellent wetting</li> <li>▪ Great soldering performance on all finishes</li> <li>▪ Low residue levels</li> </ul>
COST	<ul style="list-style-type: none"> <li>▪ Easy to clean residues</li> <li>▪ Minimized rework needs due to highest process repeatability</li> </ul>
HSE	<ul style="list-style-type: none"> <li>▪ No CMR substances</li> <li>▪ Non-flammable</li> <li>▪ VOC free</li> </ul>

## FEATURES

SPECIFICATIONS	ECOFREC 82
Appearance	colorless liquid
Solid content (%)	6,4
Acid index (mg KOH/g)	31.5 – 34.5
Density at 20°C (g/cm <sup>3</sup> )	1.008 – 1.016
Halogen content	< 1500 ppm
Flash point	none
Flux classification	ORH1

## PROCESS RECOMMENDATION

ECOFREC 82 is used by dipping for tinning and can be used by spray for wave soldering. Preheating temperature must be set so as to achieve from 110°C to 130°C on the components before tinning or under the PCB prior to entering the solder wave. is suitable for spray, brush, foam or dipping processes.

ECOFREC 82 does not require any acid index nor density follow up.

Typical application amount for lead-free soldering process:

- 20-30g/m<sup>2</sup> of liquid flux recommended for typical 1,6mm board thickness
- 10g/m<sup>2</sup> can be enough for easy boards
- 40g/m<sup>2</sup> may be used for thicker boards

## CLEANING POST SOLDERING

This product should be cleaned after soldering. The flux residue can easily be removed with deionized water or INVENTEC's own formulated flux cleaners. The shorter the time between soldering and cleaning, the easier the residues will be removed. We recommend to clean not longer than 4 hours after soldering but it also depends on external factors like humidity and temperature.

*Inventec has over 60 years' experience in high-tech cleaning for aqueous and solvent based systems.  
Our solder materials are aligned with our cleaning solutions, which guarantees excellent cleaning.*

CLEANING PROCESS	DEFLUXING SOLUTIONS
Aqueous (Immersion or spray)	Promoclean DISPER 607, Promoclean DISPER 707, Promoclean DISPER 800

Other products available, depending on specific customer requirements. Also check our maintenance cleaning solutions.

## PACKAGING, STORAGE & SHELF LIFE

- To ensure the best product performance, the recommended storage temperature range is at ambient temperatures. Avoid storage temperature below 0°C. If the storage temperature had been below 0°C, it is necessary to store at the temperature of the production plant for 12 hours before use and to shake before use.
- Shelf-life is 12 months.

### AVAILABLE PACKAGING



20 L CANISTER

Also available in flux pen on request.

Please verify the packaging details, including volume and availability, with your sales representative, as they may vary depending on the production facility where the product is manufactured.

## HEALTH, SAFETY & ENVIRONMENT

No issues when used as recommended. Use in well ventilated areas and preferable under an exhaust system. Safety glasses and gloves should always be worn when handling the flux.

In accordance with the Annex II of Directive 2011/65/UE (RoHS), including its amendments, we certify that this product does not contains quantities above 0.1% of Hg, Pb, Cr VI, PBB, PBDE, DEHP, BBP, DBP, DIBP and above 0.01% of Cd. INVENTEC PERFORMANCE CHEMICALS also fulfils its direct obligations under the REACH and Conflict Mineral regulations.

Please refer always to the Safety Data Sheet (SDS or MSDS) prior to use. Our SDS can be downloaded at [www.quickfds.com](http://www.quickfds.com). We will request to provide your email address, so we can automatically send you a new version of the SDS when a future update would occur.

## TECHNICAL SUPPORT & FREE-OF-CHARGE TESTING

Inventec has a worldwide dedicated Technical Support team to help you along the various stages of our cooperation.

Depending on your request, we provide online or onsite support

- to select the right product based on your specific needs.
- to assist you in your product qualification process.
- to guide you with the initial set up of your process at all your worldwide manufacturing facilities.
- to provide fast response on technical issues which could occur at any time during mass production.

When prior cleaning is required, customers are also welcome in our CLEANING CENTERS to see the process in action and to get convinced by our solutions. We cover water and solvent based processes.

Inventec is unique in the world by developing not only cleaning materials but also soldering and coating solutions. These materials are very closely linked with each other from a process point of view. Talking to our Technical Team, who understands very well these 3 different product groups, will help you greatly to overcome technical challenges within your overall process.

Contact our technical support via [contact@inventec.dehon.com](mailto:contact@inventec.dehon.com) or your local sales representative.

## ABOUT INVENTEC

Inventec is a global provider of SOLDERING, CLEANING, COATING, COOLING materials for Electronic, Semiconductor and Industrial applications. For over 60 years we have shown leadership in innovation by putting HEALTH IMPACT, SUSTAINABILITY and RELIABILITY at the core of our product development.

With ISO 9001 & 14001 production sites in France, Switzerland, USA, Mexico, Malaysia and China we can guarantee a smooth and cost-effective supply chain.

We supply to many industries but the excellent performance of our products in applications which demand high reliability, leads us to focus especially on the AUTOMOTIVE, AEROSPACE, SEMICONDUCTOR, ENERGY and MEDICAL industry.

[www.inventec.dehon.com](http://www.inventec.dehon.com)



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This data is based on information that the manufacturer believes to be reliable and offered in good faith. In no event will INVENTEC PERFORMANCE CHEMICALS be responsible for special, incidental and consequential damages. The user is responsible to the Administrative Authorities (regulations for the protection of the Environment) for the conformity of his installation.

Inventec Performance Chemicals – 26 rue de Coulons. 94360 Bry-sur-Marne, France  
Limited company with capital of 600 000€ - 964 500 706 RCS Créteil