Decotron® 281

Decotron® 281 is a water-based cleaning fluid determined to remove misprints of a solder paste from the PCBs, stencils and squegges
Decotron® 281 eliminates potentional foaming of cleaning fluid in contact with Di-water or regular tap water.
Decotron® 281 is used in all the cleaning technologies without limitation, thanks to its nonflammability and high material compatibility, mainly in the spray-in-air cleaning machines.

Areas for Use of Decotron® 281:

1. unsoldered solder paste – PCB misprints, stencils, squeeges	highly recommended	InJet®
2. SMD adhesives, uncured	recommended	InJet®
3. lead-free flux residues	unrecommended	
4. no-clean flux residues	unrecommended	
5. resin fluxing agent residues	unrecommended	
6. hardened coatings	unrecommended	

Misprint

Stencil

Pumprint

Cleaning Process Using Decotron® 281:

› Decotron® 281 is intended for direct use, no need to dilute!
› stir well before use – Decotron® 281 consists of several components and it is vital that their ratio remains the same in the remaining liquid if it is not used entirely;
› filtration of the fluid: recommended – to extend the service life of Decotron® 281 and to protect certain parts of the cleaning device it is suitable to install filtrations of the cleaning bath. For consultation and the proposal please contact your DCT representative.
› *rinse using normal water – as the water composition and hardness vary substantially in the different places, it is recommended to rinse with normal water only for the cleaning of the soldering frames and machine parts. To rinse PCBs it is highly recommended to use Di-water which would guarantee that no salts and minerals contained in normal water stay on the rinsed surface as these may be dangerous to PCBs in the long run.
› Pb-free compatible – Decotron® 281 is developed also for the cleaning of Pb-free solder pastes.

1.1. unsoldered solder paste – PCBs´ misprints and stencils:

Process stages:	1. cleaning	2. rinse	3. drying
Cleaning fluid:	Decotron® 281	not needed or Di-water	air, hot circulating air
Time (in minutes):	3 to 5	NA or 2 to 3	8 to 12
Temperature (°C):	from 20, best at 45	room temperature	room temp. to 70

1.2. unsoldered solder paste – PCBs´ misprints and stencils + SMD adhesives:

Process stages:	1. cleaning	2. rinse	3. drying
Cleaning fluid:	Decotron® 281	not needed or Di-water	air, hot circulating air
Time (in minutes):	3 to 8	NA or 2 to 3	8 to 12
Temperature (°C):	from 20, best at 45	room temperature	room temp. to 70

Decotron® 281 Qualities:

› Ph neutral and highly compatible no negative influence on PCBs materials, stencils and components of the cleaning devices;
› suitable for closed cleaning processes;

› no flash point – even if heated extremely no self-ignition occurs, also Decotron® 281 cannot be set on fire by direct fire;
› cleaning results better than with solvent cleaning fluids, with the advantages of the water base;
› water base increases safety at work;
  › solvent cleaning fluids evaporate heavily and their vapors are harmful to health, in larger amounts very dangerous;
  › solvent cleaning fluids very often have a very low flash point which increases the risk of inflammation of the liquid;
› easy to use – no need of a special training;
› able to clean also at the room temperature – optimum cleaning results in terms of time and the cleaning quality are reached at temperatures from 35 to 50°C, it is possible to use the liquid for cleaning at the room temperature, as well, however, the cleaning would take longer time;
› tenzide-free technology – no solid residues on the surface being cleaned in comparison with tenzide cleaning fluids being used for these cleaning applications, as well;
› cost-effectiveness of use;
  › a long bath life of the cleaning fluid if filtered properly in the cleaning machine, suitable filtration provides by DCT;
  › the water base is not as costly as the solvent one;
  › possibility to clean the PCBs already assembled.

Environmental Information:

› environment-friendly – completely biodegradable;
› HMIS III, evaluation of the overall product hazardousness:
Health - 0 | 1 | 2 | 3 | 4
Flammability - 0 | 1 | 2 | 3 | 4
Reactivity - 0 | 1 | 2 | 3 | 4
HMIS evaluates the product from the three points of view above, the evaluating parameters are from the minimum risk (0) to the maximum one (4); HMIS rating criteria issue national paint and coating associantion NPCA (www.paint.org).
› ROHS – in accordance with the regulations, does not contain any hazardous substances;
› does not contain dangerous halogens.

Physical and Chemical Properties:

Product appearance	clear
Odour, aroma	none
Flash point (°C/°F)	none
pH value	neutral
Density (g/ccm) at 20°C (68°F)	0.98
Boiling point (°C/°F)	98 - 213 / 203 - 415
Freezing point (°C/°F)	below - 5 / 11
Surface tension (mN/m) at 25°C (77°F)	27.3
Vapour pressure (mbar) at 20°C (68°F)	28.4
Water solubility at 17°C (62,6°F)	soluble

Technical Support:

DCT offers, free of charge, the technical support, consultation and assistance directly on your manufacturing premises to find the most suitable solution.
To book the date of our visit please contact your DCT representative.

Trial Tests:

To book the date of the trial tests please contact your DCT representative.
When setting the cleaning process, DCT offers the testing of cleaning fluids, free of charge, in the full range directly at the customer's, in the amount as needed to fill and run the cleaning technology during the trial test. The duration and range of the trial tests are individual. If the criteria requested are met, the liquid stays with the customer and the partly used cleaning fluid is paid. If the requested cleaning results are not met, DCT takes the used cleaning fluid back without any request for compensation.

Compatibility:

highly compatible - no negative influence on PCBs materials, stencils and components of the cleaning devices.

Liquidation of used Decotron® 281:

For the liquidation of Decotron® 281 used please contact your company for waste management. While Decotron® 281 has been classified as no hazardous water-base product, the substances it contains after the cleaning cycles as the solder pastes, fluxing agents, SMD adhesives etc. are classified as hazardous and Decotron® 281 used must be liquidated properly by a responsible company.

Packing:

Decotron® 281 is standardly delivered in 25 litres PP cans. Samples are packed individually, should you need a sample, please contact your DCT representative.

Transport:

Decotron® 281 is classified as no hazardous matter, is not subject to any special request for the transport and ADR. No special packing for the land transport and air carrying requested.

Handling, Safety at Work:

DCT recommends to the operating staff to use safety spectacles when working with Decotron® 281.

Storage:

Being the non-flammable product, Decotron® 281 does not require any special placement, should be stored in the original packing at the temperature from –5 to 30°C

Shelf life:

The maximum usable life for this product is 24 months from the production date, if stored as recommended.