

JUFENG SOLDER INTERNATIONAL PVT LTD

Product Instruction JF-8731 water based cleaner

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JF8731 is a neutral environmentally friendly water-based cleaner developed for SMT printing stencil residue cleaning, which can effectively remove SMT Reflow solder paste residue on the printed screen, and uncured red glue residue, especially suitable for offline spray cleaning process. The product has high cleaning load capacity and excellent filterability, long service life, low odor and no foam. With the development of small, lightweight and precise electronic products, electronic cleaning has become more and more important in the manufacturing industry. Compared with traditional cleaning agents, JF8731 neutral water-based cleaning agent completely eliminates fire safety hazards and is more capable. Meeting the ever-increasing environmental protection material level requirements, it is in line with the future development of the cleaning industry.

Application range

JF8731 neutral water-based cleaner is especially suitable for off-line spray cleaning process, and can also be applied to ultrasonic cleaning process to remove Solder paste residue and red glue residue on the SMT stencil. It also has a certain solubility for various types of flux residues. Specific application effect Listed in the list below.

Applications: stencil and misprint cleaning		
Solder paste (before reflow soldering)	SMT printing stencil	★★★
	Printed circuit board	★★★
Uncured red plastic	SMT printing stencil	★★
Water soluble flux residue	PCBA	★
Rosin-based flux residue	PCBA	★
Low solids flux residue	PCBA	O

★★★: highly recommended, Best effect; ★★: recommend; ★: possible; O: Not recommended

Advantage

✘ The two-phase water-based cleaner has high cleaning load capacity and excellent filterability, resulting in long service life and low maintenance cost.

✘ Deionized water is used as a solvent, safe to use, and no additional explosion protection measures are required.

- ※ The formula is mild, the pH is neutral, and it has excellent material compatibility for sensitive metals, stencils, stretch mesh adhesives, plastics and other polymers.
- ※ It does not contain VOC components and can meet the relevant regulatory requirements for VOC emissions.
- ※ The smell is small and has little impact on the environment. without foam, it meet the requirements of high pressure spray without bubbles.
- ※ It does not contains solid matter, Need not to rinse after washing, no solid residue, no whitening.

Physical and chemical parameters

Classification	Water Based Cleaner JF8731
Exterior	Colorless stratified liquid (standstill), milky white in use
Density (25°C) g/cm ³	1.00±0.05
PH (10g/l H ₂ O)	Neutral
Boiling range (°C/°F)	95-212/ 203-413
Flash point (°C/°F)	Not Detected
Cleaning temperature (°C/°F)	20-40/ 68-104
Halogen wt/wt	0
Water Soluble	Soluble
Application concentration%	100%

Instructions

JF8731 is a new water-based cleaner developed for SMT stencil residue. It is mainly used in offline spray cleaning process. It can be used in ultrasonic cleaning process. The following describes the application of JF8731 in two cleaning processes.

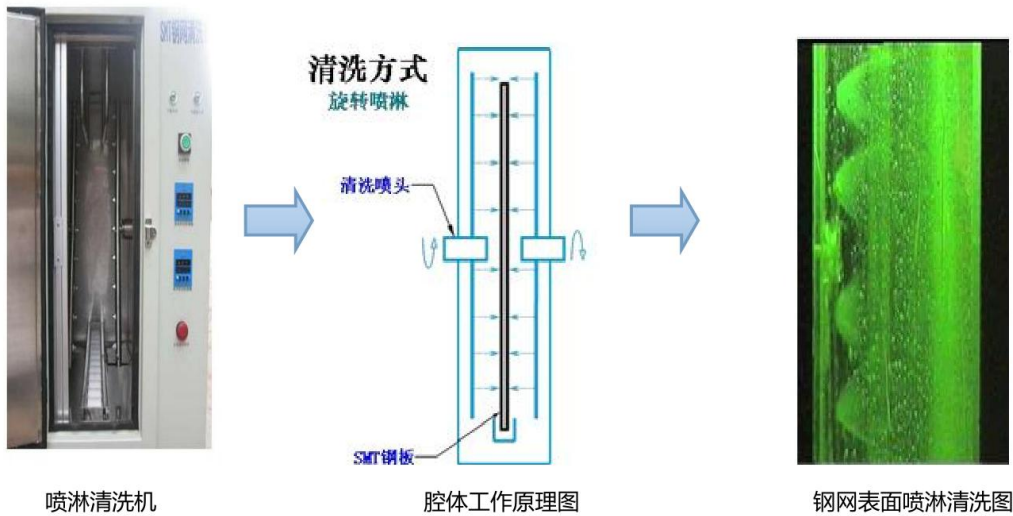
▲Spray Cleaning Process

The spray cleaning method can be divided into two types: rotary type and conveyor chain type. The spray cleaning mainly uses a medium and high pressure spray pump to pressurize the cleaning liquid, and converts the low flow cleaning liquid into a high speed beam to wash the cleaning surface. Thereby achieving the purpose of cleaning. (The process schematic is shown in the following figure.)

The specific process flow is: dosing - washing - drying - finishing. Specifically introduce the process application parameters and matters needing attention during the operation process.

1, process application parameters

Name	Process parameters
Steel mesh specification	Choose the right steel mesh according to the spray cleaning equipment
Cleaning agent dosage	JF8731 dosage can be set according to the cleaning equipment and the number of steel mesh to be cleaned
Cleaning time	For the commonly used 0.2mm steel mesh: The ideal time for cleaning the solder paste residue is 5-10min; Cleaning red glue residual time is generally 15-20min.
Cleaning temperature	20-40°C
Drying time	5-10min



喷淋清洗机

腔体工作原理图

钢网表面喷淋清洗图

2, the specific operation process and precautions

2.1 Dosing

The addition liquid has the cleaning liquid added at the beginning of the cleaning work, the replenishment during the cleaning process, and the replacement of the cleaning liquid. The matters needing attention during the adding process are:

- 1) JF8731 is a two-phase liquid. When adding liquid, it is necessary to shake the washing liquid and then add it;

- 2) Pay attention to controlling the use temperature. In an environment below 20 ° C, the cleaning solution will become clear and will have an adverse effect on the cleaning effect;

- 3) There is a certain amount of cleaning fluid loss during the cycle cleaning process. When the cleaning fluid in the liquid storage tank is lower than the minimum liquid level line, it needs to be replenished in time;

- 4) When the cleaning of the stencil is accumulated to a certain amount, and the cleaning liquid can not meet the requirements of the cleaning effect, pay attention to the replacement of the cleaning solution.

2.2 Cleaning

- 1) Cleaning methods are mainly divided into rotary type and conveyor chain type. Cleaning time can be selected according to the cleaning method, stencil thickness and cleaning Like making adjustments.

- 2) JF8731 can be cleaned at normal temperature, and the best cleaning effect can be achieved when the cleaning temperature is controlled at 20-40 ° C;

- 3) Select three representative steel plates for solder paste residue cleaning test (BGA Φ0.1~Φ0.3mm, BGA Φ0.4~Φ0.6mm, QFP 0.3mm)

2.3 Drying

The spray cleaning process generally uses a normal temperature airflow for drying, and the drying time can be adjusted according to the material of the stencil.

2.4 cleaning effect

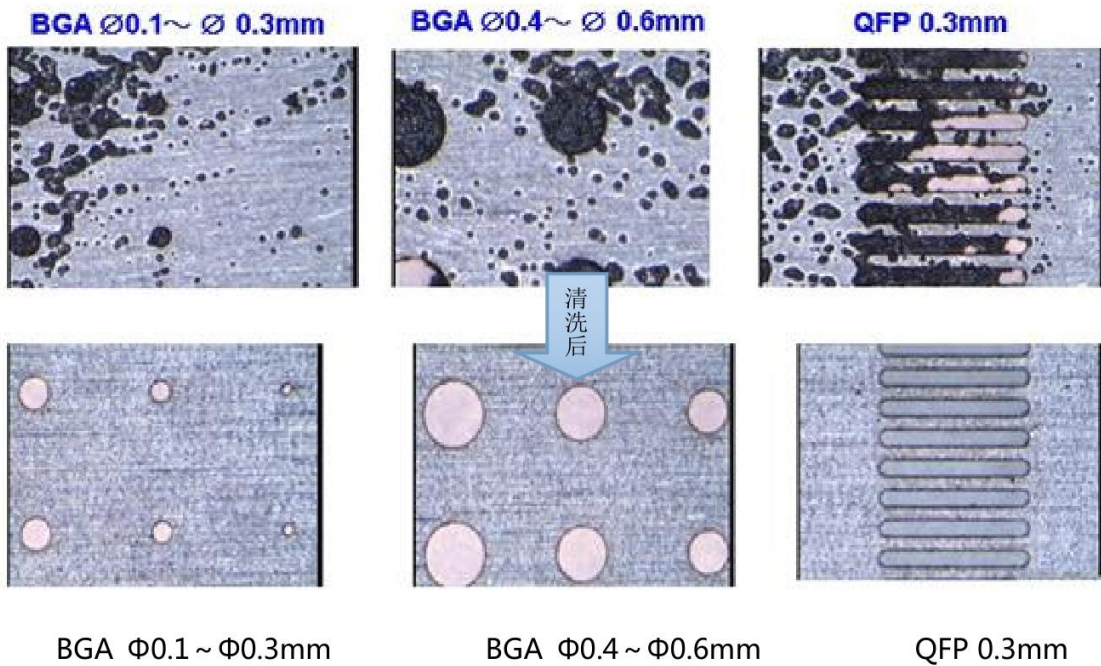
JF8731 can be cleaned SMT steel mesh small opening BGA $\Phi 0.1 \sim \Phi 0.3\text{mm}$ and groove QFP 0.3mm residue. The whole picture below has the whole the comparison of the cleaning effect of the solder paste stencil cleaning and partial enlargement is as follows:



印刷焊锡膏钢网



清洗后的钢网



▲ ultrasonic cleaning process

In the ultrasonic process, the washed SMT steel mesh is immersed in the cleaning tank and cleaned by ultrasonic side shock cleaning. The specific process operation process is: adding liquid → ultrasonic cleaning → rinsing → wind cutting drying → completion. The process application parameters and precautions are as follows:

1, the main application parameters

Project	Cleaning	Dry
Medium	JF8731	Wind shear
Temperature	Normal temperature cleaning (optimal cleaning temperature is 20-40°C)	Room temperature
Cleaning time	3-5min (Solder paste residue before soldering) 5-10min (Uncured red plastic residue)	>5min

3. Note on the precautions during the ultrasonic cleaning process:

1) When the steel mesh that customers need to clean, most of them are solder paste printing steel mesh, and a small part is red plastic printing steel mesh, the steel mesh can be cleaned together with JF8731, but the cleaning time needs to be set separately.

2) JF8731 is a two-phase liquid. During the ultrasonic cleaning process, the cleaning liquid is uniformly mixed to achieve the best cleaning effect.

3) In the ultrasonic cleaning process, there may also be an ultrasonic rinsing or a spray rinsing process, which is determined by the customer's own ultrasonic equipment. The rinsing process is typically rinsed with deionized water. The rinsing time is usually 1-3 minutes, and the rinsing temperature is normal temperature.

4) Different brands of different types of solder paste or red glue have different solubility, so the cleaning time can be adjusted according to the type of cleaning and actual needs.

Environmental, health and safety regulations

- ※ JF8731 is a neutral water-based cleaner.
- ※ The formula does not contain halogen and VOC components.
- ※ It is safe to use and does not burn.
- ※ It has little damage to the human body and no corrosion to the equipment.
- ※ Refer to the specific prevention and treatment methods of MSDS.

package

- ※ Packing: plastic bucket, 20KG/barrel.
- ※ Label: JF8731 is a non-toxic and non-hazardous chemical that does not require a specific hazard identification.
- ※ Storage: Store at room temperature and avoid direct sunlight and high temperature. The temperature is usually 0-40 ° C.
- ※ Warranty period: one year (sealed), the production date is detailed in the packaging.

Precautions

- ※ The operating room should have ventilation equipment to keep the air circulation in the workplace.
- ※ Wear gloves when handling to avoid prolonged contact with the skin. If you accidentally touch your eyes, rinse with plenty of water and seek medical advice as soon as possible.
- ※ Do not swallow, do not store in a range that children may reach.