

Eco-Oven™ SMT Oven Cleaner

Product# 1573

Product Description

Cleans reflow ovens, wave soldering systems, and associated heat exchanger systems by removing all types of flux residues (e.g. water-based, RMA, no-clean, lead-free). Used for periodic preventative maintenance to keep equipment running at top levels. It is fast acting and more effective than IPA for baked-on flux residues.

One gallon container (1573-G) recommended for wave solder finger cleaning. Just pour into the designated reservoir of your wave soldering machine. Trigger pump on quart (1573-QT) eliminates the need for propellants, which can have a global warming impact.

One quart (with a trigger sprayer) and one gallon containers are ideal for surface and tool cleaning. Packaging is selected to be easily recyclable. Labels made of recycled paper, and cartons made of 40% recycled material.

Eco-Oven™ Cleaner is fully compliant with CARB (California Air Resource Board) requirements.

Also compliant with European REACH (Registration, Evaluation, Authorization & Restriction of Chemicals) and WEEE (Waste Electrical and Electronic Equipment Directive) initiatives. It does not contain RoHS (Restriction of Hazardous Substances) restricted substances, SVHC (Substances of Very High Concern) list substances, nor halides.

Features / Benefits

- Quickly Clean Flux Residue From Oven & Wave Fingers
- Safe On Warm Ovens
- NonFlammable
- Biodegradable
- Low VOC
- Non-Ozone Depleting
- Halide-Free – Prevents Ionic Contamination

Applications

- For removal of baked-on flux residues from SMT oven and wave solder equipment.
- Recommended for usage in all brands of wave solder equipment.
- Used for periodic preventive maintenance of SMT ovens and wave solder equipment.

Avoid use on areas with aluminum, copper, brass, carbon steel, and galvanized steel.

| <u>Application</u> | <u>Suggestions</u> |
|--------------------|--|
| Oven cleaning | Reapply as necessary |
| Pallet cleaning | Let soak |
| Finger cleaning | Cycle wave with flux off to initially clean thick residues |
| Defluxing | Need to rinse. |
| | Read TDS for metal incompatibilities |



Typical Product Data and Physical Properties

| | |
|---|---|
| EXPOSURE LIMIT: | Manufacturer's recommendation 1000 ppm. |
| PHYSICAL STATE: | Liquid |
| ODOR: | Faint ethereal odor |
| APPEARANCE: | Clear, mobile liquid |
| pH: | 10-11 |
| PERCENT VOLATILE: | 90% at 104°C |
| VAPOR PRESSURE: | < 0.02 mmHg@20°C (VOC Composite Vapor Pressure) |
| BOILING POINT : | ~212°F (100°C) |
| FLASHPOINT AND METHOD (TAG Closed Cup): | None |
| SOLUBILITY IN WATER: | Fully miscible |
| DENSITY: | 1.00 at 25°C |
| VOC (by wt.): | 2.2%, 21.8 g/l |
| Shelf life: | 5 years unopened 2 years open |

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Directions

SMT Oven Cleaning

- Allow oven to cool down slightly and apply on warm surface (below 100°C).
- Spray and saturate the soiled area. Let soak for 5 minutes.
- Using a lint-free wipe (we recommend Techspray 2350-100 Wiper), wipe lightly at first to allow cleaning agent to break down residues.
- Continue to wipe in a circular motion until the flux residues are fully removed.
- Wipe completely with damp (w/water) cloth to remove remaining residue.
- Dispose of soiled wipe as appropriate depending on the type of residues removed.

Wave Solder Finger Cleaning

- Fill cleaner into finger cleaning reservoir.
- Keep adequate liquid level.

About TECHSPRAY RENEW™

TECHSPRAY RENEW™ is a brand that represents **High Performance Eco-Cleaning™**. Techspray® has applied our expertise in solvent cleaning to formulate some of the most effective eco-friendly cleaners on the market. Performance is our top priority, using the best “green” solutions as they become available. We all are at the cusp of the ongoing movement toward sustainable products, packaging, and processes. It is Techspray’s intention to stay at the cutting-edge while keeping our products powerful and cost effective.

Performance

Tested according to modified MIL-PRF-29608 4.59 standards:

Fluxed coupons cured for 15 minutes at 212°F (100°C). Flux is applied to cleaning coupons, cured, sprayed with cleaning fluid, allowed to sit 10-seconds, then a poly-cellulose wipe (saturated with same cleaning fluid) is dragged across one time using a dowel to maintain consistent pressure.

Percentage refers to the amount of soil (by weight) removed from stainless steel test coupon.

| | R-100 | No-Clean | Water-Soluble |
|--|-------|----------|---------------|
| Techspray Renew Eco-Oven Cleaner 1573 | 94% | 59% | 96% |
| 99.8% IPA | 96% | 70% | 82% |
| Techspray Water-Based SMT Oven Cleaner 1691 | 84% | 26% | 73% |

Compatibility

Metals

Test method: 24 hour submersion in sealed container.

| Material | Compatibility |
|---------------------|------------------------|
| Brass foil | Not recommended |
| Copper foil | Incompatibility noted* |
| Nickel 200 | Excellent |
| Aluminum 6061 | Not recommended |
| Aluminum 2024 | Not recommended |
| Anodized aluminum | Not recommended |
| Stainless Steel 316 | Excellent |
| Stainless Steel 304 | Excellent |
| Mild carbon steel | Not recommended |
| Galvanized Steel | Not recommended |

Note: Eco-Oven™ is a water-based formula, so will encourage oxidation with prolonged exposure to iron, steel, and other susceptible metals.

Prolonged exposure can result in discoloration and/or metal loss. Tests on copper coils of thermal transfer systems on reflow ovens show minimal compatibility issues even after repeating 10-20 minute soaking cycles weekly. Rinsing or blow drying with compressed air or duster should be done to minimize exposure.

Environmental Policy

Techspray® is committed to developing products to ensure a safer and cleaner environment. We will continue to meet and sustain the regulations of all federal, state and local government agencies.

Resources

Techspray® products are supported by global sales, technical and customer services resources.

For additional technical information on this product or other Techspray® products in the United States, call the technical sales department at 800-858-4043, email tsales@techspray.com or visit our web site at: www.techspray.com.

Important Notice to Purchaser/User: The information in this publication is based on tests that we believe are reliable. The results may vary due to differences in tests type and conditions. We recommend that each user evaluate the product to determine its suitability for the intended application. Conditions of use are outside our control and vary widely. Techspray’s only obligation and your only solution is replacement of product that is shown to be defective when you receive it. In no case will Techspray® be liable for any special, incidental, or consequential damages based on breach of warranty, negligence or any other theory.

Packaging and Availability

Eco-OVEN™ Cleaner available in the following sizes:

1573-QT 1 quart (0.95L) w/trigger sprayer

Available as special order, call for pricing:

1573-54G 54 gallon (205L)