

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2001

DateRun: 06/07/2001

Experimenters: Jason Marshall

ClientType: Electronics Manufacturer

ProjectNumber: Project #1

Substrates: Alloys, Aluminum

PartType: Coupon

Contaminants: Fluxes, Dirt

Cleaning Methods: Ultrasonics

Analytical Methods: Visual, microscopic

Purpose: To evaluate selected cleaner at a lower concentration.

Experimental Procedure: One cleaner, selected by the client based on the previous trials was diluted to 1% using DI water and placed in a VWR Scientific Products Aquasonic 150 HT ultrasonic tank and degassed for 5 minutes. One part was analyzed prior to cleaning to determine a baseline level. The part was then cleaned in this solution for 5 minutes at room temperature. Following cleaning, the part was rinsed for 2 minutes using a Crest 40 kHz ultrasonic tank model 4Ht 1014-6 with DI water at room temperature and then dried for 30 minutes at 160 F. After the part cools to room temperature, a final microscopy analysis was performed.

Results: After analysis, the part looked clean along the seam. There was no major alteration of the surface. Pictures were taken of the part before and after.

Summary:

|                      |                               |               |                    |                                     |                      |
|----------------------|-------------------------------|---------------|--------------------|-------------------------------------|----------------------|
| <b>Substrates:</b>   | Alloys, Aluminum              |               |                    |                                     |                      |
| <b>Contaminants:</b> | Fluxes, Dirt                  |               |                    |                                     |                      |
| <b>Company Name:</b> | <b>Product Name:</b>          | <b>Conc.:</b> | <b>Efficiency:</b> | <b>Effective:</b>                   | <b>Observations:</b> |
| Tower Products Inc   | Tower 270 Cleaner Concentrate | 1             |                    | <input checked="" type="checkbox"/> |                      |

Conclusion: Cleaning the supplied part with Tower 270 at 1%, 68 F for 5 minutes appears to have been effective.