

# **Technical Data Sheet**

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# Precision-V VC-1500 Flux Remover Product# 1655

### **Product Description**

Ideal replacement for AK225-based liquid cleaners, which were eliminated at the beginning of 2015 due to ozone depletion restrictions. Precision V VC-1500 provides azeotropic properties that allow it to safely and efficiently cycle in a vapor degreaser. It is not reactive nor corrosive to metals commonly found in the construction of vapor degreasers. Exposure to Precision-V solvents is less hazardous than other solvents commonly used in vapor degreasers: e.g. TCE, nPB, and Perc. Precision V VC-1500 Flux Remover has a lower boiling point than other vapor-degreaser solvents, reducing heat-stress on components being cleaned and reducing energy consumption from the boil sump and chiller coils. Precision-V Flux Remover cleans R, RA, RMA and SA type flux residues after high temperature reflow, wave and hand-soldering. It is ideal for lead and lead-free processes.

NOTE: As with all vapor degreaser equipment and processes, observe all safety precautions, guidelines and operating rules associated with these units. Failure to do so may put operations personnel at risk. Avoid excessive vapor losses, loss of refrigeration, excessive boil sump heat, etc. Make sure all equipment is operated in accordance with the manufacturer's guidelines and instructions. If in doubt, contact your manufacturer immediately.

### **Features / Benefits**

- Powerful cleaner
- Nonflammable
- Rapid evaporation
- Zero residue
- Safe on most plastics
- Low VOC
- Non-ozone depleting
- Low Boiling Point Lower Heat-Stress, Lower Energy

#### **Applications**

- Used in vapor-degreasers and as cold cleaner
- Removes flux residues electronic or electrical soldering
- Effective on both rosin and no-clean fluxes
- Effective for lead and lead-free soldering processes
- Removes light oils



#### **Typical Product Data and Physical Properties**

| Physical state:        | Liquid                  |
|------------------------|-------------------------|
| Odor:                  | Faint ethereal odor.    |
| Appearance:            | Clear, colorless liquid |
| Percent volatile:      | 100                     |
| Vapor pressure:        | 129.34 mHg@20ºC         |
| Vapor density:         | >1 [Air=1]              |
| Boiling point:         | 90ºF (32.2ºC)           |
| Flashpoint and method: | None to boiling point   |
| Solubility in water:   | Negligible              |
| Density:               | 1.3077 at 25°C          |
| VOC:                   | 43.00% by weight (EPA)  |
| Shelf life:            | 5 years                 |



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#### **Material Compatibility - Plastic**

ABS: Not compatible Nylon: Excellent Lexan: Not compatible HDPE: Excellent Excellent LDPE: C.E. Phenolic: Excellent Not compatible PMMA: POM: Excellent PP: Excellent PS: Not compatible PTFE: Excellent PVC: Not compatible

#### **Material Compatibility - Elastomers**

5 minute immersion at room temperature

Silicone Slight Swelling<sup>2</sup> Santoprene Excellent<sup>1</sup> Hypalon Excellent<sup>1</sup> Slight Swelling<sup>2</sup> Epichlorohydrin Slight Swelling<sup>2</sup> Viton Excellent<sup>1</sup> **EPDM** Excellent<sup>1</sup> Neoprene Excellent<sup>1</sup> Butyl rubber Slight Swelling<sup>3</sup> Polyurethane Slight Swelling<sup>2</sup> Nat. gum rubber Slight Swelling<sup>2</sup> Buna-N Excellent<sup>1</sup> Oil Resist Vinyl Buna-S Slight Swelling<sup>2</sup> Excellent<sup>1</sup> Sorbothane Kelrez 6375 Excellent<sup>1</sup> Kelrez 7075 Excellent<sup>1</sup>

- 1 = Swelling under 5%
- 2 = Swelling under 10%, recovery to under 5%
- 3 = Swelling under 12%, recovery to under 5%

#### **Metals Compatibility – Metals**

Brass foil: Excellent short-term, slight reaction long-term

Copper foil: Excellent short-term, slight reaction long-term

Nickel 200 Excellent short-term, slight reaction long-term

Aluminum 6061 Excellent

Aluminum 2024 Excellent short-term, slight reaction long-term

Stainless Steel 316 Excellent Stainless Steel 304 Excellent

Mild carbon steel Slight reaction short

#### **Reclamation Process**

The reclamation (ie. boil down) process utilizes the vapor-degreaser as a still to distill solvent from the dirty boil sump and allows you to reclaim and reuse this solvent.

When it is determined that the Boil Sump needs to be cleaned out, you should do the following things to boil down the solvent:

- 1. If you have a 2 sump vapor-degreaser, drain the rinse sump into a clean container for reuse. If you have a one-sump vapor-degreaser, drain the spray reservoir using the spray wand. This material should be collected in a clean container, so it can be reused.
- 2. Allow the solvent to continue to boil, and the vapors to condense, until such time as one of two things happens:
- a. the High Temperature Control (HTC) trips and turns off the heat to the heating elements or b. the Liquid Level Control trips because the level in the Boil Sump is too low.
- 3. Drain the remaining solvent/soil mixture into a container that is labeled as Hazardous Waste. This material can be used in future "boil downs" to reclaim more of the solvent in the mixture.
- 4. Use the retained solvent (from step 1) to refill the vapor-degreaser and add whatever volume of solvent is necessary to completely fill the machine.

This process can be repeated as often as necessary, depending on the amount of usage of the vapor-degreaser and the amount of soil that is introduced into the vapor-degreaser.

When you "boil down", always put the solvent/soil mixture into the vapor-degreaser to reclaim additional amount of the solvent from this mixture.

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### **Packaging and Availability**

1655-G

1 Gallon

### **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.

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