

ARMAKLEEN® E-2001P

By Nature, A Superior Aqueous Cleaner

DESCRIPTION

ARMAKLEEN E-2001P is an environmentally sensible, inorganic based, aqueous cleaner designed specifically for cleaning electronic assemblies in both batch and in-line equipment. The formulation provides a high level of solder joint brightness with very low foaming, even after extended washing cycles. **ARMAKLEEN E-2001P** is completely safe in cleaning equipment constructed with CPVC plastics.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES AND BENEFITS

- No attack on solder. Bright solder joints.
- No VOC. Passes EPA emissions Test 24.
- Non-hazardous. No SARA 313 and WHMIS reporting requirements.
- No Amines/Glycol Ethers. Enhanced worker safety.
- Non-flammable. Safe in all cleaning equipment.
- No odor for operator comfort.
- Very low BOD/COD. Easy disposal.
- Very low foam. Easy to use in most equipment.
- Low viscosity. Easy to handle.
- No attack on CPVC. Suitable for use in most equipment.

PRODUCT INFORMATION

Packaging: ARMAKLEEN E-2001P aqueous cleaner is available in 1, 5, and 55 gallon containers.

APPLICATION GUIDELINES

Process - ARMAKLEEN E-2001P is supplied as a liquid concentrate and diluted in use with deionized water, typically 10 to 15% ARMAKLEEN E-2001P by volume. For optimum cleaning, actual concentrations will vary with the type of flux or solder paste:

| | |
|------------------------------|---|
| R, RMA, RA | 10 to 15% |
| OA, No-Clean | 6 to 10% |
| Operating Temperature | The temperature range is 150 to 165 °F (65 to 75 °C). |

Unlike amine based saponifiers, ARMAKLEEN E-2001P is not degraded at operating temperature. Bath life is, therefore, extended and cleaning efficiency is maintained even after idle periods.

Control

ARMAKLEEN E-2001P concentration in the wash bath is controlled by a simple titration. Consult your local sales or technical personnel if support is needed.

Procedure:

1. Measure accurately 10mL of the wash bath sample.
2. Add about 100mL of deionized water and mix.
3. Add 2 to 3 drops of Phenolphthalein solution, swirl until pink color.
4. Titrate with 8N hydrochloric acid until the pink color becomes permanently colorless.
5. Read percent concentration from the graph.

TECHNICAL DATA

| Item | Typical Values | Item | Typical Values |
|-----------------|------------------------|--------------------------|----------------|
| Appearance | Clear to slightly hazy | Specific Gravity (22 °C) | 1.15 |
| Odor | None | Flash Point | None |
| pH 10% solution | 11.3 | COD @ 10% | 17,500 mg/L |
| Surface Tension | 28 dynes/cm | BOD @ 10% | 115 mg/L |
| Shelf Life | 720 Days | | |

SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available at MacdermidAlpha.com/assembly-solutions/knowledge-base.**

STORAGE

The product should be stored at room temperature above freezing and less than 120 °F.

CONTACT INFORMATION

**To confirm this document is the most recent version, please contact
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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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