

## ALPHA<sup>®</sup> SMX-022

### Rosin-Based Low Activity Flux

#### DESCRIPTION

**ALPHA SMX-022** is a halide free rosin-based flux designed for applications requiring high reliability. The low activity flux system is engineered for electronic component mounting applications needing high reliability. **ALPHA SMX-022** is optimally formulated for Pb-free SMT assemblies to reduce nonwetting and solder bridging.

Flux residues are non-corrosive and non-hygroscopic promoting good insulation to the assembly. Because the resulting flux residue is at a minimum, tacky flux is not left on the board and pin test characteristics are good.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

#### APPLICATION GUIDELINES

ALPHA SMX-022 is best applied by spray fluxing or foam fluxing.

The following guidelines are recommended specifically for foam fluxing.

- 1) Adjust the height of the foam to the proper level.
- 2) Keep the proper level by adding fresh ALPHA SMX-022.
- 3) The specific gravity should be maintained at 0.820 +/- 0.010 by adding ALPHA 425.
- 4) Clean the fluxer at regular intervals to remove oil, water or flux residues.
- 5) Clean the fluxer using ALPHA 425 at the time of replacing ALPHA SMX-022.

**TECHNICAL DATA**

Item	Typical Values	Item	Typical Values
Appearance	Clear, Pale Yellow	Flash Point (T.C.C.)	17 °C
Solids Content, wt/wt	7.5%	Recommended Thinner	<b>ALPHA 425</b>
Specific Gravity @ 25 °C (77 °F)	0.820 ± 0.005	Shelf Life (from Date of Mfg.)	540 days
Acid Number (mg KOH/g)	39.3 ± 5.0	IPC J-STD-004 Designation	ROL0
Chloride Ion Content (%)	None	Packaging Size (resin coated & UL can)	14kg

**CORROSION & ELECTRICAL TESTING**
**Corrosion Testing**

Test	Requirement for ROL0	Results
Silver Chromate Paper IPC TM-650 Test Method 2.3.33	No detection of halide	PASS
Copper Mirror Tests IPC TM-650 Test Method 2.6.15	No evidence of mirror breakthrough	PASS

**Electromigration Resistance** (All values shown are in ohms)

Test	Conditions	Requirements	Results
IPC TM- 650 Test Method 2.6.14.1	85 °C/85% RH, 500 hrs	SIR (Initial)/SIR (Final) <10	PASS
96 hrs. (Initial), 400hrs., 500 hrs. (Final)			

**RECYCLING SERVICES**

We provide safe and efficient recycling services to help companies meet their environmental and legislative requirements and at the same time, maximize the value of their waste streams.

Our service collects solder dross, solder scrap, and various forms of solder paste waste. Please contact your local sales representative for recycling capabilities in your area or [link here](#).



**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](http://MacdermidAlpha.com/assembly-solutions/knowledge-base).**

**CONTACT INFORMATION**

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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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