

## Low Residue Soldering Flux

### Product Applications

**HMT7-LF** is a low residue flux, formulated to contain low solids, free of any halides, rosin and resin. **HMT7-LF** was designed for soldering high quality electronics assemblies such as: through-hole, mixed technology, and surface mount assemblies while eliminating the need for a post cleaning process. **HMT7-LF** can be used as supplied in foam or spray applications.

### Product Benefits

- Excellent Surface Wetting
- Eliminates need for cleaning boards in most applications.
- Compatible with Sn/Pb and Lead-Free Solders.
- May be conformal coated without post cleaning.

### Specifications and Test Results

Test J-STD-004 or other requirement (as stated)	Test Requirement	Result
Copper Mirror	IPC-TM-650: 2.3.32	L: No Breakthrough
Corrosion	IPC-TM-650: 2.6.15	L: No Corrosion
Quantitative Halides	IPC-TM-650: 2.3.28.1	L: <0.05%
Electrochemical Migration	IPC-TM-650: 2.6.3.7	L: <1 decade drop (not cleaned)
Surface Insulation Resistance 40°C, 90% RH @ 168 Hours	IPC-TM-650: 2.6.3.7	L: ≥ 100 MΩ (No Clean)
Visual	IPC-TM-650: 3.4.2.5	Clear and Free from precipitation
Conflict Minerals Compliance	Electronic Industry Citizenship Coalition (EICC)	Compliant
REACH Compliance	Articles 33 and 67 of Regulation (EC) No 1907/2006	Contains no substance >0.1% w/w that is listed as SVHC or restricted for use in solder materials.
Specific Gravity	N/A	0.820 ± 0.01
Density	N/A	6.88 lb/gal
Acid Value	N/A	43.5 ± 6.5
Solids Content	N/A	4.7% ± 0.1
Flash Point TCC	N/A	11.7°C / 59°F

### Product Use Guidelines

**HMT7-LF** may be applied by foam, spray, or wave application. The optimum topside PCB preheat temperature is 93-115°C/200-240°F. Too low a preheat setting is indicated by post-solder residues on PCBs that look like water stains.

For optimum results, use the following guidelines:

- Make certain that the PCB surfaces are free from impurities.
- Maintain consistent foam head by narrowing the flux chimney or using dual flux stones.
- Add fresh flux to maintain proper flux level in flux tank.
- Replace the flux daily unless a sealed, self-contained system is used, such as in spray fluxing system.
- For foam fluxing, flux properties can be maintained by monitoring the specific gravity. Controlling the acid value is the most accurate measure and recommended by using a titration kit.

### Storage and Shelf Life

Product should be stored in original sealed containers below 50°C. Shelf life under stated conditions is (2) years.

## Packaging

Container Sizes	1-gallon container, 5-gallon pail, 55-gallon drum, Flux Pens
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## Health and Safety

**HMT7-LF** is a flammable product and should be handled with care and the normal precautions taken when working with chemical products. Recommended handling procedures are provided in the SDS.

Please refer to the Safety Data Sheet (SDS) before use. Safety data sheets can be found at [www.hmtsolder.com](http://www.hmtsolder.com)

This data is based on information that the manufacturer believes to be reliable and offered in good faith. In no event will HMT be responsible for special, incidental and consequential damages. The user is responsible to the Administrative Authorities (regulations for the protection of the Environment) for the conformity of his installation.