**PRODUCT DATA SHEET**

**NR-10-D**

No-Clean Wave Solder Flux

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**Introduction**

Wave Solder Flux NR-10-D is a low-solids, rosin/resin-free flux. It is specially formulated to be used for wave soldering where the cleaning process has been eliminated. Any post-soldering residues are considered non-corrosive. Soldered assemblies are ATE pin-testable without cleaning.

The preferred method of application of low-solids fluxes is by ultrasonic spray. This flux can be used very effectively in a single or dual wave soldering system. Assemblies with surface-mounted components, leaded components, or a combination of both can all be soldered successfully with NR-10-D.

**Features**

- Excellent wetting
- No unpleasant odor
- High SIR assemblies
- Meets the requirements of Bellcore Standard TR-NWT-000078, Issue 3

**Physical Properties**

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Clear</td>
</tr>
<tr>
<td>Solids Content</td>
<td>1.5</td>
</tr>
<tr>
<td>Specific Gravity @ 60°F</td>
<td>0.796</td>
</tr>
<tr>
<td>Specific Gravity @ 77°F</td>
<td>0.791</td>
</tr>
<tr>
<td>Flash Point</td>
<td>54°F</td>
</tr>
<tr>
<td>Acid Value</td>
<td>12</td>
</tr>
</tbody>
</table>

All information is for reference only. Not to be used as incoming product specifications.

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**General Process Recommendations**

NR-10-D should not require thinning when used in a closed spray fluxer system. If required, the solids content of NR-10-D may be maintained by the addition of 16-3000 Flux Thinner.

<table>
<thead>
<tr>
<th>Process Parameter</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Preheat Temperature</td>
<td>80–105°C</td>
</tr>
<tr>
<td>Preheat Time</td>
<td>Approximately 40–60 seconds</td>
</tr>
<tr>
<td>Deposition Range</td>
<td>300–600 micrograms/square inch</td>
</tr>
</tbody>
</table>

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**Packaging**

- 5 gallon containers
- 55 gallon drums

**Safety and Precautions**

All fluxes with low flash points should be handled with utmost care and precaution. They should be stored in a dry, well-ventilated area away from flames, sparks, and direct heat.

**Technical Support**

Indium Corporation’s internationally experienced engineers provide in-depth technical assistance to our customers. Thoroughly knowledgeable in all facets of Materials Science as it applies to the electronics and semiconductor sectors, Technical Support Engineers provide expert advice in solder properties, alloy compatibility and selection of solder preforms, wire, ribbon, and paste. Indium Corporation’s Technical Support Engineers provide rapid response to all technical inquiries.

**Safety Data Sheets**

Please refer to the SDS document within the product shipment, or contact our local team to receive a copy.

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All of Indium Corporation’s solder paste and preform manufacturing facilities are IATF 16949:2016 certified. Indium Corporation is an ISO 9001:2015 registered company.

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