

Product Data Sheet

# Wave Solder Flux 1075 VOC-Free

## Features

- VOC-Free formulation
- Excellent surface wetting
- Eliminates cleaning

## Introduction

**1075 VOC-FREE** is a resin/rosin-free flux specifically developed for wave soldering, surface mount, mixed-technology and through-hole electronic assemblies.

**1075 VOC-FREE** is a water-based, non-flammable formulation eliminating special storage requirements, and reducing VOC emissions dramatically.

## Process Recommendations

**1075 VOC-Free** should be applied by ultrasonic spray for best results. The optimum pre-heat temperature for most circuit board assemblies is 93-115°C (200-240°F). Flux deposition rate of 500-1,000 micrograms/square inch (77.5-155 micrograms/sq. cm) of flux solids should be applied. The Conveyor speed and preheat should be adjusted to ensure complete water removal before contact with the solder wave.

Because the **1075 VOC-Free** is water based, it does not require frequent acid value monitoring. If thinning is required, the addition of deionized water is all that is necessary.

The **1075 VOC-Free** may freeze if exposed to temperatures below 32°F. If the flux becomes frozen, bring to room temperature until thawed and agitate. The material is not affected by freezing.

## Physical Properties

Test	Result
Color:	Clear
Specific Gravity:	
@25°C (77°F)	1.008
@15.5°C (60°F)	1.008
Acid Value	20.0
Solids Content	1.91
Flash Point (°F TCC)	None
J-STD-004 Flux Type	ORLO

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

## Packaging

- 5 gallon containers
- 55 gallon drums

## Safety

**1075 VOC-Free** is non-flammable material. Standard precautions should be observed when handling this material.

## Technical Support

Indium Corporation's internationally experienced engineers provide in-depth technical assistance to our customers. Thoroughly knowledgeable in all facets of Material 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.

## Material Safety Data Sheet

The MSDS for this product can be found online at <http://www.indium.com/techlibrary/msds.php>

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## Bellcore Surface Insulation Resistance Test

Test Pattern	Boards	Initial Reading*	Final Reading*
Standard Bellcore	Control	2.96 X 10 <sup>11</sup>	5.79 X 10 <sup>12</sup>
	Pattern up	1.88 X 10 <sup>11</sup>	1.74 X 10 <sup>12</sup>
	Pattern down	2.33 X 10 <sup>12</sup>	7.90 X 10 <sup>12</sup>

All readings expressed in ohms

## IPC Surface Insulation Resistance Test

Test Pattern	Boards	24 Hours*	96 Hours*	168 Hours*
IPC B25A	Control	1.74 X 10 <sup>10</sup>	5.60 X 10 <sup>9</sup>	3.76 X 10 <sup>9</sup>
	Pattern up	3.34 X 10 <sup>9</sup>	2.75 X 10 <sup>9</sup>	3.18 X 10 <sup>9</sup>
	Pattern down	1.02 X 10 <sup>11</sup>	8.22 X 10 <sup>9</sup>	6.28 X 10 <sup>9</sup>

All readings expressed in ohms

## Bellcore Electromigration Resistance Test

Test Pattern	Boards	Initial Reading*	Final Reading*
IPC-B-25A	Control	1.32 X 10 <sup>12</sup>	1.81 X 10 <sup>12</sup>
	Pattern up	8.83 X 10 <sup>11</sup>	1.74 X 10 <sup>12</sup>
	Pattern down	1.29 X 10 <sup>12</sup>	1.74 X 10 <sup>12</sup>

All readings expressed in ohms

This product data sheet is provided for general information only. It is not intended, described which are sold subject exclusively to written warranties and limitations and shall not be construed, to warrant or guarantee the performance of the products thereon included in product packaging and invoices.

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