

# PRODUCT DATA SHEET

# WS-575-SP

## Flip-Chip Flux

### Introduction

**Flip-Chip Flux WS-575-SP** is a liquid flux specifically designed to meet process needs for direct chip attach of fine-pitch flip-chips (<0.5mm). **WS-575-SP** eliminates compatibility issues with underfills by having a completely water-cleanable residue.

### Features

- Water-soluble
- Halogen-free (not intentionally added)
- Suitable for spray applications
- Suitable for SnPb and Pb-free applications
- Non-corrosive to underbump metallization

### Properties

	Value	
Flux Type Classification	M0	J-STD-004 (IPC-TM-650: 2.3.32 and 2.3.33)
Typical Viscosity	45cSt	Cannon-Fenske
SIR (Ohms, post cleaning)	Pass (>10 <sup>8</sup> after 7 days @ 85°C and 85% RH)	J-STD-004 (IPC-TM-650: 2.6.3.3 IPC-B-24)
Typical Acid Value	55mg KOH/g	Titration
Color	Amber to brown	Visual
Shelf Life	1 year (0 to 30°C)	Viscosity change/microscope examination

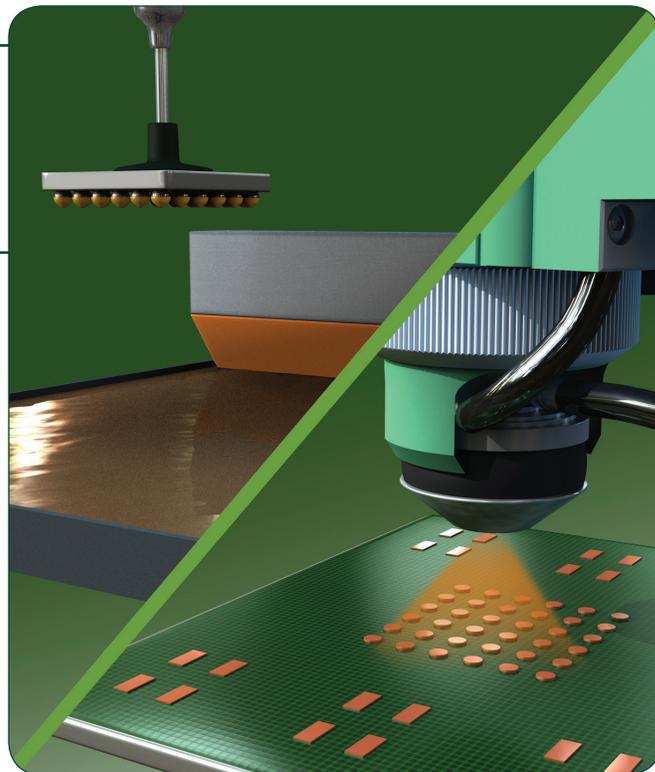
*All information is for reference only.*

*Not to be used as incoming product specifications.*

### Application

Recommended flux amount: 500–1,500 micrograms/mm<sup>2</sup>, depending on flip-chip.

For spray applications, the flux storage tank should hold enough flux for one 8-hour shift. Additional flux remaining in tank may expire (pot life <10 hours at room temperature) if left for a prolonged amount of time. Spray equipment should also be cleaned frequently to ensure uniform spray deposition and flux purity.



### Cleaning

The material can be cleaned with DI water, or water with an added cleaner. Ideal conditions for spray-cleaning: 25°C (room temperature) or higher for >1 minute at >60psi.

### Packaging

**WS-575-SP** is available in 100g to 1 gallon (3.8 liter) containers. Other packaging can be provided to meet specific requirements.

### Storage

Storage temperatures should not exceed 25°C for more than 4 days, and should never exceed 30°C. Colder storage (as low as -25°C) can be used to maximize the shelf life. After removing from cold storage, **WS-575-SP** should be allowed to stand for at least 4 hours at room temperature before using.

**From One Engineer To Another®**



## PRODUCT DATA SHEET

# WS-575-SP Flip-Chip Flux

### Technical Support

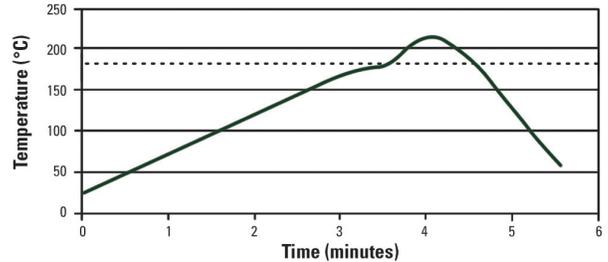
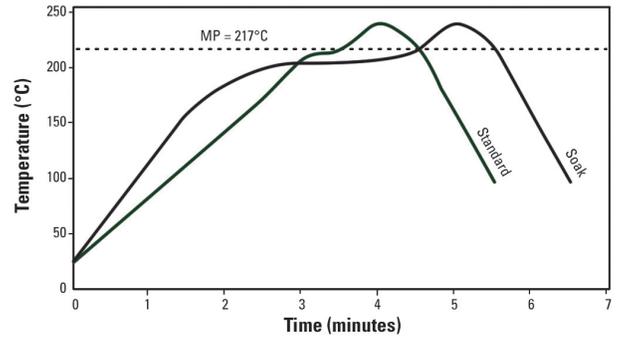
Indium Corporation sets the industry standard in providing rapid response, onsite technical support for our customers worldwide. Indium Corporation's team of Technical Support Engineers can provide expertise in all aspects of Materials Science and Semiconductor Packaging process applications.

### Safety Data Sheets

The SDS for this product can be found online at <http://www.indium.com/sds>

### Reflow

#### Recommended Profile:



Peak reflow temperature should be <math><340^{\circ}\text{C}</math> in an air or nitrogen atmosphere (<math><100\text{ppm O}\_2</math>), with a linear ramp up to <math>30^{\circ}\text{C}</math> above liquidus temperature. These profiles are recommended to the user as starting points, and should be optimized by the user to meet their individual process needs.

This product data sheet is provided for general information only. It is not intended, and shall not be construed, to warrant or guarantee the performance of the products described which are sold subject exclusively to written warranties and limitations thereon included in product packaging and invoices. All Indium Corporation's products and solutions are designed to be commercially available unless specifically stated otherwise.

Contact our engineers today: [askus@indium.com](mailto:askus@indium.com)

Learn more: [www.indium.com](http://www.indium.com)



ASIA +65 6268 8678 • CHINA +86 (0) 512 628 34900 • EUROPE +44 (0) 1908 580400 • USA +1 315 853 4900



©2018 Indium Corporation