

## PRODUCT DATA SHEET

# CIG Alloy Powder

(Copper-Indium-Gallium)

### Introduction

Alloy powders made from copper, indium, and gallium alloys can be used to produce high-efficiency CIGS (copper-indium-gallium-diselenide) solar cells. Consistent, tightly-controlled chemistry throughout the particles enable better control on the resulting solar cell chemistry and morphology.

**CIG Alloy Powder** from Indium Corporation is manufactured to demanding quality standards. Our flexible manufacturing process allows us to fulfill orders from evaluation/research quantities to full-scale production volumes.



### Benefits

- Increased efficiency—low impurity levels enable more efficient solar cells
- Customizable—available in various particle size distributions (PSD) and alloy compositions

### Chemistry, Purity, and Quality

- Alloys available with Cu/III ratios 0.1–1.0+ and Ga/III ratios 0.2–0.3
- Tightly-controlled Fe, Ni, Zn, Cd, and Hg enable higher solar conversion efficiency
- Capability to analyze and control impurities to the part per billion levels
- Comprehensive quality assurance (QA) testing on raw materials at every stage of manufacturing, and on the final product

### Storage and Packaging

**CIG Alloy Powder** is securely packed to avoid contamination and damage during shipment. Custom packaging is available on request.

### Safety Data Sheets

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

### Technical and Customer Support

Indium Corporation sets the industry standard in providing online and onsite technical support to our customers worldwide. Our team of research scientists, application engineers, and technical support engineers work closely with customers to develop custom solutions to their technical problems and increase their productivity.

Indium Corporation's Six Sigma Green Belt- and Black Belt-certified staff have been trained in advance process management methods to help you to:

- Increase yields
- Improve customer satisfaction
- Increase revenues
- Reduce defects
- Deliver high value and return on investment
- Increase profits

### Corporate Strength

Indium Corporation is a premier materials manufacturer and supplier to the global electronics, semiconductor, solar, thin-film, and thermal management markets. Products include solders and fluxes; brazes; thermal interface materials; sputtering targets; indium, gallium, germanium, and tin metals and inorganic compounds; and NanoFoil®. Founded in 1934, the company has global technical support and factories located in China, Malaysia, Singapore, South Korea, the United Kingdom, and the USA.

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.

## From One Engineer To Another®

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