

## GOLDOUT™

Designed to complement its high-quality gold etchant (AU1), Union Etchant International's (UEI) revolutionary, new product, GOLDOUT™, recovers 99.4% of the gold from spent UEI gold etchant, with minimal health and safety risks to the user.

### **UEI's GOLDOUT™ offers many advantageous features and benefits.**

**Makes gold recovery safer and easier:** In contrast to other gold recovery products now on the market, GOLDOUT™ does not contain strong acids or volatile chemicals that produce toxic fumes or liquids. It is a stable, relatively safe product that does not require complex health and safety procedures for use.

Within 15 to 20 minutes after the GOLDOUT™ powder is mixed with the spent gold etchant, the gold begins settling out of the liquid.

**Minimizes wastes and lowers environmental costs:** Because GOLDOUT™ is less hazardous than other gold recovery chemicals (that contain lower pH levels), the used etchant is less hazardous. This enables manufacturers to save money on waste disposal, regulatory compliance (recordkeeping, reporting, and tracking), and potential future liabilities.

**Provides added income through gold recovery:** The ability to more easily recover gold on site provides semiconductor manufacturers with more control of the precious metals they use, and, considering the market price of gold, provides added cost savings.

### **About Union Etchants International**

UEI manufactures stock and custom-formulated iodine-based etching solutions at a competitive cost. All UEI chemicals are processed with the highest quality materials with the consistency and repeatability necessary for the most critical processes. In addition, UEI uses a high-purity water system to formulate its liquid products.

UEI's products are batch controlled and are shipped in various size packages to suit customer requirements. All packages are UN approved and certified.

UEI stock products are ready-to-use and include:

- GOLDOUT™ (powder form)
- AU1 Gold Conductor Etchant (liquid or powder form)
- CR1A Chrome Etchant (liquid form)
- GaP1 Gallium Phosphide Etchant (liquid form)

### **Features**

- Makes gold recovery safer and easier
  - Non-hazardous
  - Reduced user health and safety risks
  - Recovery process is quick
- Minimizes wastes and lowers environmental costs
- Provides added income through gold recovery



UEI's GOLDOUT™

**For more information about UEI and UEI products, call 781-935-8878 or visit [www.unionetchants.com](http://www.unionetchants.com).**

 **Union Etchants International, Inc.**

[www.unionetchants.com](http://www.unionetchants.com)

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