Ammonium Persulphate
410 Technical Data Sheet

Description

The 410 *Ammonium Persulphate* is a copper etchant compound used as an alternative to the traditional ferric chloride to produce a cleaner copper etchant solution. One kilogram of ammonium persulfate will produce four liters of etching solution when mixed with water.

Benefits and Features

- **Transparent solution allows visual inspection of etching process**
- **Compatible with tin etch resist**
- **Non-staining solution**
- **CARB compliant**

Usage Parameters

Properties	***Value***
Shelf Life	3 y

Temperature Ranges

Properties	***Value***
Storage Temperature Limits [a)]	-16 to 27 °C [60 to 80 °F]

a) Cool, dry, and well ventilated area recommended.

Properties

Physical Property	***Value***
Appearance	White crystalline salt
Odor	None
Molecular Weight	228.18 g/mol
Density @25 °C [77 °F]	1.98 g/mL
Melting Point	120 °C [248 °F] decomposes

Health, Safety, and Environmental Awareness

Please see the 410 **Safety Data Sheet** (SDS) for more details on transportation, storage, handling and other security guidelines.

Health and Safety: Avoid breathing vapors/dusts. Wear protective gloves/clothing/eye protection. Wash hands thoroughly after handling.

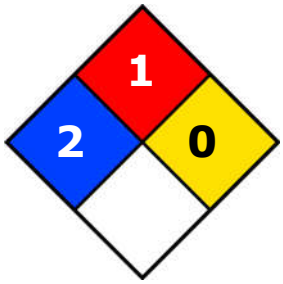
Dispose of contents in accordance with all local, regional, national, and international regulations.

Date: 12 January 2017 / Ver. 1.00

HMIS® RATING

HEALTH:	* **2**
FLAMMABILITY:	**1**
PHYSICAL HAZARD:	**0**
PERSONAL PROTECTION:	

NFPA® 704 CODES



Approximate HMIS and NFPA Risk Ratings Legend:
0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

Application Instructions

Follow the procedure below for best results. If further directions for etching or making a printed circuit board (PCB), consult the photofabrication process guide available free from your dealer.

1. Dilute 250 g per L (2.2 lb per gallon) of ammonium persulfate to water.
2. Fully immerse copper board in solution.
3. (Optional) Agitate until etching action is complete.

To speed up etching

- Warm the ammonium persulfate solution to 40 °C [104 °F].

ATTENTION! Use only glass or plastic containers.

NOTE: Recommended use of pressure release valve if storing for later use.

Packaging and Supporting Products

Cat. No.	*Packaging*	*Net Weight*	*Packaging Weight*
410-1KG	Bottle	1 kg 2.2 lb	7 kg [a] 15 lb [a]

a) Case pack of 6

Related Products and Etching Kits

- *Economy Etching Kit*: Cat. No. 416-ES
- *Photofabrication Kit*: Cat. No. 416-K
- *Professional Etching Kit*: Cat. No. 416-E

Technical Support

Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com.

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Warranty

M.G. Chemicals Ltd. warranties this product for 12 months from the date of purchase by the end user. *M.G. Chemicals Ltd.* makes no claims as to shelf life of this product for the warranty. The liability of *M.G. Chemicals Ltd.* whether based on its warranty, contracts, or otherwise shall in no case include incidental or consequential damage.

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