

# Material Safety Data Sheet

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## Section 1: Product Identification

**MSDS Code: 41603**

**Name: Micro Etch Part B**

**Related Part Numbers: 41603-250G**

Use: For use in Tank # 2 in the MG Electroless Copper-Plating System.

## Section 2: Hazardous Ingredients

CAS#	Chemical Name	Percentage by weight	ACGIH TWA	Osha Pel	Osha Stel
7775-27-1	Sodium persulphate	>99%	N/E	N/E	N/E

## Section 3: Hazards Identification

<b>Eyes:</b>	Causes eye irritation.
<b>Skin:</b>	May cause skin irritation.
<b>Inhalation:</b>	Causes respiratory tract irritation.
<b>Ingestion:</b>	Causes gastrointestinal irritation with nausea, vomiting and diarrhea.
<b>Chronic:</b>	No information found.

## Section 4: First Aid Measure

<b>Eyes:</b>	Remove contact lenses. Flush with water. Get medical aid if irritation occurs or persist.
<b>Skin:</b>	Wash skin with soap and water. Get medical aid if symptoms persist.
<b>Inhalation:</b>	Immediately remove from exposure to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
<b>Ingestion:</b>	Do not induce vomiting. Rinse mouth with water. If conscious, give 1-2 glasses of water. Get doctor immediately. Never give anything by mouth to an unconscious person.

## Section 5: Fire Fighting Measures

<b>Autoignition Temperature:</b>	N/E	<b>Flash Point:</b>	N/A	<b>LEL / UEL:</b>	N/A
<b>Extinguishing Media:</b>	Deluge with water.				
<b>General Information:</b>	Oxidizer. Greatly increases the burning rate of combustible materials. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.				

## Section 6: Accidental Release Measures

<b>Spill Procedure:</b>	Sweep dry material into a plastic container. Provide adequate ventilation. For diluted material, sprinkle absorbent compound onto spill, then sweep into a plastic container. Wipe up further residue with paper towel and place into container. Wash spill area with soap and water.
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## Section 7: Handling and Storage

<b>Handling:</b>	Use eye, skin and clothing protection. Do not ingest or inhale. Do not expose container to heat. Diluted product must be stored in a vented container as it will gas off and create pressure in a sealed container.
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**Storage:** Store in a cool, dry, well-ventilated area, away from incompatible substances.

### Section 8: Exposure Controls

**Routes of entry:** Eyes, ingestion, inhalation, and skin.  
**Ventilation:** Use adequate general or local exhaust ventilation to keep airborne concentrations below exposure limits.  
**Personal Protection:** Wear appropriate protective eyeglasses or chemical safety goggles. Wear rubber or neoprene protective clothing to prevent skin contact. Use a NIOSH approved respirator when necessary.

### Section 9: Physical and Chemical Properties

<b>Physical State:</b>	White crystals	<b>Odor:</b>	None	<b>Solubility in water:</b>	73% @25°C	<b>Evaporation Rate:</b>	N/A
<b>Boiling Point:</b>	N/a	<b>Specific Gravity:</b>	2.4	<b>Vapor Pressure:</b>	N/a	<b>Vapor Density:</b>	N/A
						<b>pH:</b>	5-7 @25°C

### Section 10: Stability and Reactivity

**Stability:** Stable (becomes unstable in presence of heat, moisture and/or contamination).  
**Conditions to avoid:** Heat, moisture and contamination.  
**Incompatibilities:** Acids, alkalis, halides (fluorides, chlorides, bromides and iodides), combustible materials, most metals and heavy metals, oxidizable materials and other oxidizers, reducing agents, cleaners, and organic or carbon containing compounds. Contact with incompatible materials can result in a material decomposition or other uncontrolled reactions.  
**Polymerization:** Will not occur.  
**Decomposition:** Oxygen that supports combustion and oxides of sulfur.

### Section 11: Toxicological Information

<b>Sensitization:</b> (effects of repeated exposure)	May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.			
<b>Carcinogenicity:</b> (risk of cancer)	No			
<b>Teratogenicity:</b> (risk of malformation in an unborn fetus)	No			
<b>Reproductive Toxicity:</b> (risk of sterility)	No			
<b>Mutagenicity:</b> (risk of heritable genetic effects)	No			
<b>Lethal Exposure Concentrations:</b>	<b>Ingestion (LD50):</b>	<b>Inhalation (LC50):</b>	<b>Skin (LD50):</b>	<b>Inhalation (TCLo):</b>
Sodium persulphate	N/A	N/A	N/A	N/A
Volatile Organic Compounds, grams per litre:		0g/L		

### Section 13: Ecological Information

**General Information:** Avoid runoff into storms and sewers, which lead into waterways. Water runoff can cause environmental damage.  
 Volatile Organic Compounds, % by weight: 0%

### Section 13: Disposal Information

**General Information:** Dispose of in accordance with all local, provincial, state, and federal regulations. Water runoff can cause environmental damage.

### Section 14: Transportation Information



**Ground Canada:** (1 KG and smaller)

Classified as **Limited Quantity**. **MSDS must accompany each carton.**  
**Refer to TDG regulations** (Canadian Transportation of Dangerous Goods regulations).  
**Recommend Shipper be trained and certified.**

**Ground USA:** (1 KG and smaller)

Classified as **Limited Quantity**. Refer to USA CFR 49 Regulations. **MSDS must accompany each carton.**  
Meets **ORM-D** label requirements and dual marking is permissible.  
**Recommend Shipper be trained and certified.**

**Ground USA:** (sizes over 1 KG)

**Shipper must be trained and certified. Refer to CFR 49 (USA), and TDG Regulations (Canada).**  
Shipping Name: **Sodium Persulphate**, UN number: **1505**, Class: **5.1**, Packing Group: **III**.  
Hazard label required – Oxidizer.

**Air:** (1 KG size)

**Shipper must be trained and certified. Refer to IATA Dangerous Goods Regulations.**  
Quantity limitations on air transport.  
Shipping Name: **Sodium Persulphate**, UN number: **1505**, Class: **5.1**, Packing Group: **III**.  
Refer to Packing Instruction: **Y516** for gross weight quantity limits.

**Air:** (25 KG size)

Prohibited for transport by air.

**Sea:**

**Shipper must be trained and certified. Refer to IMDG regulations.**  
Shipping Name: **Sodium Persulphate**, UN number: **1505**, Class: **5.1**, Packing Group: **III**.

## Section 15: Regulatory Information

### CANADA

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

#### **DSL**

All ingredients in this product are listed on the Domestic Substances List

#### **Health Canada**

Products produced by MG Chemicals intended for retail display conform to the Canadian Consumer Labeling regulations.

#### **Industry and Science Canada**

MG Labels products intended for the workplace to conform to WHMIS labeling regulations. Product identification, net quantity declaration, minimum printing type size heights, and packaging of this product is in compliance.

#### **WHMIS**

This product belongs to the following categories: **C, E**

#### **CAA** (Clean Air Act, USA)

This product does not contain any class 1-ozone depletors.

This product does not contain any class 2-ozone depletors.

This product does not contain any chemicals listed as hazardous air pollutants.

## Section 15: Regulatory Information

### USA

**SARA** (Superfund Amendments and Reauthorization Act of 1986, USA, 40 CFR 372.4)

This product does not contain toxic chemicals subject to the reporting requirements of section 313 of Title III of the superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372

**EPCRA** (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product does not contain chemicals subject to the reporting requirements of section 313 Title III of the SARA of

1986 and 40 CFR part 372

**TSCA** (Toxic Substances Control Act of 1976, USA)  
All substances are TSCA listed.

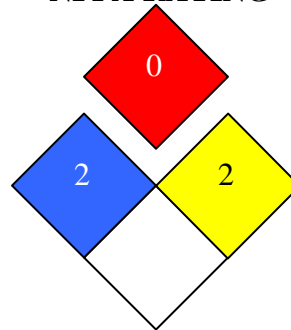
**California Proposition 65** (Chemicals known to cause cancer or reproductive toxicity, May 1, 1997 revision, USA)  
This product does not contain chemicals known to the state to cause reproductive toxicity or cancer.

### HMIS RATING

<b>HEALTH:</b>	2
<b>FLAMMABILITY:</b>	0
<b>PHYSICAL HAZARD:</b>	2
<b>PERSONAL PROTECTION (PPE):</b>	H

Protection = H (Splash goggles, gloves, protective apron, and vapor respirator.)

### NFPA RATING



### EUROPE RoHS

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, or PBDE's, and complies with European RoHS regulations.

### WEEE

This product is not a piece of electrical or electronics equipment, and is therefore not governed by this regulation.

## Section 16: Other Information

**Definitions:** N/A = not applicable, N/E = not established

**Disclaimer:** This material safety data sheet is provided as an information resource only. M.G. Chemicals believes the information contained herein is accurate and compiled from reliable sources. It is the responsibility of the user to verify its validity. The buyer assumes all responsibility of using and handling the product in accordance with federal, state, and local regulations.