

# Material Safety Data Sheet

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|----------------------------------------------------------------|---------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>Revision Date</b><br>February 2 <sup>nd</sup> , 2005        | <b>Prepared by</b><br>David MacKinnon | <b>Technical Information</b><br>1-800-201-8822 or <a href="mailto:support@mgchemicals.com">support@mgchemicals.com</a> |
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## Section 1: Product Identification

**MSDS Code: 410**                      **Name: Ammonium Persulphate**

**Related Part Numbers: 410-1KG; 410-25KG**

Use: For etching printed circuits.

## Section 2: Hazardous Ingredients

| CAS#      | Chemical Name        | Percentage by weight | ACGIH TWA | Osha Pel | Osha Stel |
|-----------|----------------------|----------------------|-----------|----------|-----------|
| 7727-54-0 | ammonium persulphate | 100                  | n/e       | n/e      | n/e       |

## Section 3: Hazards Identification

**WHMIS Codes:** C, E

**NFPA Ratings:** Health 2 Flammability 0 Reactivity 2

**HMIS Ratings:** Health 2 Flammability 0 Reactivity 2

**Eyes:** Causes severe eye irritation

**Skin:** May cause skin irritation.

**Inhalation:** Cause irritation of respiratory tract

**Ingestion:** Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

**Chronic:** No information found.

## Section 4: First Aid Measure

**Eyes:** Remove contact lenses. Flush with water or saline for 20 minutes. Get medical aid.

**Skin:** Wash skin with large quantities of soap and water. Get medical aid if symptoms persist.

**Inhalation:** Immediately remove from exposure to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Ingestion:** Do not induce vomiting. If conscious, give 1-2 glasses of water. Get medical aid.

## Section 5: Fire Fighting Measures

**Autoignition Temperature:** n/e                      **Flash Point:** n/a                      **LEL / UEL:** n/a

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.

**General Information:** 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

**Spill** Sweep into a plastic container.

**Procedure:**

## Section 7: Handling and Storage

**Handling:** Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Do not ingest or inhale. Do not expose container to heat or flame. Diluted product must be stored in a vented container as it will gas off and create pressure in a sealed container.

**Storage:** Keep away from sources of ignition. 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 appropriate protective clothing to prevent skin contact. Use a NIOSH approved respirator when necessary.

## Section 9: Physical and Chemical Properties

|                        |       |                          |          |                        |           |                          |               |
|------------------------|-------|--------------------------|----------|------------------------|-----------|--------------------------|---------------|
| <b>Physical State:</b> | Solid | <b>Odor:</b>             | odorless | <b>Solubility:</b>     | 80g/100ml | <b>Evaporation Rate:</b> | 1.5 (ether=1) |
| <b>Boiling Point:</b>  | n/e   | <b>Specific Gravity:</b> | 1.98     | <b>Vapor Pressure:</b> | 0         | <b>Vapor Density:</b>    | 1.6 (Air=1)   |
|                        |       |                          |          |                        |           | <b>pH:</b>               | 7             |

## Section 10: Stability and Reactivity

|                             |                                                                                                                                                                                                                    |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stability:</b>           | Substance is shock sensitive and thermally unstable. Decomposes when heated.                                                                                                                                       |
| <b>Conditions to avoid:</b> | Temperatures over 40°C, ignition sources, incompatible materials, contact with water, metals, combustible materials, organic materials, and reducing agents.                                                       |
| <b>Incompatibilities:</b>   | Can be explosive when mixed with aluminum powder or sodium peroxide. Catalytic decomposition may occur in the presence of metals such as lead, silver, copper, magnesium, zinc, cadmium, nickel, iron, and cobalt. |
| <b>Polymerization:</b>      | Will not occur.                                                                                                                                                                                                    |
| <b>Decomposition:</b>       | Nitrogen oxides, oxides of sulfur, ammonia and/or derivatives, nitrogen.                                                                                                                                           |

## 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>                                                                                      | 689 mg/kg (rat) | <b>Inhalation (LC50):</b> | n/e | <b>Skin (LD50):</b> n/e |

## Section 12: Ecological Information

**General Information:** Avoid runoff into storms and sewers which lead into waterways. Water runoff can cause environmental damage.

**Environmental Impact Data:** (percentage by weight)

CFC: 0      HFC: 0      Cl.Solv.: 0      VOC: 0      HCFC: 0      ODP: 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:** (all sizes 5kg or less)

Limited quantity, ORM-D.

**Ground:** (sizes over 5kg)

Shipping Name – Ammonium Persulphate, class 5.1, UN# 1444, Packing Group III. Hazard label required – Oxidizer. Shipper must be trained and certified. Refer to CFR 49, TDG regulations (Canada).

**Air:**

Prohibited for transport by air.

**Sea:**

Shipper must be trained and certified. Refer to IMDG regulations.

### Section 15: Regulatory Information

**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.**

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

None of the chemicals in this product have a reportable quantity.

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

This product does not contain any 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.

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

This product does not contain any class 1 ozone depleters.

This product does not contain any class 2 ozone depleters.

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

**California Proposition 65** (Chemicals known to cause cancer or reproductive toxicity, May 1, 1997 revision, USA)

This product does not contain any chemicals listed.

**Health Canada**

Labeling and containers used in this product are listed in compliance with Consumer Chemicals and Container regulations.

**Environment Canada**

Chemicals in this product are listed on the Domestic Substances List in the Canadian Environmental Protection Act

This product does not contain any ozone depleting substances.

**Industry and Science Canada**

Labeling, product identity, net quantity declaration, minimum printing type size heights, and packaging of this product is in compliance with the Consumer Packaging and Labeling Act and Regulations. This product is not slack filled in accordance to chapter 4 prohibitions.

**RoHS** (The restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2004).

This product is RoHS compliant.

### Section 16: Other Information

**Definitions:** n/a = not applicable, n/e = not established



Registered Quality System **ISO 9001**  
QMI Certificate #004008  
Toronto, Ontario, Canada

**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.