



Material Safety Data Sheet

Monopole, Inc.

Product Name: METAL ETCH

Issue Date: May 2012

Monopole Inc. encourages and expects you to read and understand the entire MSDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

SECTION 1: Product and Company Identification

Product Name: METAL ETCH

Product Code: 9400

COMPANY IDENTIFICATION

Monopole, Inc.
4661 Alger Street
Los Angeles, CA 90039
Tel: (818) 500-8585
Fax: (818) 502-0818

EMERGENCY TELEPHONE NUMBERS:
Health emergency : (818) 500 - 8585
Poison center..... : (818) 356 - 3129
Chemtrec..... : (800) 424 - 9300

SECTION 2: Hazards Identification

EMERGENCY OVERVIEW

Color: Opaque
Physical State: Liquid
Odor: Acidic

CAUTION! Inhalation of vapor or mist can cause headache, nausea and irritation of the nose, throat and lungs. Severe eye/skin irritant.

POTENTIAL HEALTH EFFECTS

Inhalation: Inhalation of vapor or mist can make it difficult to breath and cause irritation of nose, throat, and respiratory tract.

Skin Contact: Prolonged or repeated skin contact can cause skin burns.

Eye Contact: Direct eye contact can cause eye damage.

SECTION 3: Hazardous Ingredients

Hazardous Components	% (by weight)	CAS#	OSHA (PEL)	ACGIH (TWA)
Phosphoric Acid	5-10	7664-38-2	1 mg/m3	1 mg/m3
Nitric Acid	5-15	7697-37-2	4 ppm STEL	2 ppm

**Only toxic chemicals or hazardous compounds are subject to the reporting requirements*

SECTION 4: First Aid Measures

Inhalation: Move victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing. If skin irritation persists, call a physician.

Eye Contact: Immediately flush eyes thoroughly with water for 15 minutes lifting lower and upper eyelids occasionally. Get medical attention immediately.

Ingestion: Do not induce vomiting. Give large quantities of milk or water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

SECTION 5: Fire Fighting Measures

FLASH POINT: Noncombustible

METHOD USED: TCC

Contact with most metals causes formation of flammable and explosive hydrogen gas. Not considered to be an explosion hazard.

FLAMMABLE LIMITS IN AIR BY VOLUME: **LOWER (LEL):** N/A **UPPER (UEL):** N/A

HAZARDOUS DECOMPOSITION: None.

EXTINGUISHING MEDIA: Use any means suitable for extinguishing surrounding fire. Water spray may be used to keep the fire exposed containers cool.

SPECIAL HAZARDS DURING FIRE FIGHTING: Material can splatter above 100°C/212°F. Dried product can burn.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS: Wear full protective clothing and NOISH-approved self-contained breathing apparatus.

SECTION 6: Accidental Release Measures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Ventilate area of leak or spill. Isolate areas and keep unnecessary personnel from entering. Neutralize with alkaline material (soda ash, lime), then absorb with an inert material (dry sand, earth) and place in a chemical waste container. Do not use combustible materials, such as saw dust.

PERSONAL PRECAUTIONS: Use appropriate personal protective equipment as defined in Section 8.

ENVIRONMENTAL PRECAUTIONS: CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water. Do not flush in the sewer.

SECTION 7: Handling and Storage

HANDELING

Avoid contact with eyes, skin and clothing. Wash skin and face thoroughly after handling. Keep container tightly closed. Do not breathe vapors, mist or gas. Observe all warnings and precautions listed for the product.

STORAGE

Store temperatures: 34°F - 110°F

Keep from freezing – product stability may be affected.

Store in a cool, dry, ventilated area away from sources of heat, moisture and direct sunlight.

SECTION 8: Exposure Controls and Personal Protection

EXPOSURE LIMITS are listed below.

Hazardous Components	Regulation	Type of listing	Value
Phosphoric Acid	OSHA	PEL	1 mg/m ³ (TWA)
	ACGIH	TLV	3 mg/m ³ (STEL)
Nitric Acid	OSHA	PEL	2 ppm (TWA)
	ACGIH	TLV	4 ppm (STEL)

PERSONAL PROTECTION

Eye Protection: Wear chemical safety glasses with side-shields. Eye protection worn must be compatible with respiratory protection system employed.

Hand Protection: The glove(s) listed below may provide protection against permeation. (Gloves of other chemically resistant materials may not provide adequate protection): Neoprene gloves.

Respirator Protection: Wear a properly fitted NIOSH approved (or equivalent) half-mask, air-purifying respirator.

Protective Measures: Facilities storing or utilizing this material should be equipped with an eyewash facility. Do not expose the product directly to skin, wear impervious protective clothing to prevent direct contact. Wash clothes, skin, hands and face after use.

Engineering Measures: A system of local exhaust is recommended.

SECTION 9: Physical and Chemical Properties

Appearance and Odor: Opaque liquid, acidic odor

Boiling Point: 100°C (212°F) Water

Flash Point: Noncombustible

Flammable Limits: LEL: Not Applicable UEL: Not Applicable

Vapor Pressure/Density (Air=1): ND

Specific Gravity (H₂O=1): 1.27

Water Solubility: Soluble

Viscosity:

Evaporation Rate:

VOC: Zero

SECTION 10: Stability and Reactivity

Hazardous reactions: None known
Stable

Materials to Avoid (Incompatibility): Alcohols and glycols, chlorine, peroxide, strong bases, metallic powders, carbides, combustible organics.

Hazardous Polymerization: Will not occur

Conditions to Avoid: Heat.

SECTION 11: Toxicological Information

There is no data available for this material.

SECTION 12: Ecological Information

When released into the soil, this material may leach into groundwater. When released into groundwater, acidity may be readily reduced by natural water hardness minerals. the phosphate however, will persist indefinitely.

SECTION 13: Disposal Considerations

Environmental Precautions: CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Waste Classification: This product should be handled as hazardous waste and sent to a RCRA Approved Incinerator or disposed of in a RCRA Approved Waste Facility.

Waste Disposal Method: Dispose of in accordance with Local, State, and Federal Regulations. Regulations may vary in different locations. DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER.

MONOPOLE, INC. HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION 3: HAZARDOUS INGREDIENTS.

SECTION 14: Regulatory Information

DOT PROPER SHIPPING NAME: Not regulated.

IATA PROPER SHIPPING NAME: Not Regulated.

IMO PROPER SHIPPING NAME: Not regulated (Not dangerous for transport).

STATE REGULATIONS: CALIFORNIA - None.

Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations.

TOXIC SUBSTANCE CONTROL ACT: No known chemicals comprising this product are listed on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

CALIFORNIA PROPOSITION 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): There are no chemicals present known to the state of California to cause cancer or reproductive toxicity.

HAZARD RATING SYSTEM

NFPA	Toxicity	Fire	Reactivity	Health
	3	0	0	2

USER'S RESPONSIBILITY: A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions, in addition to those described herein, are required. Any health hazard and safety information herein should be passed on to your customers or employees, as the case may be.

DISCLAIMER: To the best of our knowledge, the information contained herein is accurate, but no representation, guarantee or warranty, expressed or implied, is made as to the accuracy, reliability or completeness of the information. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Monopole Inc. urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.