

Section 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: ASTM #76 Picral Etchant
Part Number: ETCH-ASTM76 (all sizes)
Relevant Use: Laboratory Chemicals
Manufacturer: Sturbridge Metallurgical Services Inc.
City, State, Zip: Sturbridge MA 01566
Phone Number: 508-347-5288
Emergency Phone: **CHEMTREC 1-800-424-9300**

Section 2: Hazard(s) Identification

Hazardous classification of the substance or mixture:

Hazard Class	Category code
Acute toxicity (oral)	4
Skin Corrosion/ Irritation	2
Eye Damage / Irritation	1
Skin sensitization	1
Specific Target Organ Toxicity –Single Exposure	2
Flammable Liquid	2

Pictogram:



Signal word: Danger

Hazard Statements:

H225- Highly flammable liquid and vapor
H302- Harmful if swallowed.
H315- Causes skin irritation.
H317- May cause an allergic skin reaction.
H318- Causes serious eye damage.
H371- May cause damage to organs.

Precautionary Statements:

P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, sparks and open flame. No smoking.
P233 Keep container tightly closed.
P240 Ground container and receiving equipment.
P241 Use explosion-proof equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe fumes, mist, vapors, or spray.
P261 Avoid breathing fumes, mist, vapors, or spray.
P264 Wash arms, hands and face thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves and eye protection.

Response Statements:

P301+P312 IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P311 IF exposed or concerned: Call a POISON CENTER or physician.
P308+P313 IF exposed or concerned: Get medical attention.
P310 Immediately call a POISON CENTER or physician.
P321 Specific treatment (Wash areas of contact with water).
P330 Rinse mouth.
P332+P313 If skin irritation occurs: Get medical attention.
P362 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.
P370+P378 In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.

Storage Statement:

P403+ P233 + P235 -Store in a well-ventilated place. Keep container tightly closed. Keep cool.
P405-Store locked up.
P230 –Keep wetted with ethanol

Disposal statement:

P501-Dispose of contents in accordance with local, state, federal and international regulations.

Hazard(s) not otherwise classified: Explosive when dry. Inspect the content periodically. Do not let it dry completely. Wipe clean the screw top of the container before sealing.

HMIS Ratings:

Health: 3
Flammability: 3
Reactivity: 2
Contact: 3

Section 3: Composition/Information on Ingredients

Chemical Name	CAS No.	% Concentration
Ethanol (ethyl alcohol)	64-17-5	Balance
Picric Acid	88-89-1	Approx. 4%

Section 4: First-Aid Measures

First-aid measures general

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area

First-aid measures after inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Get medical aid immediately.

First-aid measures after skin contact

Wash the areas of contact with water for at least 15 minutes while removing contaminated clothing and shoes. Skin stains may be removed using reagent alcohol or dilute Ammonium Hydroxide Solution. Get medical aid immediately.

First-aid measures after eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical aid immediately.

First-aid measures after ingestion

Rinse mouth. Do not induce vomiting. Get medical aid immediately.

Most important symptoms and effects, both acute and delayed

May stain skin

Section 5: Fire-Fighting Measures

Suitable extinguishing media

Dry chemical, "alcohol foam", carbon dioxide, or water spray.

Special hazards arising from the substance or mixture

In case of fire, the following can be released: acidic liquid, carbon monoxide and carbon dioxide. Explosive if dry, prevent evaporation.

Advice for firefighters

Wear full protective clothing and self-contained respirator.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources.

Environmental precautions

Do not allow the material to be released to the environment without proper government permits.

Methods and materials for containment and cleaning up

Absorb with liquid binding material (sand, diatomite, acid binder, universal binders, saw dust). Dispose contaminated material as waste according to section 13. Ensure adequate ventilation. Keep away from ignition sources.

Section 7: Handling and Storage

Precautions for safe handling

Wipe clean the screw top of the container before sealing. Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation at the workplace. Protect against electrostatic charges. Fume can combine with air to form an explosive mixture.

Conditions for safe storage

Keep container tightly sealed. Store in an approved flammable liquid storage container/area.

Incompatibilities

Store away from oxidizing agents, strong bases. Do not store on concrete floors (can form explosive calcium picrate). May react with various substances, see Section 10.

Specific storage requirement(s)

Inspect the content periodically. Do not let it dry completely. Keep wetted with ethanol.

Section 8: Exposure Controls/Personal Protection Exposure Limits

Component	CAS No.	ACGIH TLV	OSHA PEL
Ethanol (ethyl alcohol)	64-17-5	1000 ppm STEL	1000 ppm TWA
Picric Acid	88-89-1	0.1 mg/m3 TWA	0.1 mg/m3 TWA skin

Personal protective equipment

Eye/face protection-Wear safety glasses or goggles.

Skin protection- Wear protective clothing and chemical resistant gloves

Respiratory protection -Use self-contained respiratory device in emergency situation.

Engineering controls-Use general and/or local exhaust ventilation to control the vapor concentration.

Section 9: Physical and Chemical Properties

Physical state: Liquid

Appearance: Form: liquid, yellow

Color: yellow

UFL/LEL: 19 Vol% / 3.3 Vol %

LFL / LEL: Not determined

Odor: alcohol like

Vapor pressure: ~44 mm Hg @20 °C

Odor Threshold: Not determined

Vapor density: ~6.6 lbs/gal

pH: Not determined

Relative density: ~0.79 g/cm3 @16 °C

Melting Point / Freezing Point: -114°C

Water Solubility: Miscible

Boiling Point: 78°

Flash Point: 13°C

Relative evaporation rate: Not determined

Flammability (solid, gas): Not applicable

Partition coefficient (n-octanol/water): Not determined

Auto-ignition temperature: Not determined

Decomposition temperature: Not determined

Viscosity: Not determined

Section 10: Stability and Reactivity

Reactivity: No information.

Chemical stability: Stable under recommended conditions.

Stabilizer(s): Ethanol.

Safety issues that may arise should the product change in appearance: Picric Acid may detonate if allowed to dry completely. Do not touch the bottle if any crystalline residue is present around the cap. Call an explosive expert immediately.

Thermal decomposition/ conditions to Avoid: Excessive heat, incompatible materials, ignition sources, dryness.

Possibility of hazardous reactions: see incompatibilities.

Incompatibilities: Strong bases and oxidizers. Picric acid will react with metals including copper, lead, zinc, and aluminum; ammonia, concrete, plaster, salts, gelatin, silver salts, alkali metals, and many other materials to form dangerously sensitive salts.

Hazardous decomposition products: oxides of carbon, when heated to decomposition.

Section 11: Toxicological Information:

For Picric Acid:

Acute toxicity: Oral rat LD50: 200mg/kg.

Other exposure effect:

Inhalation: May cause irritation.

On the Skin: May stain skin and cause irritation.

On the Eye: May cause irritation.

Sensitization: May cause allergic skin reaction.

Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. May be absorbed through skin. No classification data on carcinogenic properties of this material is available from NTP, IARC or OSHA.

Section 12: Ecological Information

Toxicity

Ecology – water: No data available

Persistence and degradability: No data available

Behavior in environmental system:

Bioaccumulative potential: No information.

Mobility in soil: No information.

Additional ecological information: No information.

Other adverse effects: No information

Section 13: Disposal Considerations

Place in a chemical waste container for proper disposal in an approved waste disposal facility. Dispose of the content and container in accordance with local, regional, national, international regulations.

Section 14: Transportation Information

D.O.T. shipping name: Flammable liquid, Corrosive n.o.s., (Ethanol)

D.O.T. hazard class: 3

UN number: UN1993

Packing group: II

Section 15: Regulatory Information

Not meant to be all inclusive, selected regulation represented OSHA status: These items meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.

TSCA status: All components are listed.

Section 16: Other Information

Disclaimer: The information above is believed to be accurate and represents the best information currently available to us. SMS, Inc. makes no warranty, express or implied, as to its accuracy, and we assumes no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. We shall not be liable for any damages to person or property resulting from its use.