

Safety Data Sheet (SDS)

Section 1: Identification

Product identifier: S1095 Carbon Steel Etchant

Other name(s): GE Class E

Item number(s): 1026

Identified use: SU24 Scientific research and development.

Details of the supplier of the safety data sheet:

ES Laboratory, LLC

2041 E. Gladstone St. Unit N Glendora, CA 91740 USA

Tel: 626-208-9011

Emergency telephone number:

CHEMTREC®

Domestic: 800-424-9300

International: 703-527-3887

Section 2: Hazard(s) Identification

Hazardous classification of the substance or mixture:

Hazard Class	Category code
Corrosive to metals	1
Skin irritation	2
Eye irritation	2A

Signal word: Warning

Pictogram:



Hazard statement(s):

H290 May be corrosive to metals.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statement(s):

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P234 Keep only in original container.

P264 Wash skin thoroughly after handling.

Response statement(s):

P302 + P352 ON SKIN: Wash with plenty of soap and 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.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

P337 + P313 If eye irritation persists: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P390 Absorb spillage to prevent material damage.

Storage statement(s):

P406 Store in corrosive resistant stainless steel container with a resistant inner liner.

Disposal statement(s): None

Hazard(s) not otherwise classified: No information.

Label elements: See tables above

HMIS Ratings:

Health: 3

Flammability: 0

Physical: 2

NFPA Ratings:

Health: 3

Flammability: 0

Reactivity: 0

Special hazard: None

Section 3: Composition/Information on Ingredients

Component	CAS No.	Concentration
Nitric acid	7697-37-2	4-5%

Any concentration shown as a range is to protect the confidentiality or is due to batch variation. Only hazardous components are shown.

Section 4: First-Aid Measures

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.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid immediately.

Skin contact: Wash the areas of contact with water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately.

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

Most important symptoms and effects, both acute and delayed: No information.

Recommendation for immediate medical care and special treatment needed, when necessary: No information.

Section 5: Fire-Fighting Measures

Extinguishing media: Water, foam, dry chemical, or carbon dioxide.

Special hazards arising from the substance or mixture: In the case of fire, the following can be released: acidic liquid or fume.

Special protective equipment or precautions for firefighters: Wear full protective clothing and self-contained respirator if necessary.

Section 6: Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.

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: Use a neutralizing agent. Absorb with a liquid binding material (sand, diatomite, acid binder, universal binders, sawdust). Dispose of contaminated material as waste according to section 13. Ensure adequate ventilation.

Section 7: Handling and Storage

Precautions for safe handling: Wear protective equipment. Ensure good ventilation in the workplace. Open and handle container with care.

Condition for safe storage: Keep container tightly sealed. Store in an approved corrosive liquid storage container/area.

Incompatibilities: Store away from strong bases.

Specific storage requirement(s): No information.

Section 8: Exposure Controls/Personal Protection

Exposure Limits

Component	CAS No.	ACGIH TLV	OSHA PEL
Nitric acid	7697-37-2	2 ppm TWA 4 ppm STEL	2 ppm TWA

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

Eye protection: Wear safety glasses or goggles.

Skin protection: Wear protective clothing and chemical resistant gloves.

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

Section 9: Physical and Chemical Properties

Appearance:

Clear liquid

UFL/LEL:	Not determined
LFL/LEL:	Not determined
Odor:	Not determined
Vapor pressure:	Not determined
Odor threshold:	Not determined
Vapor density:	Not determined
pH:	Not determined
Relative density:	Not determined
Melting Point/Freezing point:	Not determined
Solubility in water:	Miscible
Boiling point/boiling range:	Not determined
Flash point:	Not determined
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 storage conditions.

Stabilizer(s): Not required.

Safety issues that may arise should the product change in appearance: No information.

Thermal decomposition/ conditions to Avoid: Decomposition will not occur if used and stored according to specifications.

Possibility of hazardous reactions: see incompatibilities.

Incompatibilities: Strong bases.

Hazardous decomposition products: acidic fume, when heated to decomposition.

Section 11: Toxicological Information

For Nitric Acid:

Acute toxicity:

Inhalation rat LC50/4H: 0.13 mg/1/4H

Oral (human) LDLo: 430 mg/kg.

Other exposure effect:

On the Skin: Strong corrosive effect.

On the Eye: Strong corrosive effect.

Sensitization: No sensitizing effects known.

Additional toxicological information No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP, IARC or OSHA.

Section 12: Ecological Information

Toxicity:

Aquatic toxicity: No information.

Persistence and degradability: No information.

Behavior in environmental system:

Bioaccumulative potential: No information.

Mobility in soil: No information.

Additional ecological information: Avoid transfer into the environment.

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: Transport Information

D.O.T. shipping name: Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid)

D.O.T. hazard class: 8

UN number: UN3264

Packing group: III

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.

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