MATERIAL SAFETY DATA SHEET
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MSDS #1023

DATE: 01/24/03

Supersedes MSDS
1023 03/01/02

SECTION I - PRODUCT IDENTIFICATION

Trade Name: Weak Nitric Acid **Chemical Name:** Nitric Acid, HNO_3

Synonyms: 57% Nitric Acid, Tower Acid

Product Appearance & Odor: Clear to yellowish/brown fuming liquid. Pungent, acrid odor.

DOT Hazard Shipping Description: Nitric Acid 8 UN2031 II RQ*
Label: Corrosive

* "RQ" required only if container (drums, rail tank car, etc.) has 1,000 pounds or more of Nitric Acid.

NFPA Hazard Classification:
Health (Blue) = 3
Flammability (Red) = 0
Reactivity (Yellow) = 0
Special Hazard (White) = Corrosive

HMIS Classification:

Health	3
Flammability	0
Reactivity	1
PPE	K

SECTION II - HAZARDOUS INGREDIENTS

Ingredients:	CAS#	% (Range)	ACGIH-TLV	OSHA-PEL
Nitric Acid	7697-37-2	56-58	5 mg/m^3	5 mg/m^3

Ingredients, other than those mentioned above, as used in this product are not hazardous as defined under current Department of Labor regulations.

SECTION III - PHYSICAL DATA

Boiling Point: 119°C (246°F)

Vapor Pressure: 6.7-7.0 mm Hg at 20°C

Vapor Density: (Air=1) 2.2

Density: 1.34-1.36 g/cc @ 20°C

Percent Volatile by Volume: 100% at 122°C

Solubility in Water: Complete

Evaporation Rate (Butyl Acetate = 1): <1

Melting Point: - 20°C (- 4°F)

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: Not Applicable **Flammable Limits:** Not Applicable

Extinguishing Media: Not Applicable

Special Fire Fighting Procedures: Soak with water. Use water spray to cool containers and reduce and knock down vapors. Apply water from as far away as possible and avoid directing water into the acid. Neutralize small amounts of spilled acid with crushed limestone, soda ash or lime. Wear self-contained breathing apparatus and full fire-fighting protective gear.

Unusual Fire and Explosion Hazards: Will emit oxides of nitrogen upon heating. Strong oxidizer. May cause spontaneous combustion when in contact with organic or combustible materials.

SECTION V - HEALTH HAZARD DATA

Effects of Overexposure

Eyes: Will produce severe, immediate damage and may result in permanent damage.

Skin: Will produce immediate, penetrating chemical burns.

Ingestion: Will cause chemical burns to digestive tract. Based on toxicity data for other acids, not expected to be toxic by oral exposure as defined by OSHA.

Inhalation: Highly toxic by inhalation as defined by OSHA. May cause burning of the eyes, nose, and throat. Extreme inhalation may cause difficult breathing, loss of consciousness. Lung damage may appear after a delay of up to 48 hours after exposure.

Emergency and First Aid Procedures

Eyes: Irrigate with running water for at least fifteen minutes. Seek immediate medical attention.

Skin: Immediately remove contaminated clothing. Flush with running stream of water for at least fifteen minutes. Wash with soap. Seek medical attention.

Ingestion: Do not induce vomiting. Drink three or more glasses of water or milk to dilute acid. Seek immediate medical attention.

Inhalation: Remove from exposure immediately. Restore or support respiration. Seek medical attention.

Special Considerations: If exposure to Nitric Acid vapor occurs, medical observation should continue for 24 - 48 hours after exposure. Delayed reactions may cause pulmonary edema.

SECTION VI - REACTIVITY DATA

Stability: Stable under normal conditions.

Conditions to Avoid: Avoid exposing to sunlight, which promotes oxide formation.

Materials to Avoid (Incompatibility): Bases. Organic and combustible materials. Will corrode most metals. Beware of containers, pumps, and hoses of inadequate construction and/or contamination by incompatible materials.

Hazardous Decomposition Products: Nitrogen Oxides (NO_x)

Hazardous Polymerization: Will not occur.

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in Case Material is Released or Spilled: Evacuate unnecessary personnel to safe area upwind of spill. Nitric acid vapor is denser than air and will concentrate in low spots. If necessary to enter spill area, wear full protective clothing including boots and proper breathing apparatus. Dike large spills and pump to salvage. If not possible to salvage, neutralize with soda ash or lime. If possible, carefully dilute the spill with water to slow down the vigorous neutralization reaction. Do not get water in salvage containers since a violent reaction may occur. Notify authorities in accordance with emergency response procedures. Only personnel trained in emergency response should respond. Follow Federal, State, and local spill reporting requirements.

Waste Disposal Method: Disposal must comply with Federal, State and local regulations. If product becomes a waste, it is potentially regulated as a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR, part 261. Review disposal requirements with a person knowledgeable with applicable environmental law (RCRA) before disposing of any hazardous material.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Ventilation: Mechanical ventilation and/or local exhaust is recommended where needed to meet TLV requirement.

Respiratory Protection: Not required for normal operations. For abnormal conditions, such as a spill, self-contained breathing apparatus is recommended. Acid gas respirators are suggested when acid is transferred or sampled.

Protective Clothing: Neoprene or PVC gloves are required. Where spill or splash potential exists, rubberized aprons or chemical resistant suits are strongly recommended.

Eye Protection: Acid proof goggles and face shield should be required where acid is transferred, sampled, or where persons are otherwise potentially exposed. Eye baths should be provided when direct contact is possible.

Other Precautions Required: Provide safety showers and eyewash in immediate vicinity.

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storage: Store in clean, cool, well-ventilated area away from organic chemicals, bases, and metal powders.

Other Precautions: Avoid hydrocarbon lubricants and packing materials. Corrosion-resistant materials, such as stainless steel, must be used.

SECTION X - SPECIAL INFORMATION

This product contains the following substances that are 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.

Chemical Name	CAS Number	% By Weight
Nitric Acid	7697-37-2	56 – 58%

Moderately toxic to aquatic organisms based on algae data and on fish data for other acids as defined by USEPA.