



Material Safety Data Sheet



HMIS	
Health Hazard	3
Fire Hazard	0
Reactivity	0

PPE (See Section 15)



Section 1. Chemical Product and Company Identification

Trade Name	Metal Analysis Test 1	Code	RE/MA1
		CAS #	7697-37-2
Manufacturer	HazTech Systems, Inc. P.O. Box 627 164 Dinsmore Fortuna, CA 95540	RTECS	QU5775000
Commercial Name	Nitric acid	TSCA	TSCA 8(b) inventory: Nitric acid
Synonyms	MA-1	CI #	
Chemical Formula	HNO ₃ , H ₂ O	In case of emergency contact CHEMTREC (24 hours) at 800-424-9300 HazTech Systems, Inc. 800-337-2497 Spectrum Chemical Mfg. Corp. 310-516-8000	
Supplier	Spectrum Chemical Mfg. Corp. 14422 S. San Pedro St. Gardena, CA 90248		

Section 2. Composition and Information on Ingredients

Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m ³)	STEL	CEIL (mg/m ³)	
Water	7732-18-5				15%
Nitric acid, fuming	7697-37-2	5		4	85%

Toxicological Data on Ingredients Nitric acid, fuming LD50: Not available. LC50: Not available.

Section 3. Hazards Identification

Potential Acute Health Effects	Extremely hazardous in case of skin contact (permeator). Very hazardous in case of eye contact (irritant), . Hazardous in case of skin contact (corrosive, irritant), of ingestion. Slightly hazardous in case of inhalation (lung sensitizer). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Inflammation of the eye is characterized by redness, watering, and itching.
Potential Chronic Health Effects	Extremely hazardous in case of skin contact (corrosive, irritant, permeator), of eye contact (irritant), of ingestion, of inhalation. Non-sensitizer for skin. CARCINOGENIC EFFECTS: Classified 4 (No evidence.) by NTP, None. by OSHA, None. by NIOSH [Nitric acid, [70%]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs. Repeated or prolonged inhalation of vapors may lead to chronic respiratory irritation.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 5. Fire and Explosion Data

Flammability	Non-flammable.
Auto-Ignition Temperature	Not applicable.
Flash Point	Not applicable.
Flammable Limits	Not applicable.
Products of Combustion	Not applicable.
Fire Hazards in Presence of Various Substances	Not applicable.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions	Not applicable.
Special Remarks on Fire Hazards	Not applicable.

Section 6. Accidental Release Measures

Small Spill	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate.
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Section 7. Handling and Storage

Precautions	Do not ingest. Do not breathe gas/fumes/ vapor/spray. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as reducing agents, combustible materials, organic materials, metals, acids, alkalis.
Storage	Keep in HazCat Kit.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use in a well ventilated area.
Personal Protection	Gloves and goggles.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid	Volatility	Not available
Molecular Weight	Not available	Odor Threshold	Not available
pH (1% Solution in Water)	<2 (Acidic)	Water/Oil Dist. Coeff.	Not available
Boiling Point	Not available	Ionicity (in Water)	Not available
Melting Point	Not available	Dispersion Properties	Not available
Critical Temperature	Not available	Solubility	Water
Specific Gravity	Not available	Odor	Unpleasant
Vapor Pressure	Not available	Taste	Not available
Vapor Density	Not available	Color	Colorless

Section 10. Stability and Reactivity Data

Stability	Product is stable.	Corrosivity	Non-corrosive in presence of glass.
Instability Temperature	Not available.	Special Remarks on Corrosivity	Not available.
Conditions of Instability	Not available.	Polymerization	Will not polymerize.
Incompatibility with Various Substances	Extremely reactive or incompatible with reducing agents, combustible materials, organic materials, metals, alkalis. Reactive with acids.		

Section 11. Toxicological Information

Route of Entry	Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute toxicity of the vapor (LC50): 67 4 hours (Rat).
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Classified 4 (No evidence.) by NTP, None. by OSHA, None. by NIOSH [Nitric acid,70%]. Causes damage to the following organs: lungs, mucous membranes.
Other Toxic Effects on Humans	Extremely hazardous in case of skin contact (permeator), of eye contact (corrosive), of inhalation (lung corrosive). Hazardous in case of skin contact (corrosive, irritant), of ingestion.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on Other Toxic Effects on Humans	Not available.

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are more toxic.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Disposal Recycle to process, if possible. Consult your local or regional authorities.

Section 14. Transport Information

DOT Classification Class 8: Corrosive material

Identification : Nitric acid (Nitric acid, fuming) UNNA: UN2031 PG: II

Special Provisions Marine Pollutant
for Transport

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations Rhode Island RTK hazardous substances: Nitric acid, fuming
 Pennsylvania RTK: Nitric acid, 70%
 Minnesota: Nitric acid, fuming
 Massachusetts RTK: Nitric acid, 70%
 New Jersey: Nitric acid, fuming
 TSCA 8(b) inventory: Nitric acid, 70%
 TSCA 8(d) H and S data reporting: Nitric acid, fuming: June 1999
 SARA 302/304/311/312 extremely hazardous substances: Nitric acid, 70%
 SARA 313 toxic chemical notification and release reporting: Nitric acid, 70%
 CERCLA: Hazardous substances.: Nitric acid, 70%

California Proposition 65 Warnings

Other Regulation OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other classifications WHMIS (Canada) CLASS C: Oxidizing material. CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS E: Corrosive liquid.

DSCL (EEC) R35- Causes severe burns.

Section 16. Other Information

Catalog Number(s) RE/MA1

References Not available.

Other Special Considerations Not available.

Validated by R. Houghton 8/06/01

Verified by R. Turkington

Call 1-800-543-5487

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Haztech Systems, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.