

SECTION 1: Identification

Product Name	Nitric Acid, 70% w/w, Trace Metal Also Meets ACS Specifications		
Other Identifiers	Azotic acid; Hydrogen nitrate; Aqua fortis; 84410-47		
Recommended Uses	General Laboratory Reagent/Chemical.		
Uses Advised Against	Not intended for drug, food or household use.		
Address	SPEX CertiPrep, LLC 203 Norcross Ave. Metuchen, NJ 08840 USA		24-Hour Emergency Telephone
Telephone	1.732.549.7144		CHEMTREC (USA) 800-424-9300 CHEMTREC (International) 1 + 730-527-3887
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SECTION 2: Hazard(s) Identification

Skin corrosion/irritation (Category 1)
 Serious eye damage/eye irritation (Category 1)
 Oxidizing liquids (Category 2)
 Corrosive to metals (Category 1)

Hazards not otherwise classified or covered by GHS

None identified.

Signal Word

DANGER

Hazard Statements

Causes severe skin burns and serious eye damage. May cause fire or explosion; strong oxidizer. May be corrosive to metals.

Precautionary Statements

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. - No smoking. Keep away from clothing and other combustible materials. Keep only in original packaging. Do not breathe mist, vapors or spray. Wash areas of contact/exposure thoroughly after handling. Wear protective gloves and clothing and eye protection. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. Get medical help. In all cases of contact: Get emergency medical help immediately. In case of fire: Use dry chemical, foam or carbon dioxide (CO2) for extinction. Absorb spillage to prevent material damage. Store locked up. Store in corrosive resistant container with a resistant inner liner. Dispose of contents/container in accordance with local, state, federal and international regulations.



SECTION 3: Composition / Information on Ingredients

Component Name	Component Number CAS	Component Number EC	Component Weight %
Nitric Acid	7697-37-2	231-714-2	70
Water	7732-18-5	231-791-2	30

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SECTION 4: First-Aid Measures

General Advice	Show this SDS to attending physician if medical treatment is needed.
Skin Contact	Immediately wash affected area with soap and water while removing contaminated clothing . Seek medical attention if there is any evidence of skin damage or persistent irritation.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. Seek immediate medical attention.
Inhalation	Remove person to fresh air and keep comfortable for breathing. If breathing is difficult or labored , seek medical attention.
Ingestion	Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or physician.
Symptoms/effects	The most important known symptoms/effects are described in Section 2 of this Safety Data Sheet.
Treatment	Treat symptomatically.

SECTION 5: Fire-Fighting Measures

Extinguishing Media	Use water in large amounts or carbon dioxide. Do not use powder or foam.
Specific Hazards	Thermal decomposition may produce toxic or irritating fumes.
Actions for Firefighters	Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

SECTION 6: Accidental Release Measures

Precautions and Procedures	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate unprotected personnel to safe areas. Keep people away from and upwind of spill/leak.
Environmental Precautions	As with any chemical, avoid release to the environment for the responsible stewardship of our planet.
Containment and Clean Up	Contain and absorb with inert absorbent material. Wear respiratory protection, gloves, eye protection and protective clothing. Sweep up or vacuum up spillage and collect in suitable lidded container for disposal.

Section 7: Handling and Storage

Handling	Follow good hygiene procedures when handling chemical materials. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use personal items when handling this substance. Wear gloves, protective clothing and eye protection when handling this substance.
Storage	Keep containers tightly closed in a cool, dry and well-ventilated place. Protect from freezing and physical damage. Store separately from incompatible materials. Store locked up.

Section 8: Exposure Controls / Personal Protection

Engineering Controls	As part of safe chemical handling, emergency eye wash fountains and safety showers should be available in handling areas. Provide sufficient ventilation measures to keep the airborne concentration below the applicable workplace exposure limits.
Exposure Limits	Nitric acid PEL-TWA 5 mg/m ³ US-OSHA
Exposure Limits	Nitric acid REL-TWA 2 ppm US-NIOSH
Exposure Limits	Nitric acid TLV-TWA 2 ppm US-ACGIH
Exposure Limits	Nitric acid REL-STEEL 4 ppm US-NIOSH
Exposure Limits	Nitric acid TLV-STEEL 4 ppm US-ACGIH
Eye Protection	Wear safety glasses with side shields or safety goggles. Wear face shield if there is risk of splashes.
Skin Protection	Wear chemical resistant gloves and protective clothing.
Respiratory Protection	Where exposure limits are exceeded and cannot be adequately controlled by other engineering means (such as a chemical fume hood), wear respiratory protection.

Section 9: Physical and Chemical Properties

Physical State	Liquid
Appearance/Color	Colorless to light yellow
Odor	Acrid
Odor Threshold	As low as 29 ppm
Melting/Freezing Point	-41.6°C
Boiling Point/Range	83°C
Flammability	Not flammable
Flammable/Explosive Limits	Not applicable
Flash Point	Not applicable
Auto-Ignition Temperature	Not applicable
Decomposition Temperature	Data not available
pH	0
Viscosity	0.746 mPa s at 25°C

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Solubility (in water)	Miscible
Partition Coefficient (n-octanol/water)	-0.21
Relative Density	1.5027
Vapor Pressure	6.4 kPa at 20°C
Vapor Density	2.2
Evaporation Rate	Data not available
Particle Characteristics	Not applicable.

Section 10: Stability and Reactivity

Reactivity	Contact with metals can release hydrogen gas (flammable).
Chemical Stability	Stable under normal conditions of handling and storage.
Hazardous Reactions	Generates heat and potentially hazardous fumes when mixed with water.
Conditions to Avoid	Avoid contact with incompatible materials.
Incompatible Materials	Oxidizable materials, metallic powders, carbides, cyanides, sulfides, alkalies, turpentine, acetylides of cesium and rubidium.
Hazardous Decomposition	Thermal decomposition can produce nitrogen oxides.

Section 11: Toxicological Information

Acute Toxicity - Oral	The toxicological data is limited or unavailable.
Acute Toxicity - Dermal	The toxicological data is limited or unavailable.
Acute Toxicity - Inhalation	LC50 (rat) 130 mg/m ³ /4H
Skin Corrosion/Irritation	Causes severe skin burns.
Eye Damage/Irritation	This material can cause serious eye damage.
Respiratory Sensitization	Not expected to cause respiratory sensitization.
Skin Sensitization	Not expected to cause skin sensitization.
Germ Cell Mutagenicity	Based on available data, this substance does not meet the criteria set forth for classification as causing germ cell mutagenicity.
Carcinogenicity	This material has not been identified as a carcinogen by IARC or NTP.
Reproductive Toxicity	Based on available data, this substance does not meet the criteria set forth for classification as a reproductive toxin.
STOT Single Exposure	None known.
STOT Repeated Exposure	None known.
Aspiration Hazard	This substance is not considered to be an aspiration hazard.
Other Information	No additional information available.

Section 12: Ecological Information

Toxicity Values	Does not meet the criteria of ecotoxin.
Persistence/Biodegradability	The methods for determining biological degradability do not apply to inorganic substances.
Bioaccumulation Potential	Data is not available for this substance that does not meet the criteria of ecotoxin.
Mobility in Soil	Data is not available for this substance that does not meet the criteria of ecotoxin.
Other Adverse Effects	None known.

Section 13: Disposal Considerations

Discharge, treatment, or disposal may be subject to national, state, regional or local laws. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Since emptied containers retain product residue, follow label warnings even after container is emptied. Dispose in accordance with national, state, regional and local regulations.

Section 14: Transport Information

UN Number	UN2031
Proper Shipping Name, Hazard Class	NITRIC ACID, 8 (5.1)
Packing Group	II
Marine Pollutant	Not classified as a marine pollutant.

Section 15: Regulatory Information

USA TSCA	On or in compliance with the inventory.
USA SARA 302/304	Nitric acid (EHS), TPQ 454 kg (1000 lbs) RQ 454 kg (1000 lbs)
USA SARA 311/312	Nitric acid
USA SARA 313 (TRI)	Nitric acid (EHS)
Canada DSL/NDSL	On or in compliance with DSL.
California Proposition 65	This product contains no substances on the list.

Section 16: Other Information

Acronyms	ACGIH	American Conference of Governmental Industrial Hygienists (USA)
	ATE	Acute Toxicity Estimate (calculated toxicity value)
	BCF	Bioconcentration Factor
	CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (USA)
	DOT	Department of Transportation (USA)
	DSL	Domestic Substances List (Canada)
	EHS	Extremely Hazardous Substance
	EPA	Environmental Protection Agency (United States)
	GHS	Globally Harmonized System
	IARC	International Agency for Research on Cancer
	IDLH	Immediately Dangerous to Life and Health
	NTP	National Toxicology Program (USA)
	OSHA	Occupational Safety and Health Administration (USA)
	PEL	Permissible Exposure Limit
	PNOR	Particulates Not Otherwise Classified
	PPE	Personal Protective Equipment
	ppb	Parts per billion
	ppm	Parts per million
	RQ	Reportable Quantity
	SARA	Superfund Amendments and Reauthorization Act (USA)
	TLV	Threshold Limit Value
	TPQ	Threshold Planning Quantity
	TRI	Toxic Release Inventory (USA)
	TSCA	Toxic Substances Control Act (USA)
	TWA	Time Weighted Average
	UN	United Nations

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This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: product safety department

Contact: SPEX CertiPrep, LLC. 1-732-549-7144