

## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name	Nitric Acid 1M Solution, Lab Grade
CAS number	7697-37-2
Synonyms	Hydrogen nitrate, Aqua fortis, Azotic acid, Salpetersaeure, Nitrooxidanyl

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory chemicals.
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#### 1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

#### 1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Oxidizing liquids	Category 3
Serious eye damage	Category 1
Skin corrosion	Category 1B

#### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statements

May intensify fire; oxidizer. Causes severe skin burns and eye damage.

Precautionary statements

If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use.  
Keep away from heat/sparks/open flames/hot surfaces.  
No smoking.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Do not eat, drink, or smoke when using this product.  
Take any precaution to avoid mixing with combustibles.  
Keep and store away from clothing/combustible materials.  
Wash skin thoroughly after handling.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN/HAIR: Remove/Take off all contaminated clothing immediately. Rinse skin with water/shower. Wash contaminated clothing before reuse.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

In case of fire: Use reagents recommended in Section 5 for extinction.  
Store locked up.  
Dispose of contents/container according to local regulations.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified.

## SECTION 3: Composition/information on ingredients

### 3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Nitric Acid	Hydrogen nitrate, Aqua fortis, Azotic acid	7697-37-2	9.217 %
Deionized Water	Aqua, Deionized Water, Dihydrogen Oxide	7732-18-5	90.78%

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## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

<b>If inhaled</b>	Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical advice if discomfort or irritation persists.
<b>In case of skin contact</b>	Wash affected area with soap and water. Rinse or flush skin/hair gently with water for at least 30 minutes. Seek immediate medical attention.
<b>In case of eye contact</b>	Protect unexposed eye. Remove contact lens(es) if able to do so during rinsing. Rinse or flush eye gently with water for at least 30 minutes, lifting upper and lower lids. Seek immediate medical attention (ophthalmologist).
<b>If swallowed</b>	Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Seek medical attention if irritation, discomfort, or vomiting persists.

### 4.2 Most important symptoms and effects, both acute and delayed

Headache; shortness of breath; irritation/burns, all routes of exposure. May cause severe burns, blindness, and/or permanent damage. May cause burns, deep penetrating ulcerations of the skin, delayed tissue destruction, redness, and pain. May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

### 4.3 Indication of any immediate medical attention and special treatment needed

If seeking medical attention, provide SDS document to physician.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	Does not burn. Use extinguishing media appropriate for surrounding fire. If in laboratory setting, follow laboratory fire suppression procedures. Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition.
<b>Unsuitable extinguishing media</b>	No information available.

### 5.2 Specific hazards arising from the substance or mixture

Combustion products may include Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), or other toxic vapors.

### 5.3 Special protective equipment and precautions for firefighters

Move product containers away from fire or keep cool with water spray as a protective measure, where feasible.

### 5.4 Further information

**Flash Point** No information available.

**Autoignition Temperature** No information available.

#### Explosion limits

**Upper** No data available.

**Lower** No data available.

**Sensitivity to Mechanical Impact** No information available.

**Sensitivity to Static Discharge** No information available.

#### NFPA

Health	Flammability	Instability	Physical hazards
3	0	0	OX

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources. Protect from heat. Stop the spill, if possible. Contain spilled material by diking or using inert absorbent. Transfer to disposal or recovery container.

### 6.2 Environmental precautions

Prevent from reaching drains, sewer, or waterway.

### 6.3 Methods and materials for containment and cleaning up

If in a laboratory setting, follow Chemical Hygiene Plan procedures. Collect liquids using vacuum or by use of absorbents. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor.

### 6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Precautions on safe handling

Prevent formation of aerosols. Follow good hygiene procedures when handling chemical materials. Do not eat, drink, smoke, or use personal products when handling chemical substances. If in a laboratory setting, follow Chemical Hygiene Plan. Use only in well-ventilated areas. Avoid splashes or spray in enclosed areas. Keep away from heat and sources of ignition.

### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

## 7.2 Conditions for safe storage, including any incompatibilities

### Storage conditions

Store in a cool location. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources, or open flame. Store away from foodstuffs and oxidizing agents. Store in cool, dry conditions in well-sealed containers. Keep container tightly sealed. Store with similar hazards.

### Incompatibilities

Highly reactive with alkalis, reducing agents, combustible materials, organic materials, metals, acids, and aldehydes.

## SECTION 8: Exposure controls/personal protection

### 8.1 Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Nitric acid	TWA	2 ppm

#### US. ACGIH Threshold Limit Values

Component	Type	Value
Nitric acid	TWA	2 ppm

#### US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Nitric acid	TWA	2 ppm

### Biological occupational exposure limits

No information available.

### 8.2 Exposure controls

#### Appropriate engineering controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits indicated above.

## Personal protective equipment

### Eye/face protection

Safety glasses with side shields or goggles.

### Skin protection

The glove material has to be impermeable and resistant to the product being handled. Selection of glove material on consideration of penetration times, rates of diffusion, and degradation.

### Body Protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

### Respiratory protection

Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed. For spills, respiratory protection may be advisable.

### Control of environmental exposure

No information available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Colorless to a pale yellow
Odor	Strong acrid
Odor Threshold	No information available
pH	< 1.0
Melting Point/Range	No information available
Boiling Point/Range	No information available
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	No information available
Upper	
Lower	
Vapor Pressure	No information available
Vapor Density	No information available
Density	No information available
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	No information available

Molecular Formula	HNO3
Molecular Weight	63.013 g/mol
VOC Content(%)	No information available
Oxidizing properties	No information available

## 9.2 Other safety information

No information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Oxidizer. Reacts violently with alcohol, organic material, turpene, charcoal. Violent reaction with Nitric acid, Acetone, and Sulfuric acid. Nitric acid will react with water or steam to produce heat and toxic, corrosive, flammable vapors.

### 10.2 Chemical stability

No decomposition if used and stored according to specifications.

### 10.3 Possibility of hazardous reactions

Oxidizer: contact with combustible/organic material may cause fire.

### 10.4 Conditions to avoid

Excess heat, combustible materials, and incompatible materials.

### 10.5 Incompatible materials

Highly reactive with alkalis, reducing agents, combustible materials, organic materials, metals, acids, and aldehydes.

### 10.6 Hazardous decomposition products

Nitrogen oxides (NOx).

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product Information, Component Information

#### Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Nitric acid	430 mg/kg (Rat)	-	67 ppm 4 h (Rat)

#### Skin corrosion/irritation

Causes severe skin burns.

#### Serious eye damage/eye irritation

Corrosive to eyes; causes serious eye damage.

**Respiratory or skin sensitization**

No additional information.

**Germ cell mutagenicity**

No additional information.

**Carcinogenicity**

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Nitric acid	7697-37-2	Not listed	Not listed	Not listed	Not listed	Not listed

**Specific target organ toxicity - single exposure**

No additional information.

**Specific target organ toxicity - repeated exposure**

No additional information.

**Reproductive toxicity**

Experiments have shown reproductive toxicity effects on laboratory animals.

**Chronic effects**

No additional information.

**11.2 Additional Information**

No information available.

**SECTION 12: Ecological information****12.1 Toxicity**

No information available.

**12.2 Persistence and degradability**

Readily degradable in the environment.

**12.3 Bio accumulative potential**

No information available.

**12.4 Mobility in soil**

Aqueous solution has high mobility in soil.

**12.5 Results of PBT and vPvB assessment**

No information available.

**12.6 Endocrine disrupting properties**

No information available.

**12.7 Other adverse effects**



No information available.

## SECTION 13: Disposal considerations

### 13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## SECTION 14: Transport information

### DOT (US)

UN-No	UN2031
Proper Shipping Name	Nitric acid
Hazard Class	8
Packing Group	II

### IMDG

UN-No	UN2031
Proper Shipping Name	Nitric acid
Hazard Class	8
Packing Group	II

### IATA

UN-No	UN2031
Proper Shipping Name	Nitric acid
Hazard Class	8
Packing Group	II

## SECTION 15: Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not applicable.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

7697-32-2 Nitric acid 1000 lbs.

**SARA 304 Emergency release notification**

7697-32-2 Nitric acid 1000 lb.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**

7697-32-2 Nitric acid 1000 lb.

**SARA 311/312 Hazardous**

Acute Health Hazard.

**SARA 313 (TRI reporting)**

Listed, 7697-32-2 Nitric Acid.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act**

Not regulated.

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

Not listed.

**US state regulations**

**US. Massachusetts RTK - Substance List**

Listed.

**US. New Jersey Worker and Community Right-to-Know Act**

Listed.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Listed.

**California Proposition 65**

Not listed.

**SECTION 16: Other information**

Issue date: 09/06/2024

**SECTION 17: Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.