



SAFETY DATA SHEET

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

1.1 Product identifiers

Product name Nitric Acid 15% & Hydrofluoric Acid 1.5% Mixture

CAS number See Section 3.

Synonyms N/A

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

Identified uses Laboratory Chemicals

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)

Acute Toxicity - Oral (Category 3)

Acute Toxicity - Dermal (Category 4)

Skin Corrosion/Irritation (Category 1)

Eye Damage /irritation (Category 1)

Respiratory Sensitizer (Category 1)
 Skin Sensitizer (Category 1)
 Specific Target Organs - single exposure (Category1)
 Specific Target Organs - repeated exposure (Category1)
 Aspiration Hazard (Category 1)
 Corrosive to Metals (Category 1)

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statements

May be corrosive to metals.
 Toxic if swallowed.
 May be fatal if swallowed and enters airways.
 Harmful in contact with skin.
 Causes severe skin burns and eye damage.
 May cause an allergic skin reaction.
 Causes serious eye damage.
 Fatal if inhaled.
 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 Causes damage to organs.
 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Keep only in original container.
 P260 Do not breathe fumes, mist, vapors, or spray.
 P261 Avoid breathing fumes, mist, vapors, or spray.
 P264 Wash arms, hands and face thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P271 Use only outdoors or in a well-ventilated area.
 P272 Contaminated work clothing must not be allowed out of the workplace.
 P280 Wear protective gloves and eye protection.
 P285 In case of inadequate ventilation wear respiratory protection.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or physician.
 P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P304+P341 IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P307+P311 IF exposed: Call a POISON CENTER or physician.
P310 Immediately call a POISON CENTER or physician.
P312 Call a POISON CENTER or physician if you feel unwell.
P314 Get medical attention if you feel unwell.
P320 Specific treatment is urgent (Wash areas of contact with water immediately).
P321 Specific treatment (Wash areas of contact with water immediately).
P330 Rinse mouth.
P331 Do NOT induce vomiting.
P332+P313 If skin irritation occurs: Get medical attention.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or physician.
P362 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P406 Store in corrosive resistant container with a resistant inner liner.
P501 Dispose of contents in accordance with local, state, federal and international regulations.

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

Data not available.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
water	H ₂ O	7732-18-5	88.45
nitric acid	HNO ₃	7697-37-2	10.50
hydrochloric acid	HF	7664-39-3	1.05

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled

IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

In case of skin contact

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. May produce pain, redness, severe irritation or full thickness burns. May be absorbed through the skin with possible systemic effects.

In case of eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Corrosive! Causes irritation and burns. Can cause burns that may lead to permanent impairment of vision, including blindness.
If swallowed	IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Do not induce vomiting. Give large quantity of water. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Toxic if swallowed. May be fatal if swallowed and enters airways. Harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Fatal if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes damage to organs. Causes damage to organs through prolonged or repeated exposure. DANGER! CORROSIVE! Extremely hazardous liquid and vapor. Causes severe burns which may not be immediately painful or visible. May be fatal if swallowed or inhaled. Can burn eyes, skin and respiratory tract. May cause bone damage. If swallowed, do not induce vomiting. Dilute with water and call a physician. Do not get in eyes, on skin or clothing. Use only with adequate ventilation. Wash thoroughly after handling. EYE CONTACT: Corrosive! Causes irritation and burns. Can cause burns that may lead to permanent impairment of vision, including blindness. SKIN CONTACT: May produce pain, redness, severe irritation or full thickness burns. May be absorbed through the skin with possible systemic effects. CHRONIC EFFECTS / CARCINOGENICITY: Chronic exposures may cause mottling of teeth and bone damage and fluorosis. Symptoms of fluorosis include brittle bones, weight loss, anemia, calcified ligaments, general ill health and joint stiffness.

4.3 Indication of any immediate medical attention and special treatment needed

Immediately call a POISON CENTER or physician. Specific treatment is urgent (Wash areas of contact with water immediately). Specific treatment (Wash areas of contact with water immediately). Irrigate immediately with large quantity of water for at least 15 minutes. Get medical attention immediately. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Wash areas of contact immediately with water for at least 15 minutes. Soak the affected area with 70% Denatured Ethyl Alcohol solution or Epsom salts for 1 to 4 hours. Call a physician immediately. Do not induce vomiting. Give large quantity of water. Call a physician immediately.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Does not burn. Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	No information available.

5.2 Specific hazards arising from the substance or mixture

Strong oxidizer. Contact of concentrated nitric acid with combustible materials may increase the hazard from fire and may lead to an explosion. Decomposes at fire temperature with release of oxides of nitrogen. Releases hydrogen gas on contact with many metals.

5.3 Special protective equipment and precautions for firefighters

Wear special protective clothing and positive pressure self-contained breathing apparatus. Butyl rubber, natural rubber, Neoprene, nitrile rubber, or polyvinyl alcohol barrier recommended.

5.4 Further information

Flash Point No information available.

Autoignition Temperature No information available.

Explosion limits

Upper No information available.

Lower No information available.

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

NFPA

Health	Flammability	Instability	Physical hazards
3	0	0	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection.

6.2 Environmental precautions

Control runoff and isolate discharged material for proper disposal.

6.3 Methods and materials for containment and cleaning up

Releases may require isolation or evacuation. Approach release from upwind. Stop or control the leak, if this can be done without undue risk. Use water spray to cool and disperse vapors and protect personnel. Avoid solid stream on pooled liquids. Prompt cleanup and removal are necessary. Control runoff and isolate discharged material for proper disposal.

6.4 Reference to other sections

No information available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Store in corrosive resistant container with a resistant inner liner.

Hygiene measures

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Protect from freezing and physical damage.

Incompatibilities

Do not mix with bases

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
Hydrofluoric acid	TWA	3 ppm, 2.5 mg/m ³
Nitric acid	TWA	2ppm, 5 mg/m ³

US. ACGIH Threshold Limit Values

Component	Type	Value
Nitric Acid	TLV-TWA	2ppm
	TLV-STEL	4 ppm
Hydrofluoric acid	TLV-TWA	0.5 ppm, 2.5 mg/m ³
	TLV-Ceiling	2 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

No information available.

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Use only outdoors or in a well-ventilated area. A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

Personal protective equipment

Eye/face protection

Wear protective gloves and eye protection. Safety glasses or goggles.

Skin protection

Wear protective gloves and eye protection. Chemical resistant gloves, Neoprene or PVC.

Body Protection

Wear protective gloves and eye protection. Chemical resistant gloves, Neoprene or PVC.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn.

Control of environmental exposure

No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Colorless
Appearance	Liquid
Odor	No data available.
Odor Threshold	No data available.
pH	<1
Melting Point/Range	~0°C
Boiling Point/Range	~100°C
Evaporation Rate	No data available.
Flammability (solid)	No data available.
Flammability or explosive limit	No data available.
Upper	No data available.
Lower	No data available.
Vapor Pressure	No data available.
Vapor Density	No data available.
Density	1.13
Solubility	Miscible
Partition coefficient; n-octanol/water	No data available.
Autoignition Temp	No data available.
Decomposition Temp	No data available.
Viscosity	No data available.
Molecular Formula	No data available.
Molecular Weight	No data available.
VOC Content(%)	No data available.
Oxidizing properties	No data available.

9.2 Other safety information No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under normal conditions of use and storage.

10.2 Chemical stability

Stable under normal conditions of use and storage.

10.3 Possibility of hazardous reactions

No information available.

10.4 Conditions to avoid

Keep only in original container.

10.5 Incompatible materials

Strong bases, metallic powders, Carbides, Hydrogen Sulfide, Turpentine and combustible organics.

10.6 Hazardous decomposition products

Will not occur.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Toxic if swallowed. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED:

Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately). Rinse mouth. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Fatal in contact with skin. Do not get in eyes, on skin, or on clothing. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves and eye protection. Wash with plenty of soap and water. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately). Take off immediately all contaminated clothing and wash it before reuse. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Harmful if inhaled. Avoid breathing dust, fumes or mist. Use only outdoors or in a well-ventilated area. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

LDLo, Oral, Human: 430 mg/kg (Nitric Acid), details of toxic effects not reported other than lethal dose value. LC50, Inhalation, Rat: 1276 ppm/1 H (Hydrofluoric Acid).

Skin corrosion/irritation

Causes severe skin burns and eye damage. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Serious eye damage/eye irritation

Causes serious eye damage. Wear protective gloves and eye protection. 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 physician.

Respiratory or skin sensitization

May cause an allergic skin reaction. Avoid breathing dust, fumes or mist. Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical attention.

Specific treatment (Wash areas of contact with water immediately). Wash contaminated clothing before reuse. Dispose of contents in accordance with local, state, federal and international regulations.

Germ cell mutagenicity

Suspected of causing genetic defects. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Carcinogenicity

Not applicable.

Specific target organ toxicity - single exposure

Causes damage to organs. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed: Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately).

Store locked up. Dispose of contents in accordance with local, state, federal and international regulations

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

Reproductive toxicity

May damage fertility or the unborn child. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations

Chronic effects

No information available.

11.2 Additional Information

Data not available.

SECTION 12: Ecological information

12.1 Toxicity

Not applicable.

12.2 Persistence and degradability

Data not available.

12.3 Bio accumulative potential

Data not available.

12.4 Mobility in soil

Data not available.

12.5 Results of PBT and vPvB assessment

Data not available.

12.6 Endocrine disrupting properties

Data not available.

12.7 Other adverse effects

Data not available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Data not available.

SECTION 14: Transport information

DOT (US)

UN Number UN3264

Proper Shipping name Corrosive Liquid, Acidic, Inorganic, n.o.s. (Nitric Acid, Hydrofluoric Acid)

Hazard Class 8
Packaging Group II

IMDG

UN Number UN3264
Proper Shipping name Corrosive Liquid, Acidic, Inorganic, n.o.s. (Nitric Acid, Hydrofluoric Acid)
Hazard Class 8
Packaging Group II

IATA

UN Number UN3264
Proper Shipping name Corrosive Liquid, Acidic, Inorganic, n.o.s. (Nitric Acid, Hydrofluoric Acid)
Hazard Class 8
Packaging Group II

SECTION 15: Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Listed, Nitric acid (CAS #7697-37-2), RQ: 1000 lb.
Hydrofluoric Acid (CAS # 7664-39-3): 100 lb RQ

SARA 304 Emergency release notification
Listed, Nitric acid (CAS #7697-37-2), RQ: 1000 lb.
Hydrofluoric Acid (CAS # 7664-39-3): 100 lb RQ

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Listed, Nitric acid (CAS #7697-37-2), RQ: 1000 lb.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance
Hydrofluoric Acid (CAS # 7664-39-3): 100 lb EPCRA RQ
Hydrofluoric Acid (CAS # 7664-39-3): 100 lb TPQ
Nitric Acid (CAS # 7697-37-2): 1000 lb EPCRA RQ
Nitric Acid (CAS # 7697-37-2): 1000 lb TPQ

SARA 311/312 Hazardous
Hydrofluoric Acid (CAS # 7664-39-3): 100 lb final RQ; 45.4 kg final RQ
Nitric Acid (CAS # 7697-37-2): 1000 lb final RQ; 454 kg final RQ

SARA 313 (TRI reporting)

Hydrofluoric Acid (CAS # 7664-39-3): 1.0 % de minimis concentration

Nitric Acid (CAS # 7697-37-2): 1.0 % de minimis concentration

Other federal regulations

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

Not applicable.

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

Not applicable.

Safe Drinking Water Act

Not applicable.

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

Not listed.

US state regulations

US. Massachusetts RTK - Substance List

Hydrofluoric Acid (CAS # 7664-39-3): Extraordinarily hazardous

Nitric Acid (CAS # 7697-37-2): Extraordinarily hazardous

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

Hydrofluoric Acid (CAS # 7664-39-3): corrosive

Hydrofluoric Acid (CAS # 7664-39-3): sn 0936

Hydrofluoric Acid (CAS # 7664-39-3): sn 3759

Hydrofluoric Acid (CAS # 7664-39-3): SN 3759 100 lb TPQ; SN 1014 500 lb TPQ
(Hydrogen fluoride gas only)

Nitric Acid (CAS # 7697-37-2): corrosive; reactive - second degree

Nitric Acid (CAS # 7697-37-2): sn 1356

Nitric Acid (CAS # 7697-37-2): SN 1356 500 lb TPQ

Nitric Acid (CAS # 7697-37-2): sn 3722

Nitric Acid (CAS # 7697-37-2): SN 3722 500 lb TPQ (water dissociable, Category Code N511)

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

Hydrofluoric Acid (CAS # 7664-39-3): Environmental hazard

Hydrofluoric Acid (CAS # 7664-39-3): Present

Nitric Acid (CAS # 7697-37-2): Environmental hazard

Nitric Acid (CAS # 7697-37-2): Present

Water (CAS # 7732-18-5): Present

California Proposition 65

Not listed.

SECTION 16: Other information

Date of Issue: 04//04/2023

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.