



Material Safety Data Sheet

Nitric acid, 70%

Section 1 - Chemical Product and Company Identification

MSDS Name:

Nitric acid, 70%

Catalog Numbers:

LC17700

Synonyms:**Company Identification:**

LabChem, Inc.
200 William Pitt Way
Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
7697-37-2	Nitric acid	70

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: Colorless

Caution! Corrosive. May cause severe eye and skin irritation with possible burns.

Target Organs: Noneknown.

Potential Health Effects

Eye:

Causes pain, photophobia, tearing, edema, corneal ulceration, severe burns, necrosis of deep tissue with permanent damage and blindness.

Skin:

Skin may turn brown-yellow. Deep burns are slow to heal and scarring may occur.



Material Safety Data Sheet

Nitric acid, 70%

Ingestion:

Causes pain in mouth, throat, stomach followed by vomiting, bloody diarrhea, hypotension, oliguria, anuria, possible fatal circulatory collapse, asphyxia from glottal edema. Perforation burns of gastrointestinal tract possible with fever and peritonitis.

Inhalation:

May cause coughing, dizziness, weakness, dry throat/chest, chest pain, dyspnea, frothy sputum, hypotension, cyanosis, pneumonitis, fatal pulmonary edema.

Chronic:

Dermatitis, conjunctivitis, dental erosion, jaw necrosis, chronic cough, bronchitis, chemical pneumonitis, gastrointestinal disturbances.

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once. Cover burns with loose sterile non-medicated bandages.

Skin:

Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes. Cover burns with a dry sterile bandage (secure, not tight).

Ingestion:

Get medical aid at once. Give 1 ounce of milk of magnesia. Give conscious victim large quantities of water to dilute acid. Give oxygen if respiration is depressed.

Inhalation:

Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air. Maintain airway and blood pressure.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

Move container if possible, cool with flooding amounts of water. Avoid breathing corrosive vapors. Negligible fire and explosion hazard for solutions <5%. At higher concentration, increased flammability of combustibles, readily oxidizable materials. Severe explosion hazard by reaction with incombustibles (metallic powders, carbides, hydrogen sulfide, turpentine). In or near fire material emits toxic and reactive nitrogen oxides of gases.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:

No information found.

Flash Point:

No information found.

NFPA Rating:

CAS# 7732-18-5: Not published.

CAS# 7697-37-2: Not published.



Material Safety Data Sheet

Nitric acid, 70%

Explosion Limits:

Lower: Upper:

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with an alkaline material such as soda ash or lime. Keep out of sewers/drains. Ventilate and wear protective clothing. Scoop material into suitable (plastic or glass) container, label for disposal as "corrosive".

Section 7 - Handling and Storage

Handling:

Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing. Handle as corrosive liquid, dispense with care; wear protective clothing, gloves, goggles.

Storage:

Store at room temperature. Store in glass or approved plastic container only, keep capped. Protect from heat and incompatibles.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Local exhaust ventilation may be necessary to control any air contaminant to within their TLV during the use of this product.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Nitric acid	2 ppm TWA; 4 ppm STEL	2 ppm TWA; 5 mg/m ³ TWA	2 ppm TWA; 5 mg/m ³ TWA;

OSHA Vacated PELs

Nitric acid: 2 ppm TWA; 5 mg/m³ TWA

Personal Protective Equipment

Eyes:

Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear gloves, splash proof goggles and face shield.

Skin:

Wear impervious gloves (viton, saranex).

Clothing:

Wear appropriate protective clothing to prevent skin exposure.



Material Safety Data Sheet

Nitric acid, 70%

Respirators:

PELto50ppm-SAF/SCBAF/SAF:PD,PP,CF.

>50ppm - SCBAF:PD,PP.

Firefighting - SCBAF:PD,PP. NOTE: DO NOT USE OXIDIZABLE SORBENTS IN RESPIRATORS.

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid

Color: Colorless

Odor: Acridodor

pH: Acidic

Vapor Pressure: 62 mm Hg @25c

Vapor Density: 2.2

Evaporation Rate: >1 (ether=1)

Viscosity: No information found.

Boiling Point: 181°F (82.78°C)

Freezing/Melting Point: -44°F (-42.22°C)

Decomposition Temperature: No information found.

Solubility in water: Miscible.

Specific Gravity/Density: 1.5

Molecular Formula: No information found.

Molecular Weight: No information found.

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures up to boiling point. Nitric oxides quietly evolved - sunlight catalyses oxide formation (yellow color, aging).

Conditions to Avoid:

Incompatible materials, easily oxidized materials.

Incompatibilities with Other Materials

Metals, acetic acid, acetic anhydride, acrylonitrile, alcohols, anhydrides, fluorine, organic acids, perchlorates, aldehydes (e.g. acetaldehyde, acrolein, chloral hydrate, formaldehyde), ketones (e.g. acetone, acetophenone, MEK, MIBK), metals as powders (e.g. hafnium, raney nickel), organics, carbides, acetonitrile, acetone, arsine, phosphides, dioxides, thiocyanates, inorganic acids, chlorine, cyclic compounds, halides.

Hazardous Decomposition Products

Nitrogen oxides, nitric acid vapors, catalyzed by sunlight.

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.

CAS# 7697-37-2: QU5775000; QU5900000.



Material Safety Data Sheet

Nitric acid, 70%

LD50/LC50:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 7697-37-2:

Inhalation, rat: LC50 =67 ppm(NO2)/4H.

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 7697-37-2: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

Severe eye, mucous membrane, and skin irritant.

Teratogenicity:**Reproductive:****Mutagenicity:****Neurotoxicity:**

Section 12 - Ecological Information

No information found.

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Nitric acid

Hazard Class: 8

UN Number: UN2031

Packing Group: PG II

Section 15 - Regulatory Information

US Federal

TSCA

CAS#7732-18-5 is listed on the TSCA Inventory.

CAS#7697-37-2 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ)

CAS#7697-37-2: final RQ = 1000 pounds (454 kg)

CERCLA/SARA Section 313

This material contains Nitric acid (CAS#7697-37-2, 70%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.



Material Safety Data Sheet

Nitric acid, 70%

OSHA - Highly Hazardous

CAS#7697-37-2 is considered highly hazardous by OSHA.

US State

State Right to Know

Nitric acid can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California Regulations

European/International Regulations

Canadian DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 7697-37-2 is listed on Canada's DSL List.

Canada Ingredient Disclosure List

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 7697-37-2 is listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: October 1, 1998

Revision Date: August 27, 2007

Information in this MSDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and LabChem Inc. assumes no liability resulting from the use of this MSDS. The user must determine suitability of this information for his application.