



**Material Safety Data Sheet**  
**Zinc AA standard, 1ml=1mg Zn (1000ppm)**

**Section 1 - Chemical Product and Company Identification**

**MSDS Name:**

Zinc AA standard, 1ml=1mg Zn (1000ppm)

**Catalog Numbers:**

LC27150

**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	6.5
1314-13-2	Zinc oxide	0.1

**Section 3 - Hazards Identification**

**EMERGENCY OVERVIEW**

*Appearance: colorless*

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

*Target Organs: none known.*

**Potential Health Effects**

**Eye:**

Eye contact may result in pain, photophobia, tearing, edema, corneal ulceration, burns, and deep tissue necrosis.

**Skin:**

Skin may turn brown-yellow. Deep burns are slow to heal and scarring may occur. Dermal burns may occur depending on duration of contact.



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**Ingestion:**

May cause severe irritation to gastrointestinal tract with burning of the mouth, vomiting, diarrhea.

**Inhalation:**

May cause coughing, headache, dizziness, weakness, dryness of respiratory tract, chest pain, frothy sputum, dyspnea, hypotension, cyanosis; pneumonitis and fatal pulmonary edema may follow; permanent scar tissue may form.

**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. Do not use gastric lavage or induce vomiting. If victim is conscious, give 2-4 glasses of water and induce vomiting. Medical personnel should maintain airway and respiration, treat for shock.

**Inhalation:**

Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

**Notes to Physician:**

Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:**

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Negligible fire and explosion hazard when exposed to heat or flame. Move container if possible, avoid breathing vapors or dust. In or near fire material emits toxic and reactive nitrogen oxides of gases. Avoid breathing toxic and corrosive vapors - keep upwind.

**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.

CAS# 1314-13-2: Not published.

**Explosion Limits:**

Lower:      Upper:



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**Section 6 - Accidental Release Measures**

**General Information:**

Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**

Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal. Scoop material into suitable (plastic or glass) container, label for disposal as "corrosive".

**Section 7 - Handling and Storage**

**Handling:**

Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas.

**Storage:**

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

**Section 8 - Exposure Controls, Personal Protection**

**Engineering Controls:**

Provide local exhaust or general dilution ventilation. Work under a hood - SAR/SCBA (high levels).

**Exposure Limits**

<b>Chemical Name:</b>	<b>ACGIH</b>	<b>NIOSH</b>	<b>OSHA</b>
<b>Water</b>	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
<b>Nitric acid</b>	2 ppm TWA;4 ppm STEL	2 ppm TWA; 5 mg/m3 TWA	2 ppm TWA; 5 mg/m3 TWA;
<b>Zinc oxide</b>	5 mg/m3 TWA (fume); 10 mg/m3 TWA (dust) (The value for Zinc oxide "dust" is fo;10 mg/m3 STEL (fume)	fume/dust: 5 mg/m3 TWA	5 mg/m3 TWA (fume); 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction);

**OSHA Vacated PELs**

Nitric acid: 2 ppm TWA; 5 mg/m3 TWA

Zinc oxide: fume: 5 mg/m3 TWA; total dust: 10 mg/m3 TWA; respirable fraction: 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 splash-proof safety goggles.

**Skin:**

Wear impervious gloves (viton, saranex).

**Clothing:**

Wear appropriate protective clothing to prevent skin exposure.



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#### Respirators:

PEL to 50ppm - SAF/SCBAF/SAF:PD,PP,CF.

>50ppm - SCBAF:PD,PP.

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

Firefighting-SCBAF:PD,PP. (Respirator Codes: DHEW (NIOSH) Publication No. 78-210)

## Section 9 - Physical and Chemical Properties

**Physical State:** Clear liquid

**Color:** colorless

**Odor:** odorless

**pH:** acidic

**Vapor Pressure:** 14mm Hg @20°C

**Vapor Density:** > air

**Evaporation Rate:** < ether

**Viscosity:** No information found.

**Boiling Point:** 212.°F ( 100.00°C)

**Freezing/Melting Point:** 32°F ( 0.00°C)

**Decomposition Temperature:** No information found.

**Solubility in water:** Miscible.

**Specific Gravity/Density:** 1.1

**Molecular Formula:** No information found.

**Molecular Weight:** No information found.

## Section 10 - Stability and Reactivity

#### Chemical Stability:

Stable under normal temperatures and pressures. Acid vapors and nitric oxides quietly evolved - sunlight catalyses oxide formation (yellow color, aging).

#### Conditions to Avoid:

Incompatible materials.

#### Incompatibilities with Other Materials

Reacts violently or explosively with oxidizers, water reactives, other materials.

#### Hazardous Decomposition Products

Nitric acid vapors and nitric oxides are quietly evolved - this reaction is 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.

CAS# 1314-13-2: ZH4810000.



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**LD50/LC50:**

CAS# 7732-18-5:

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

CAS# 7697-37-2:

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

CAS# 1314-13-2:

Inhalation, mouse: LC50 =2500 mg/m<sup>3</sup>

Oral, mouse: LD50 = 7950 mg/kg.

**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.

CAS# 1314-13-2: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

**Epidemiology:**

Nitric acid--severe eye, skin, mucous membrane 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:** Corrosive liquid, acidic, inorganic, n.o.s.  
(Nitric acid)

**Hazard Class:** 8

**UN Number:** UN3264

**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.

CAS# 1314-13-2 is listed on the TSCA Inventory.



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### SARA Reportable Quantities (RQ)

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

CAS# 7440-66-6 final RQ = 1000 pounds (454 kg) (no reporting of releases of this hazardous subs)

### CERCLA/SARA Section 313

This material contains Nitric acid (CAS# 7697-37-2, 6.5%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

### 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.

Zinc oxide 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.

CAS# 1314-13-2 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.

CAS# 1314-13-2 is listed on Canada's Ingredient Disclosure List.

## Section 16 - Other Information

MSDS Creation Date: July 19, 1998

Revision Date: September 24, 2004

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