

# FLINN SCIENTIFIC, INC.

## Material Safety Data Sheet (MSDS)

MSDS #: 553.00

Revision Date: September 27, 2010

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### Nitric Acid Solution (<0.5 M)

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

### SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS

Nitric Acid (7697-37-2) <6.3%, and Water (7732-18-5) 93-99%.

Synonym: 1 Molar or less

CAS#: None Established

### SECTION 3 — HAZARDS IDENTIFICATION

Colorless, odorless, liquid.

Irritating to body tissues. Avoid all body tissue contact.

#### FLINN AT-A-GLANCE

Health-0

Flammability-0

Reactivity-1

Exposure-1

Storage-1

0 is low hazard, 3 is high hazard

### SECTION 4 — FIRST AID MEASURES

Call a physician, seek medical attention for further treatment, observation and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.

Eye: Immediately flush with fresh water for at least 15 minutes.

External: Wash continuously with fresh water and mild soap for at least 15 minutes.

Internal: Rinse out mouth and give large quantities of water. May also give gastric antacids such as Milk of Magnesia. Do not induce vomiting. Call a physician or poison control at once.

### SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable, noncombustible liquid.

When heated to decomposition, emits highly toxic fumes of NO<sub>x</sub> and hydrogen nitrate.

**Fire Fighting Instructions:** Use triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

#### NFPA CODE

None

established

### SECTION 6 — ACCIDENTAL RELEASE MEASURES

Restrict unprotected personnel from area. Ventilate area and contain spill with sand or other inorganic absorbent material, neutralize with sodium bicarbonate or calcium hydroxide and deposit in sealed bag or container. See Sections 8 and 13 for further information.

### SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #3. Store with amides, nitrates and nitrites.

Store in a dedicated acid cabinet and away from any source of water; if an acid cabinet is not available, store in Flinn Saf-Cube.

Never store with acetic acid.

### SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Avoid contact with eyes, skin, & clothing. Wear chemical splash goggles, chemical-resistant gloves, & chemical-resistant apron.

Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire).

Exposure guidelines: TWA 2 ppm, STEL 4 ppm (OSHA, NIOSH)

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**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

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Clear, colorless, odorless liquid. pH 1.0 (0.1 M solution)  
Solubility: Soluble in water.  
Formula: HNO<sub>3</sub>  
Formula Weight: 63.01

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**SECTION 10 — STABILITY AND REACTIVITY**

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Avoid contact with bases, alcohols, alkaline earth metals, galvanized iron, aluminum, organic materials, amines, and acetic acid.  
Corrodes steel and other metals.  
Shelf life: Good.

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**SECTION 11 — TOXICOLOGICAL INFORMATION**

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Acute effects: Skin and eye irritant  
Chronic effects: N.A.  
Target organs: N.A.

ORL-HUMAN LDL0 (Concentrated): 430 mg/kg  
IHL-RAT LC<sub>50</sub>: (Concentrated): 244 ppm/0.5 hr  
SKN-RBT LD<sub>50</sub>: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

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**SECTION 12 — ECOLOGICAL INFORMATION**

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Data not yet available.

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**SECTION 13 — DISPOSAL CONSIDERATIONS**

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Please consult with state and local regulations.  
Flinn Suggested Disposal Method #24b is one option.

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**SECTION 14 — TRANSPORT INFORMATION**

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Shipping Name: Nitric acid  
Hazard Class: 8, Corrosive  
UN Number: UN2031  
N/A = Not applicable

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**SECTION 15 — REGULATORY INFORMATION**

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Not listed.

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**SECTION 16 — OTHER INFORMATION**

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**Consult your copy of the *Flinn Science Catalog/Reference Manual*  
for additional information about laboratory chemicals.**