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SDS #: 552.2
Revision Date: December 3, 2018

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Nitric Acid Solution 0.2 M - 0.9 M Safety Data Sheet (SDS)

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Nitric Acid Solution 0.2 M - 0.9 M

Signal Word
WARNING

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261
Chemtrec Emergency Phone Number: (800) 424-10055

Pictograms

SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Skin and serious eye damage, corrosion or irritation (Category 2, 2A). Causes skin and serious eye irritation (H315+H319).



Industrial exposure to nitric acid vapors and mists is listed as a known human carcinogen by IARC (IARC-1).

SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Nitric acid	7697-37-2	HNO ₃	63.01	1.3-6.3%
Water	7732-18-5	H ₂ O	18.00	93-99%

SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician if you feel unwell.
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 so. Continue rinsing (P305+P351+P338). If eye irritation persists eyes: Get medical advice or attention (P337+P313).
If on skin: Wash with plenty of water (P302+P352). If skin irritation occurs: Get medical advice or attention (P332+P313).
If swallowed: Rinse mouth. Call a POISON CENTER or physician if you feel unwell.

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable, noncombustible solution.
In case of fire: Use a tri-class dry chemical fire extinguisher.

NFPA Code
H-3
F-0
R-0

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Ventilate area and contain the spill with sand or other inert absorbent material, neutralize with sodium bicarbonate or calcium hydroxide, and deposit in a 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, nitrites and azides. Store in a dedicated acid cabinet and away from any source of water. If an acid cabinet is not available, store in a Flinn Saf-Cube™. Never store with acetic acid.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Wear protective gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264).
Exposure guidelines: (as nitric acid) PEL 5 mg/m³ (OSHA); TLV 5.2 mg/m³ STEL 10 mg/m³ (ACGIH)

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Transparent, colorless or yellow corrosive liquid. Acrid odor.
Soluble: Miscible with water.

pH <1>
Specific gravity: 1.03 (2 M)

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with bases, reducers, alcohols, alkali and alkaline earth metals, brass, copper, copper alloys, galvanized iron, aluminum, organic materials, amines, and acetic acid. Corrodes steel and other metals.
Shelf life: Good, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Eye, skin and mucous membrane irritation.
Chronic effects: Dental erosion.
Target organs: Eyes, skin, respiratory system, teeth.

ORL-HUM LD₀: 430 mg/kg (as nitric acid)
IHL-RAT LC₅₀: 244 ppm/0.5 hr (as nitric acid)
SKN-RBT LD₅₀: N.A.

SECTION 12 — ECOLOGICAL INFORMATION

May be harmful to aquatic organisms.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply before proceeding.
Flinn Suggested Disposal Method #24b is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Nitric acid. Hazard class: 8, Corrosive. UN number: NA1760.

SECTION 15 — REGULATORY INFORMATION

Not listed.

SECTION 16 — OTHER INFORMATION

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

N/A = Not applicable

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

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