

Material Safety Data Sheet

J. R. Simplot Company

AgriBusiness

Trade Name: Nitric Acid 67% (42 BE)
Registration No: None

M16070

SECTION 1

CHEMICAL PRODUCT AND COMPANY INFORMATION

Manufacturer or Formulator: J.R. Simplot Company
P.O. Box 70013
Boise, ID 83707
Emergency Phone - Chemtrec: 1-800-424-9300

Product Name: Nitric Acid 67% (42 BE)
Common Name: Nitric Acid
Chemical Type: Inorganic Acid

SECTION 2

COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name and Synonyms	C.A.S. No.	Chemical Formula	WT% Hazardous Non-Hazardous	TLV	PEL
Nitric Acid	7697-37-2	HNO ₃	57.6-60.0	5mg/M ³	2 ppm TWA, 4 ppm STEL
Water		H ₂ O	40-42		

SECTION 3

HAZARDS IDENTIFICATION

Ingestion: Ingestion causes discoloration of teeth, mouth and throat; stomachache, nausea, vomiting of blood anuria, albuminuria, casts and circulatory collapse.

Inhalation: Inhalation causes dental erosion, cough, sneeze, chest pain, bronchitis, bronchopneumonia. May cause delayed pulmonary edema, which may be severe and sometimes fatal.

Eye Contact: Vapors are highly irritating to eyes. Acid can destroy eyes.

Skin Absorption: It destroys tissues, causes burns, severe pain and staining of skin yellow to brown.

Skin Contact: On contact with skin, it can destroy tissues, burn skin and stain skin.

Effects of Overdose: May cause acute or chronic pulmonary problems. Causes burning and corrosion of mouth, throat, esophagus, stomach; stomachache, nausea, shock, circulatory collapse, and death. Severe burns from acid; vapors are highly irritating to skin and mucous membranes.

SECTION 4

FIRST AID MEASURES

Ingestion: GET PROMPT MEDICAL ATTENTION. If patient is conscious, give large quantities of water. DO NOT INDUCE VOMITING.

Inhalation: Remove person from exposure to fresh air. Support respiration; give artificial resuscitation and call a doctor. Observe for 24 hours as symptoms may be delayed.

Eyes: Flush thoroughly with running water for 15-20 minutes and call a doctor.

Skin: Wash thoroughly with fresh running water for 15 minutes and call a physician. Remove all contaminated clothing while flushing with water. Do not reuse contaminated clothing until laundered.

SECTION 5

FIRE FIGHTING MEASURES

Extinguishing Media: Use water spray and suitable media to extinguish source of fire.

Special Fire Fighting Procedures: Do not apply water directly to acid. Keep containers cool. Full protective clothing including self-contained breathing apparatus, chemical gloves, and bands around legs, arms and waist should be provided. No skin surface should be exposed.

Unusual Fire and Explosion Hazards: Increases the flammability of combustible, organic and readily oxidizable materials. Reacts violently with acetic acid and acetic anhydride. Reacts violently with acetic acid, acetic anhydride, (acetone + acetic acid), (acetone + H₂SO₄), acetylene, acrolein, acronitrile, allyl alcohol, allyl chloride, 2-amino ethanol, NH₃, NH₄OH, aniline, anion exchange resins, (dichromate + anion exchange resins), Sb, AsH₃, Bi, B, boron decahydride, BP, BrF₅, n-butylaldehyde, Ca hypophosphite, C, Cs₂C₂, 4-chloro-2-nitroaniline, ClF₃, chlorosulfonic acid, cresol, cumene, Cu₃N₂, Cu₃N₃, cyanides, cyclic ketones, cyclohexanol, cyclohexanone, diborane, 2,6-di-tert-butyl phenol, diisopropyl ether, epichlorohydrin, ethanol, m-ethylaniline, ethylene diamine, ethylene imine, 5-ethyl-2-methyl pyridine, 5-ethyl-2-picoline, C₂H₅PH₂, FeO, F₂, furfuryl alcohol, Ge, glyoxal, hydrazine, HN₃, HI, H₂O₂, H₂Se, H₂S, H₂Te, (indane + H₂SO₄), isoprene, (ketones + H₂O₂), (lactic acid + HF), Li, Li₆Si₂, Mg, Mg₃P₂, Mg-Ti alloy, Mn, mesitylene, mesityl oxide, 2-methyl-5-ethyl pyridine, 4-methyl-cyclohexanone, NdP, nitrobenzene, oleum, organic matter, PH₃, PH₄I, P, P₄I₃, PCl₃, phthalic acid, phthalic anhydride, HK₂PO₂, beta-propiolactone, phosphophide, (Ag + ethanol), Na, NaN₃, NaOH, SbH₃, sulfamic acid, (H₂SO₄ + glycerides), terpenes, B₄H₁₀, thiocyanates, thiophene e, Ti, Ti alloy, Ti-Mg alloy, (H₂SO₄ + C₆H₅CH₃), toluidine, triazine, uns-dimethyl hydrazine, U, U-Nd alloy, U-Nd-Zr alloy, vinylacetate, vinylidene chloride, Zn, Zr-U alloys.

SECTION 6

ACCIDENTAL RELEASE MEASURES

Environmental Precautions: Toxic to aquatic life. Do not contaminate any waterway or any body of water by direct application, cleaning of equipment or disposal of nitric acid.

Steps to be taken in case material is released or spilled: Wear full protective clothing and self-contained breathing apparatus. Dike area to contain spill. Reclaim or neutralize with an equal mixture of soda ash and slaked lime. Wash neutralized acid into impound areas. Advise environmental authorities if substance has entered a sewer or water course, or has contaminated soil or vegetation.

SECTION 7

HANDLING AND STORAGE

Precautions to be taken in handling and storing: Protect against physical damage. Separate from metallic powders, carbides, reducing agents, combustible materials, organic acids, and all other readily oxidizable materials. Keep out of direct sunlight and poorly ventilated areas. Have adequate first aid water available.

SECTION 8

EXPOSURE CONTROLS/PERSONAL PROTECTION

Trade Name: Nitric Acid 67% (42 BE)
Registration No: None

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Ventilation Protection: Open ventilation or mechanical to control fumes below TLV.
Respiratory Protection: Acid vapor canister, air-supplied or self-contained breathing apparatus. Some self-contained breathing apparatus may contain oxidizable materials, such as activated carbon and therefore should not be used for protection against nitric acid. Consult with the respirator manufacturers to determine the appropriate type of equipment for a given application.
Protective Clothing: Full protective clothing. Should have chemical suit, chemical boots and chemical gloves available to use. If it's determined that the situation allows use of regular clothing, wear a chemical apron.
Suit Material Performance: suggested material by E.P.A.--user should determine by specific use)
Butyl poor Chlorobutyl good
Butyl/Neoprene good Neoprene good
CPE good Nitrile poor
Eye Protection: Chemical splash-proof goggles and/or face shield.
Other: Eyewash fountain and safety shower in area

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	187°F	Solubility in Water:	Infinitely
Specific Gravity:	1.3615 - 1.367 @ 60°F	% Volatiles (by volume):	Not available
Flashpoint:	Non-flammable	Vapor Pressure, mm Hg:	Not Applicable
Appearance:	Colorless to light yellowish-brown liquid. Acrid odor.	pH:	Less than 1.0
Reaction with Water:	Will produce heat and toxic and corrosive fumes.		
Extinguishing Media:	Water or media suitable to extinguish source of fire		

SECTION 10

STABILITY AND REACTIVITY

Stability (Normal Conditions): Stable
Conditions to Avoid: Avoid direct sunlight and poorly ventilated areas.
Incompatibility (Material to Avoid): Aromatic hydrocarbons, alcohols, glycerol, strong bases, metallic powders, carbides, turpentine, and combustible organics and oxidizers. Powerful oxidizing agent. Incompatible with many other materials. Check references such as [Sax Hazardous Chemicals](#) for full list.
Hazardous Decomposition Products: In oxidation of most organic materials, concentrated nitric acid will produce dense clouds of red or brown oxides of nitrogen.
Hazardous Polymerization: Will not occur

SECTION 11

TOXICOLOGY INFORMATION

Acute Inhalation Toxicity: LC₅₀ (rat) is 65-67 mg/m³; highly toxic by inhalation. (TFI Product Testing Results)
Acute Aquatic Toxicity: Algae 6.30 mg/L. Moderately toxic to aquatic organisms. (TFI Product Testing Results)

SECTION 12

ECOLOGICAL INFORMATION

None listed.

SECTION 13

DISPOSAL CONSIDERATIONS

Waste Disposal Procedures: Comply with local, state and federal regulations on disposal of "slurry". Never pour water into acid; always pour acid into water. Always obey hazard warnings and handle empty containers as if they were full.

SECTION 14

TRANSPORT INFORMATION

Shipping name:	RQ Nitric Acid (other than red fuming, with not more than 70% nitric acid), 8, UN2031, P.G. II		
Hazard Class:	8	C.A.S. Number:	7697-37-2
Reportable Quantity(RQ):	1000 lbs.	D.O.T. Number:	UN2031
Labels Required:	Corrosive	Haz Waste No:	D002
Placard:	Corrosive	EPA Regist No:	None

Refer to 49 CFR Hazardous Materials Table for further provisions, packaging authorizations and quantity limitations.

SECTION 15

REGULATORY INFORMATION

Carcinogenicity: by IARC?: Yes () No (X) by NTP?: Yes () No (X)

This product contains nitric acid (52-75%), CAS No. 7697-37-2, which is subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

SECTION 16

OTHER INFORMATION

Flash Point (Test Method):	Non-flammable	Flammable Limits	LOWER	UPPER
Autoignition Temperature:	Not applicable	(% BY VOLUME)	N/A	N/A
Hazard Rating (N.F.P.A.):	Health: 3	Fire: 0	Reactivity: 0	Specific: Oxy

This N.F.P.A. rating is a recommendation by the manufacturer using the guidelines or published evaluations prepared by the National Fire Protection Association (N.F.P.A.).

MSDS Version Number: 6 (revisions to Section 11)

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