

IMPORTANT
MATERIAL SAFETY DATA SHEET

READ CAREFULLY BEFORE USING CHEMICAL
 OSHA requires that this form be kept on file.

Product No. C4306G
Product Name NITRIC ACID, 69 - 70%

24 HOUR EMERGENCY ASSISTANCE		
CHEMTREC 800-424-9300		
HAZARD RATING		
4-EXTREME	Health Hazard	3
3-SEVERE	Flammability	0
2-MODERATE	Reactivity	3
1-SLIGHT		
0-MINIMAL		

SECTION 1	NAME
Chemical Synonyms	Azotic acid
Formula	HNO ₃
C.A.S. No.	7697 - 37 - 2

SECTION 2	HAZARDOUS INGREDIENTS OF MIXTURES		
Principal Hazardous Component(s)	%	P.E.L.	TLV Units
Nitric Acid	69-71	2 ppm	2 ppm

Melting Point (°F)	-7.6 to -42°F	Specific Gravity (H ₂ O=1)	1.37 - 1.42
Boiling Point (°F)	248 - 252°F	Percent Volatile by Volume (%)	100%
Vapor Pressure (mm Hg)	49 - 55	Evaporation Rate (----- =1)	No data.
Vapor Density (Air=1)	No data		
Solubility in Water	Complete		
Appearance & Odor	Colorless to slightly yellow liquid; irritating, suffocating odor.		

Flash Point (Method Used)	None	Flammable Limits in Air % by Volume	Lower	Upper
			N/A	N/A

Extinguisher Media Not applicable.

Special Firefighting Procedures
 Use water to cool containers exposed to fire. Use water in flooding quantities as fog. Wear protective clothing and self-contained breathing apparatus if fighting fire.

Usual Fire and Explosion Hazards
 This material is non-combustible but may ignite or react with many substances, such as wood or wood-based products. Contact with most metals may produce flammable and potentially explosive gases.

D.T. Nitric acid, 8, UN2031, PGII

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

SECTION 3 HEALTH HAZARD DATA
Permissible Exposure Limit Value
 TWA: 2 ppm (5 mg/m³); STEL: 4 ppm (10 mg/m³) *Flammable*

Effects of Overexposure
 Inhalation of nitric acid mist is severely irritating to the mucous membranes and respiratory tract, the effects of which may not show immediately after exposure. Signs exhibited after inhalation may include dryness in the throat and nose, cough, choking, chest pain and shortness of breath. Repeated inhalation at exposure levels greater than currently accepted limits may cause chronic bronchitis and/or chemical pneumonitis. Direct contact with the liquid is corrosive, producing immediate burns with skin destruction and possible ulceration. A yellow-brown discoloration may appear from contact with dilute and concentrated solutions. High mist concentrations may cause irritation of the skin and possibly burns. Direct contact with the eye will cause an immediate corrosive action with burns to the cornea and conjunctival epithelia. Permanent eye damage and impairment of vision may result. High mist concentrations may cause mild to severe eye irritation. Ingestion may cause burns to the mouth, throat and stomach, and gastroenteritis with any or all of the following symptoms: Nausea, vomiting, lethargy, diarrhea, bleeding or ulceration, and may be fatal.

Emergency and First Aid Procedures
Eyes: Immediately flush with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. **Skin:** Immediately flush with water for at least 15 minutes. Affected clothing should be removed immediately and should be laundered before re-use. **Ingestion:** Immediately drink large quantities of water. Do not induce vomiting. Do not give anything by mouth if the person is unconscious. **Inhalation:** Move to fresh air. If breathing is difficult, administer oxygen. Call a physician. If breathing has stopped, artificial respiration should be given immediately. Call a physician.

Stability	Conditions to Avoid
Stable <input checked="" type="checkbox"/> Unstable <input type="checkbox"/>	Heat and light.

Incompatibility (Materials to Avoid)
 Reacts with a wide variety of metals (especially when powdered), bases, carbides, sulfides, fulminates, picrates, chlorates, oxidizable inorganic compounds, organic chemicals, turpentine, and combustible materials.

Hazardous Decomposition Products
 Nitrogen oxides, hydrogen gas.

Hazardous Polymerization	Conditions to Avoid
May Occur <input type="checkbox"/> Will Not Occur <input checked="" type="checkbox"/>	N/A

Steps to be Taken in Case Material is Released or Spilled
 Remove all sources of ignition. Stop source of spill if it may be done safely. Evacuate the immediate area. Vapors must be suppressed by the use of a water fog. All water must be contained and treated as a hazardous waste and/or neutralized. Neutralization may include the use of lime. Compatible absorbents: Sand, clay soil, and commercial absorbents.

Waste Disposal Method
 Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. As a hazardous liquid waste, it must be disposed of in accordance with local, state and federal regulations in a permitted hazardous waste treatment, storage and disposal facility by treatment.

Respiration Protection (Specify Type)
 NIOSH - approved respirator if any exposure occurs.

Ventilation	Local Exhaust	X	Special	-----
	Mechanical (General)	-----	Other	-----

Protective Gloves Neoprene gloves **Eye Protection** Goggles and faceshield

Other Protective Equipment Lab coat. Eye wash and safety shower in work area.

Precautions to be Taken in Handling & Storing
 Keep container tightly closed when not in use. Store in a cool, dry, well-ventilated area. Do not store at temps above 38°C (100°F). Do not expose to direct light.

Other Precautions
 Read label on container before using. Do not wear contact lenses when working with chemicals. Generates extreme heat when mixed with water. When mixing, add acid to water; never add water to acid.

Approved by Steven C. Quandt Effective Date 10/19/2000 For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources in assuring proper use of these materials and the safety and health of employees.