

Nitric Acid 69% 5 PPB

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Nitric Acid 69% 5 PPB

Synonyms/Generic Names: None

Product Number: 3918

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information: 920-623-2140 (Monday-Friday 8:00-4:30)
www.columbuschemical.com

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

Hazard Not Otherwise Classified (HNOC): None

Signal Words: Danger

Pictograms:



GHS Classification:

Oxidizing liquids	Category 3
Skin corrosion	Category 1A
Serious eye damage	Category 1
Corrosive to metal	Category 1

GHS Label Elements, including precautionary statements:

Hazard Statements:

H272	May intensify fire; oxidizer.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage
H290	May be corrosive to metals

Precautionary Statements:

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220	Keep/Store away from clothing and other combustible materials.

P221	Take any precaution to avoid mixing with combustibles.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do not induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/physician.
P321	Specific treatment (see section 4 of SDS).
P363	Wash contaminated clothing before reuse.
P234	Keep only in original container.
P390	Absorb spillage to prevent material-damage.
P370+P378	In case of fire: Use water spray, dry chemical or carbon dioxide to extinguish.
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.
P501	Dispose of contents/container in accordance with local regulations.

Potential Health Effects

Eyes	Causes severe eye burns.
Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Severe irritation may quickly progress to chemical burns.
Skin	May be harmful if absorbed through skin. Causes severe irritation which will progress to chemical burns.
Ingestion	Contact may cause immediate severe irritation progressing quickly to chemical burns. Ingestion is likely to be harmful or have adverse effects.

NFPA Ratings

Health	3
Flammability	0
Reactivity	0
Specific hazard	OX

HMIS Ratings

Health	3
Fire	0
Reactivity	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Nitric Acid	69 - 70	7697-37-2	231-714-2	HNO ₃	63.01 g/mol
Water	Balance	7732-18-5	231-791-2	H ₂ O	18.00 g/mol

4. FIRST-AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing and seek medical attention immediately.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.

Skin	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately. Wash clothing before reuse.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Use appropriate media for adjacent fire: water spray, fog, carbon dioxide, foam, dry chemical. Cool containers with water. DO NOT use a heavy water stream as it may spread fire.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Will burn if exposed to heat, and in addition, will accelerate the burning of other combustibles, resulting in more rapid spread of fire. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. Thermal decomposition generates: toxic/ corrosive vapors. (See also Stability and Reactivity section).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Neutralize spill with sodium bicarbonate or lime. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area. Keep in fireproof place. Keep/store away from extremely high or low temperatures, direct sunlight, heat, ignition sources, combustible materials. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Nitric Acid	2 ppm 5.2 mg/m ³	TLV	ACGIH

	4 ppm 10 mg/m ³	STEL	ACGIH
	2 ppm 5 mg/m ³	PEL	OSHA
	2 ppm 5 mg/m ³	REL	NIOSH
	4 ppm 10 mg/m ³	STEL	NIOSH
	25 ppm	IDLH	NIOSH

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit usually 15 minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles, and face shield.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, and full body covering. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Colorless, light brown liquid.
Odor	Acrid
Odor threshold	Not Available
pH	<1 at 20°C (68°F)
Freezing point	(65.7% HNO ₃ = -20°F); (67.2% HNO ₃ = -25°F)
Initial boiling point and boiling range	(65.7% HNO ₃ = 246°F); (67.2% HNO ₃ = 248°F)
Flash point	Not Available
Evaporation rate	Not Available
Flammability (solid, gas)	Not Flammable
Upper/lower flammability or explosive limit	Not Explosive
Vapor pressure	9 – 10 mmhg @ 25°C (77°F)
Vapor density	>1 (air=1)
Density	1.37-1.41 g/cm ³ at 20°C (68°F)
Specific Gravity	~1.40
Solubility (ies)	Miscible
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	May intensify fire: oxidizer.
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Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Direct sunlight. Extremely high or low temperatures. Heat. Sparks. Overheating. Open flame. Incompatible materials. Adding water to acid should be avoided.
Incompatible Materials	Strong acids. Strong bases. Strong oxidizers. Metals. May be corrosive to metals. Reducing agents. Amines.
Hazardous Decomposition Products	Thermal decomposition generates: Corrosive vapors. Nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Water

Skin	Not Available
Eyes	Not Available
Respiratory	Not Available
Ingestion	LD50 Oral – Rat – >90000 mg/kg

Nitric Acid

Skin	Not Available
Eyes	Not Available
Respiratory	Not Available
Inhalation	LC50 Inhalation - Rat - 67 ppm/4h (67 mg/kg)

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Causes severe skin burns, itching, swelling, redness.
Eyes	Causes serious eye damage, Itching, redness, burning, and watering eyes.
Respiratory	Burning, choking, shortness of breath, coughing, wheezing, dizziness.
Ingestion	Burning, choking, nausea, vomiting, severe pain.

Chronic Toxicity	Not Available
Teratogenicity	Not Available
Mutagenicity	Not Available
Embryotoxicity	Not Available
Target Organ(s)	Lungs, Teeth, Cardiovascular system
Reproductive Toxicity	Not Available
Respiratory/Skin Sensitization	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Vertebrate	Not Available
Aquatic Invertebrate	Not Available
Terrestrial	Not Available

Persistence and Degradability	Not Available
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Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Avoid release to the environment
Log Pow	-2.3 (at 25°C)

13. DISPOSAL CONSIDERATIONS

Waste Product or Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	UN2031, Nitric acid, 8, (5.1), pg II
TDG	UN2031, NITRIC ACID, 8, (5.1), PG II
IMDG	UN2031, NITRIC ACID, 8, (5.1), PG II
Marine Pollutant	No
IATA/ICAO	UN2031, Nitric acid, 8, (5.1), pg II

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSL / NDSL	All ingredients are listed on the DSL inventory.
California Proposition 65	Not Listed
Rhode Island: Hazardous Substance List	Listed: Nitric Acid
Massachusetts: Toxic or Hazardous Substance List, Right to Know	Listed: Nitric Acid
Pennsylvania: Hazardous Substance List	Listed: Nitric Acid
New Jersey: Right to Know Hazardous Substance List	Listed: Nitric Acid
SARA 302	Listed: Nitric Acid
SARA 304	Listed: Nitric Acid
SARA 311	Fire Hazard, Reactive Hazard, Acute Health Hazard.
SARA 312	Fire Hazard, Reactive Hazard, Acute Health Hazard.
SARA 313	Listed: Nitric Acid
WHMIS Canada	Class C: Oxidizing material. Class E: Corrosive material.

16. OTHER INFORMATION

Revision	Date
Original	03/08/2021
Revision 1	01/24/2022

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