Safety Data Sheet

NITRIC ACID 70%

Section 1 - Chemical Product and Company Identification

SDS Name: Nitric Acid 70%
Catalog Numbers: SO-765
Company Identification: Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.
10 ELECTRONICS AVENUE
DANVERS, MA 01923
For information, call: 978-739-4883
Emergency Number: 800-424-9300
For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

H272-Oxidizing liquids: 2
H290-Corrosive to metals: 1
H301-Acute toxicity, oral: 3
H314-Skin corrosion/irritation: 1B
H318-Serious eye damage/eye irritation: 1
H330-Acute toxicity, inhalation: 2
H370-Specific target organ toxicity, single exposure: 1
H373-Specific target organ toxicity, repeated exposure: 2

Pictograms or Hazard symbols and Hazard statement(s):

Signal Word: Danger

Hazard Statements:

H272-May intensify fire; oxidizer

H290-May be corrosive to metals
H301-Toxic if swallowed
H314-Causes severe skin burns and eye damage
H318-Causes serious eye damage
H330-Fatal if inhaled
H370-Causes damage to organs
H373-May cause damage to organs through prolonged or repeated exposure

Precautionary Statements:

P210-Keep away from heat.
P220-Keep/Store away from clothing/combustible materials.
P221-Take any precaution to avoid mixing with combustibles.
P234-Keep only in original container.
P260-Do not breathe dust/fume/gas/mist/vapours/spray.
P264-Wash thoroughly after handling.
P270-Do not eat, drink, or smoke when using this product.
P271-Use only outdoors or in a well-ventilated area.
P280-Wear protective gloves/protective clothing/eye protection/face protection.
P284-Wear respiratory protection.
P301+P310-If swallowed: Immediately call a Poison Center or doctor/physician.
P301+P330+P331-If swallowed: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353-If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340-If inhaled: Remove victim to fresh air and keep at rest in a position 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.
P307+P311-If exposed: Call a Poison Center or doctor/physician.
P310-Immediately call a Poison Center or doctor/physician.
P314-Get medical advice/attention if you feel unwell.
P330-Rinse mouth.
P363-Wash contaminated clothing before reuse.
P370+P378-In case of fire: Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam extinguish.
P390-Absorb spillage to prevent material damage.
P403+P233-Store in a well-ventilated place. Keep container tightly closed.
P405-Store locked up.
P406-Store in corrosive resistant/container with a resistant inner liner.
P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
7697-37-2	Nitric Acid	65-70
7732-18-5	Water	30-35

Section 4 - First Aid Measures

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Seek immediate medical attention. Corrosive to naked eye. May cause blindness.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Wash with soap and water. Remove contaminated clothing and shoes. Seek immediate medical advice. Corrosive to exposed skin. May cause deep, penetrating ulcers of the skin. Causes poorly healing wounds.

Oral Exposure: May cause severe and permanent damage to the digestive tract. Causes gastrointestinal burns of the digestive tract, risk of perforation. Rinse mouth with water, and after rinsing drink water. Do NOT induce vomiting. Get immediate medical attention.

Inhalation Exposure: If inhaled, remove to fresh air. If not breathing give artificial respiration. Seek immediate medical attention. Effects may be delayed. May cause chemical burns to the respiratory tract.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating gases may be generated by thermal decomposition or combustion. Contact with combustibles may cause extremely violent combustion. Can react with metals to release flammable hydrogen gas. May react explosively with combustible organics or readily oxidizable materials such as alcohols, turpentine, charcoal, organic refuse, metal powders, hydrogen sulfite, etc.

Extinguishing Media: Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam.

Hazardous Combustion Products: Nitrogen oxides, irritating toxic fumes and gases.

Flash Point: Not available
Autoignition Temperature: Not available
Explosion Limits, Lower: Not available

Upper: Not available
NFPA Rating: (estimated) Health: 4; Flammability: 0; Instability: 1
OXIDIZING LIQUID.

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):
Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation.

Methods for Cleaning up: Absorb with sand, earth, or vermiculite. Do not use combustible materials such as saw dust. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains.

Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Use only under a chemical fume hood. Use with adequate ventilation. Remove contaminated clothing and wash before re-use. Do not ingest or inhale. Do not get in eyes. Do not get on skin or clothing. Keep container closed tightly. Avoid contact with combustibles, organics, or any other oxidizable materials. Do not use with metal tools or containers. Store in a cool, dry, and well-ventilated area. Protect from light. Keep away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Exposure Limits:

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Nitric Acid CAS#7697-37-2	2 ppm TWA 4 ppm STEL	2 ppm TWA 5 mg/m3 TWA 4 ppm STEL 10 mg/m3 STEL 25 ppm IDLH	2 ppm TWA 5 mg/m3 TWA

OSHA Vacated PELs: Nitric Acid: 2 ppm TWA; 5 mg/m3 TWA; 4 ppm STEL; 10 mg/m3 STEL

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: Clear, Light-yellow
Odor: Strong acrid
Vapor Pressure: 48 mm Hg @ 20°C
Odor threshold: Not available
Vapor Density: 2-3 (Air=1)
pH: 0.1 (1.0N solution)
Relative density: 1.419 g/cc for 69-70% Nitric Acid Solution
Melting point/freezing point: -41°C
Solubility: Completely miscible in water
Boiling Point: ca. 101°C
Flash point: Not applicable
Evaporation Rate: Not available
Flammability (solid, gas): Not applicable
Partition coefficient: n-octanol/water: Not available
Auto-ignition temperature: Not available
Decomposition temperature: Not available
Viscosity: 2.0 cPs
Specific Gravity/Density: 1.40

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Reacts violently with oxidizers: Risk of fire/explosion.
Conditions to Avoid: Incompatible materials, ignition sources, excess heat, freezing, combustible material, exposure to air, moisture, or light.
Incompatibilities with Other Materials: Metals/metal powders, oxidizing agents, reducing agents, strong bases, aldehydes, alcohols, ammonia, hydrogen sulfide, carbides, organic materials, combustibles, charcoal, cyanides, turpentine, acetic acid, acetone, aniline, organic solvents, chromic acid, flammables, sulfides.

Hazardous Decomposition Products: Nitrogen oxides, irritating toxic fumes and gases.

Section 11 - Toxicological Information

CAS#7697-37-2 Nitric Acid: RTECS#: QU5775000
LD50 Oral: 430 mg/kg (human)
LD50 Dermal: Not available
LC50 Inhalation: 2500 ppm 1h (rat)
Investigated as a mutagen, reproductive effecter.

Carcinogenicity: Nitric Acid CAS#7697-37-2 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop 65.

Epidemiology: Not available
Teratogenicity: Not available
Reproductive Effects: Not available
Developmental Effects: Not available
Neurotoxicity: Not available
Mutagenicity: Ames test negative on Salmonella typhimurium (germ cell mutagenicity)
Specific Target Organ Toxicity, Single Exposure: Not available
Specific Target Organ Toxicity, Repeated Exposure: Not available

The toxicological properties of this material have not been thoroughly investigated.

Note: Causes severe burns to all body tissue. Corrosive material. Ingestion causes severe swelling, severe damage to the tissue and danger of perforation. Vapors are irritating and may cause severe damage to the eyes. Splashes may cause severe burns and permanent eye damage. Vapor inhalation burns mucous membranes and may cause coughing and choking. Inhalation may cause lung and tooth damage.

Section 12 - Ecological Information

Ecotoxicity: Do not release to the environment. Do not release to drains. This material may affect the pH in water and risk harmful effects to aquatic life. Forms corrosive mixtures with water even when diluted. Hazardous to drinking water supplies.

CAS#7697-37-2 Nitric Acid:
LC50, freshwater fish: 100-300 mg/L 48h (asterias rubens)

Persistence and degradability: Not available

Bio-accumulative potential: Not available
Mobility: Will likely be mobile in the environment due to its water solubility.

Section 13 - Disposal Considerations

DISPOSAL: Dispose of in accordance with all federal, state, and local regulations.

Section 14 – Transport Information

DOT
Proper shipping name: Nitric Acid
UN2031
PG II
Hazard class 8, 5.1

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

SDS Creation Date: January 22, 2004
Revision #1. RC 11/5/15
Revision #2. Change from MSDS to SDS
Revision #3. Change statement on section 13
Revision #4. 9-20-18
Revision #5. 4-25-22

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