SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Common Name: **NITRIC ACID 16%**
Chemical Name: **ACID MIXTURE**
Preparation Date: 5/7/2020
Last Revision Date: 5/14/2020

Manufacturer's Name & Address
Roberts Chemical Co., Inc.
330-B Victor Road
Attleboro, MA 02703
TEL: 508-409-0220
FAX: 508-222-2752
www.robertschem.com

Emergency Telephone Number:
CHEMTREC **24-HourToll Free** (800) 424-9300

SECTION 2: HAZARD(S) IDENTIFICATION

HAZARD RATING NFPA

4 = EXTREME	**HEALTH**	**FLAMMABILITY**	**REACTIVITY**	**CONTACT**
3 = SEVERE	3	0	1	0
2 = MODERATE				
1 = SLIGHT				
0 = UNKNOWN				

GHS Label elements, including precautionary statements

Pictorgram: 

Signal Word: **DANGER**

Hazard Statement(s)

H290 – May be corrosive to metals
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage

Precautionary Statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ eye protection/ face protection.
P363 - Wash contaminated clothing before reuse.
P501 Dispose of contents/ containter to an approved waste disposal plant.

SECTION 3: COMPOSTION/ INFORMATION ON INGREDIENTS

PRODUCT	CAS#	% BY VOLUME
NITRIC ACID 42˚	7697-37-2	16
WATER	7732-18-5	84

SECTION 4: FIRST-AID MEASURES

EYES: flush eyes with large amounts of water for at least 15 minutes, holding lids apart to ensure flushing of the entire surface. Washing eyes within 1 minute is essential to achieve maximum effectiveness. Seek medical attention IMMEDIATELY.
SKIN: Immediately wash contaminated areas with plenty of water for 15 minutes.
Remove contaminated clothing and footwear, and wash before reuse. Discard any clothing that cannot be decontaminated. Seek medical attention immediately.
INGESTION: NEVER give anything by mouth to an unconscious person. If swallowed, give large quantities of water, milk, or 1% sodium thiosulfate solution. If vomiting occurs spontaneously, keep airway clear. Seek medical attention immediately.
INHALATION: remove to fresh air. If breathing is difficult, give oxygen. Seek medical attention.

SECTION 5: FIRE-FIGHTING MEASURES

Fire extinguishing media: Water, dry chemicals, CO_2.
Special fire-fighting procedures: Protective clothing and self-contained breathing apparatus should be worn to avoid oxides of nitrogen gas.
Avoid flushing to sewers or streams, toxic to aquatic life.
Unusual fire & explosion hazards: Can cause increased flammability in contact with wood or other organics.

SECTION 6: ACCIDENTAL RELEASE MEASURES

General Information neutralize with soda ash or sodium bicarbonate and flush to waste treatment system. Comply with Federal, State and Local regulations on disposal and reporting releases.

SECTION 7: HANDLING AND STORAGE

HANDLING: DO NOT BREATHE FUMES. Wear chemical splash-type mono-goggles, face mask, rubber or neoprene gloves, apron or protective clothing, and chemical resistant shoes. Wash thoroughly after handling. Containers, even those that have been emptied, will retain product residue and vapors. Always obey hazard warnings and handle empty containers as if they were full. Containers must not be used for any other purpose.

STORAGE: Keep from freezing. Keep container closed when not in use. Store drums in cool areas out of direct sunlight. Properly label containers. Store away from cyanides and combustibles. Do not store or handle food beverages, or tobacco near this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: Respiratory protection is recommended. Use NIOSH/MSHA approved respirator where mist or spray may be generated above TLV limits.
VENTILATION: Use adequate local exhaust ventilation where mist or spray may be generated, to maintain levels below TLV limits.
PROTECTIVE CLOTHING: wear rubber or acid resistant gloves and rubber apron.
EYE PROTECTION: chemical safety goggles or face shield.
WORK PRACTICES: skin that becomes contaminated with this substance should be immediately washed or showered with soap and water.
HYGIENIC PRACTICES: eating, drinking or smoking should not be permitted in areas where any chemical substances are handled, processed, or stored. Employees who handle these materials should wash their hands thoroughly with soap and water before eating, drinking, smoking or using toilet facilities.
Effects of overexposure: Acid burns to skin and eyes. Irritation to mucous membranes. Vapor is harmful to lungs.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Appearance: clear to yellow
Odor: strong odor - acrid odor - suffocating odor
pH: 1.0 (0.1M soln)
Vapor Pressure: 51 mm Hg @ 25 deg C
Vapor Density: 2.17 (air=1)
Evaporation Rate: Not available.
Viscosity: 0.761 cps @ 25 deg C
Boiling Point: 86 deg C
Freezing/Melting Point:-42 deg C
Decomposition Temperature: Not available.
Solubility: Soluble in water.
Specific Gravity/Density:1.4
Molecular Formula:HNO3
Molecular Weight:63.01

SECTION 10: STABILITY AND REACTIVITY

Stability: The product is stable.
Conditions to avoid: Contact with cyanides.
Incompatibility (materials to avoid): Strong reducing agents. Strong bases. Metals. Aluminum, Ammonia, Combustible materials, halogens.
Polymerization: Will not occur.
Hazardous Decomposition: Poisonous oxides of nitrogen and phosphorus.

SECTION 11: TOXICOLOGICAL INFORMATION

RTECS#:
CAS# **7732-18-5: ZC0110000**
CAS# **7697-37-2: QU5775000; QU5900000**
LD50/LC50:
CAS# 7732-18-5:
Oral, rat: LD50 = >90 mL/kg;

CAS# 7697-37-2:
Inhalation, rat: LC50 = 260 mg/m3/30M;
Inhalation, rat: LC50 = 130 mg/m3/4H;
Inhalation, rat: LC50 = 67 ppm(NO2)/4H;

Carcinogenicity:
CAS# 7732-18-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 7697-37-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: **No information found**
Teratogenicity: **No information found**
Reproductive Effects: **No information found**
Mutagenicity: **No information found**
Neurotoxicity: **No information found**
Other Studies:

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: **No data available. No information available.**
Environmental: **Terrestial: During transport through the soil, nitric acid will dissolve some of the soil material, in particular, the carbonate based materials. The acid will be neutralized to some degree with adsorption of the proton also occurring on clay materials. However, significant amounts of acid are expected to remain for transport down toward the ground water table. Upon reaching the ground water table, the acid will continue to move, now in the direction of the ground water flow.**
Physical: **No information available.**
Other: **No information available.**

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Neutralize to a pH of 6-8 with soda ash or sodium bicarbonate. Allow sludge to settle. Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14: TRANSPORTATION INFORMATION

PROPER SHIPPING NAME*: NITRIC ACID OTHER THAN RED FUMING, WITH NOT MORE THAN 20% NITRIC ACID*
HAZARDOUS CLASSIFICATION*:* 8
IDENTIFICATION NUMBER*:* UN 2031
PKG GROUP: PG II
Precautionary label: CORROSIVE

SECTION 15: REGULATORY INFORMATION

CERCLA Hazardous Substances and corresponding RQs
nitric acid CAS# 7697-37-2: 1000 lb final RQ; 454 kg final RQ
SARA Section 302 Extremely Hazardous Substances
nitric acid CAS# 7697-37-2: 1000 lb TPQ
SARA Codes
nitric acid CAS # 7697-37-2: immediate, delayed, fire.
Section 313
This material contains Nitric acid (CAS# 7697-37-2, 20-70%) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
Clean Water Act: **CAS# 7697-37-2 is listed as a Hazardous Substance under the CWA.**
OSHA: **CAS# 7697-37-2 is considered highly hazardous by OSHA.**
STATE **CAS# 7697-37-2 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, and Massachusetts.**

SECTION 16: OTHER INFORMATION

All information, recommendations and suggestions appearing herein concerning this product are based upon data believed to be reliable; however, it is the user's responsibility to determine the safe handling and suitability for the use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by **Roberts Chemical** as to the effects of such use, the results obtained, or the safety and toxicity of the product, nor does **Roberts Chemical** per se assume any liability arising out of use, by others, of the product referred to herein. Nor is the information herein to be construed as absolutely complete since more information may be desirable or necessary when particular or exceptional conditions or circumstances exist, or because of applicable laws or government regulations.