

SECTION 1: CHEMICAL PRODUCT & COMPANY IDENTIFICATION

CHEMICAL NAME: Nitric Acid**TRADE NAMES/SYNONYMS:** Nitric Acid**PRODUCT CODE:** NA: NA57WW; NA61, NA65B; NA68B**MANUFACTURER:**LaRoche Industries Inc.
1100 Johnson Ferry Rd., NE
Atlanta, GA 30342**EMERGENCY TELEPHONE NUMBERS:**Transportation (CHEMTREC): 1-800-424-9300
Environmental/Health/Safety: 1-800-528-4963
Customer Service 1-800-226-4585

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>CHEMICAL</u>	<u>FORMULA</u>	<u>% By WEIGHT</u>	<u>CAS</u>	<u>OSHA PEL</u>	<u>NIOSH REL</u>	<u>ACGIH TLV</u>
Nitric Acid	HNO ₃	53-68	7697-37-2	5mg/m ³ (TWA)	5mg/m ³ (TWA) 10mg/m ³ (STEL)	5mg/m ³ (TWA) 10mg/m ³ (STEL)
Water	H ₂ O	32-47	7732-18-5	None	None	None

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: (1) Colorless to light brown fuming liquid, pungent odor sinks and mixes with water; (2) Harmful vapor is produced; (3) Avoid contact with liquid and vapor; (4) Harmful to aquatic life, even at low concentrations; (5) Not flammable; (6) May cause fire on contact with combustibles.

POTENTIAL HEALTH EFFECT:

ROUTES OF ENTRY: Eyes, Inhalation & Ingestion. **EYE CONTACT:** Low concentrations of vapor or mist may produce ocular irritation and conjunctivitis. High concentrations of liquid nitric acid may cause severe burns or corneal opacification and ulceration. Necrosis of the conjunctiva may also result. In severe cases, permanent damage and visual impairment may occur. **SKIN CONTACT:** Exposure to vapor or mist may produce dermal irritation and can cause dermatitis on prolonged exposure. Liquid nitric acid is corrosive and may produce severe skin burns with ulcers and necrosis and yellow discoloration of the skin. **INHALATION:** Low concentrations of vapor or mist may be highly irritating to the mucous membranes of the eye and respiratory tract and cause coughing, sore throat, shortness of breath and labored breathing. Continued exposure may cause chronic bronchitis. Chemical pneumonitis may also result. Higher concentrations may cause severe breathing difficulties which may be delayed in on-set for several hours or abate and recur later. Prolonged exposure may produce dental erosion.. **INGESTION:** May cause corrosion and severe burns of the oral mucous membranes, throat and esophagus with immediate pain and dysphagia. Epigastric pain which may be associated with nausea and vomiting may occur. A 1 ml volume of nitric acid has been reported as a fatal dose.

CARCINOGENICITY: NTP? No IARC? No OSHA? No

SECTION 4: FIRST AID MEASURES

EYE CONTACT: Flush immediately with large amounts of water for at least 15 minutes while holding the eyelids open to ensure contact of water with all surfaces. Immediately seek medical aid. **SKIN CONTACT:** Immediately flush the affected area with large quantities of water together with soap and water washing. Remove contaminated clothing. Immediately seek medical aid. **INHALATION:** Remove from exposure. If breathing has stopped or is difficult, administer artificial respiration or oxygen as needed. Immediately seek medical aid. **INGESTION:** Do NOT induce vomiting. Immediately give large amounts of water to dilute the acid. If vomiting occurs, repeat treatment. Immediately seek medical aid.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: None **LOWER FLAMMABLE LIMIT:** N/A **UPPER FLAMMABLE LIMIT:** N/A**EXTINGUISHING MEDIA:** As required by fire conditions. If needed, dilute acid with large quantities of water.**FIRE & EXPLOSION HAZARDS:** Noncombustible, but dangerously reactive with many materials. Reacts explosively with metallic powders, carbides, hydrogen sulfide and turpentine. Increases the flammability of combustible, organic and readily oxidizable materials. Soluble in water.**NFPA HAZARD CLASSIFICATION:** Health: 3 Flammability: 0 Reactivity: 0 - Oxidizer (0=least ----- 4=highest)

SECTION 6: ACCIDENTAL RELEASE MEASURES

In case of release to the environment, report spills to the National Response Center 1-800-424-8802. RQ = 1,000 lbs.

Keep people away. Avoid contamination with organic matter. Flush away leaks or spill by flooding with water as quickly as possible. Dike to prevent watershed, waterway and water supply contamination. Using extreme caution because of heat generation, neutralize diluted acid with limestone, lime or soda ash. Any release of this material, during the course of loading, transporting, unloading or temporary storage, must be reported to U.S. DOT as required by 49 CFR 171.15 and 171.16.

For ADDITIONAL ASSISTANCE IN ANY TRANSPORTATION EMERGENCY, CALL CHEMTREC @ 1-800-424-9300.

SECTION 7: HANDLING AND STORAGE

Extreme caution is important in all phases of handling and storage. Do not store near metal powders, carbides, hydrogen sulfide, solvents, organic acids and all combustible or oxidizable materials. Avoid direct sunlight.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: Respiratory protection approved by NIOSH/OSHA for protection against acid gases or mist should be used to avoid inhalation of excessive air contaminants. Appropriate respirator selection depends on the type and magnitude of exposure.

SKIN PROTECTION: Chemical resistance data for protective equipment used should be determined based on the use of this product. Neoprene and polyvinyl chloride protective garments have been suggested for protection against materials of this chemical class (ACGIH Guidelines for the Selection of Chemical Protective Clothing, 1983). A faceshield should be used when appropriate to prevent face and eye contact with splashed materials.

EYE PROTECTION: Employees should be required to wear chemical safety goggles to prevent eye contact.

VENTILATION: Local exhaust ventilation should be used to control release of air contaminants in the work place. General dilution ventilation may assist with the reduction of air contaminant concentrations.

OTHER EQUIPMENT: Emergency eye wash stations and deluge safety showers should be available in the work area. When handling bulk shipments a full rubber suit, boots, gloves, faceshield and hard hat should be worn.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 246°F @ 57%

VAPOR DENSITY: Exceeds 1.0

DENSITY: 1.350 @ 78°F (57%).

MELTING POINT: -5.8°F @ 57%

VAPOR PRESSURE: 7.4 mm Hg @ 78°F

SOLUBILITY IN WATER: Complete

PERCENT VOLATILE BY VOLUME: 0.0%

pH: 0.1 in 10% Solution

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Material generally considered stable. **INCOMPATIBILITY (Materials to Avoid):** Avoid organic materials and metallic powders which can cause spontaneous ignition. **HAZARDOUS DECOMPOSITION PRODUCTS:** Oxides of nitrogen.

HAZARDOUS POLYMERIZATION: Will not occur. **CONDITIONS TO AVOID:** Stable under normal conditions. Avoid contact with oxidizable materials, such as wood, alcohol, paper, charcoal, sulfur, etc.

SECTION 11: TOXICOLOGICAL INFORMATION

IDLH: 25 ppm Following an inhalation exposure, an extended observation period is indicated since respiratory symptoms may be delayed in onset for as many as 30 hours or initial symptoms may abate and recur later with greater severity. Decomposition of nitric acid or its contact with oxidizable materials may produce toxic gases and vapors, such as various oxides of nitrogen.

SECTION 12: ECOLOGICAL INFORMATION

Damages environment if not recovered or neutralized.

SECTION 13: DISPOSAL CONSIDERATIONS

Wastes may be classified as hazardous under EPA characteristic of Corrosivity (D002). Follow all applicable federal, state and local regulations when disposing of waste materials.

For Hazardous Waste Regulations call 1-800-424-9346, the RCRA Hotline.

SECTION 14: TRANSPORT INFORMATION

PROPER SHIPPING NAME: Nitric Acid

IDENTIFICATION NUMBER: UN2031

DOT HAZARD CLASS: 8 (corrosive)

PACKING GROUP: II

SECTION 15: REGULATORY INFORMATION

NOTICE: This product is subject to the reporting requirements of SARA (1986, Section 313 of Title III) and 40 CFR Part 370.

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200: Nitric Acid is a hazardous chemical.

TOXIC SUBSTANCE CONTROL ACT: This material is listed in the TSCA Inventory.

EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT (SARA, TITLE III):

Section 302 Extremely Hazardous Substance: Yes

Section 311/312 Hazardous Categories: Acute

Section 313 Toxic Chemical: Yes

CERCLA/SUPERFUND, 40 CFR 117,302: Reportable Quantity is 1,000 lbs.

WHMIS: 1.0%

CALIFORNIA PROPOSITION 65: Reproductive: No Carcinogen: No

OSHA PROCESS SAFETY MANAGEMENT 29 CFR 1910.119: This product is not subject to the Process Safety Management requirements of 29 CFR 1910.119.

EPA CHEMICAL ACCIDENTAL RELEASE PREVENTION, 40 CFR PART 68: This product is not subject to the Risk Management Plan requirements of 40 CFR Part 68.

SECTION 16: OTHER INFORMATION

REASON FOR REVISION: a). New format MSDS; b). Revised Product Code and Customer Service Number information in Section No. 1; c) Addition of PSM/RMP information in Section 15; and d). Supersedes MSDS dated 02/01/97.

MSDS PREPARED BY: LaRoche Industries Inc. Regulatory Affairs Department

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