

**NITRIC ACID, SOLUTIONS TO 6.0 N****MATERIAL SAFETY DATA SHEET**

INTEGRA Chemical Company

1216 6th Ave N

Kent WA 98032

Phone: 253-479-7000

24 Hour Emergency Response: CHEMTREC 800-424-9300 (Outside USA 703-527-3887)

MSDS Number: N767.8N

Revision Date: 16-Apr-08

Revision No.: 004

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**Product Identification**Product Name: NITRIC ACID, SOLUTIONS TO 6.0 NSynonyms:Chemical Formula: MixtureFormula Weight: NAChemical Family: Analytical titrantIntegra Product Numbers: N767.8N**Hazard Overview**HMIS Rating: 3-0-3-HNFPA Rating: NEWarning Label:

DANGER!

Corrosive. Causes severe skin and eye burns. Do not allow contact with skin, eyes or clothing. Use only with adequate protective equipment. Harmful or fatal if swallowed.

**Components**

<u>Component</u>	<u>CAS #</u>	<u>%</u>
Water	07732-18-5	> 62
Nitric acid	07697-37-2	< 38

**Physical Data**Boiling Point: NASpecific Gravity: NAMelting Point: NAEvaporation Rate: NAVapor Pressure: NAVapor Density: NA Air = 1Solubility:

Miscible with water.

Appearance and Odor:

Colorless to yellowish liquid. May have pungent odor.

**Fire and Explosion Data**Flash Point: NATest Method:Auto-ignition Temperature: NAFlammable Limits (% by volume in air): Upper: NA

Lower: NA

Fire Extinguishing Media:

Material is not flammable. Use extinguishing media suitable to surrounding materials.

Special Firefighting Procedures:

Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.

Unusual Fire and Explosion Hazards:

None identified

**Health Hazard Information**Effects of OverexposureSkin Contact:

Corrosive material. Contact may cause severe burns. Effects of lesser concentrations may be less severe.

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### Health Hazard Information

#### Eye Contact:

Vapors mists and liquids are corrosive to the eyes. Brief contact with vapors may be severely irritating. Brief liquid contact with the eyes may cause severe damage and prolonged contact may result in permanent eye injury. Effects of lesser concentrations may be less severe.

#### Ingestion:

Harmful if swallowed. Liquids are extremely corrosive to the mouth and throat. Swallowing the liquid burns tissue, and can cause severe abdominal pain, nausea, vomiting, and collapse. Severe overexposure may be fatal. Effects of lesser concentrations may be less severe.

#### Inhalation:

Harmful or fatal if inhaled. Causes severe irritation or burns to the respiratory system, coughing, difficulty in breathing, chest pains, pulmonary edema, lung inflammation, and unconsciousness. Effects of lesser concentrations may be less severe.

#### Chronic Effects of Overexposure:

None Identified

#### Exposure Limits:

	<u>TWA</u>	<u>OSHA PEL STEL</u>	<u>Ceiling</u>
Water	NE	NE	NE
Nitric acid	2 ppm	NE	NE

  

	<u>TWA</u>	<u>ACGIH TLV STEL</u>	<u>Ceiling</u>
Water	NE	NE	NE
Nitric acid	2 ppm	4 ppm	NE

#### Toxicity Data:

Water	No information available	
Nitric acid	TDlo (oral, human)	430 mg/ka
	LDlo (unreported, human)	110 mg/ka
	LC50 (inhalation, rat)	2500 ppm/1H

#### Medical Conditions Generally Aggravated by Exposure:

None Identified

#### Target Organs:

Skin, eyes.

#### Reproductive Effects:

None Identified

#### Carcinogenicity:

None Identified

<u>Component</u>	<u>NTP Listing</u>	<u>IARC Listing</u>	<u>OSHA Regulated</u>
Water	No listing	No Listing	<input type="checkbox"/>
Nitric acid	No listing	No Listing	<input type="checkbox"/>

### Emergency First Aid Procedures

#### Skin Contact:

Immediately remove contaminated clothing. Flush skin with water for at least 15 minutes. Seek immediate medical attention.

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### Emergency First Aid Procedures

#### Eye Contact:

Immediately flush eyes with large amounts of water, holding lids apart to ensure rinsing of entire surface. Washing eyes within several seconds of contact is essential to achieve maximum effectiveness. Get immediate medical attention.

#### Inhalation:

Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult administer oxygen. Seek medical attention.

#### Ingestion:

Do not induce vomiting. If victim is conscious, give water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

#### Additional First aid and Treatment Notes:

No information available

### Reactivity Data

Stability: Stable

Hazardous Polymerization: Will Not Occur

#### Incompatibles:

Incompatible with strong bases. Carbonates, sulfides, cyanides, organic materials, strong reducing agents, most common metals.

#### Decomposition Products:

Oxides of nitrogen.

#### Conditions to Avoid:

Excessive heat and exposure to light.

### Spill and Disposal Procedures

#### Spill and Leak Procedures:

Prevent spread of spill. Wear full protective equipment, including a complete protective suit and an appropriate respirator depending upon the size of the spill. Carefully neutralize with soda ash or lime. Place material into clean disposal container. Flush spill area with water.

#### Disposal Procedures:

Dispose in accordance with all Local, State and Federal regulations.

### Protective Equipment

#### Ventilation:

Use general or local exhaust ventilation to meet TLV and PEL requirements.

#### Respiratory Protection:

Respiratory protection required if airborne concentrations exceed PEL or TLV. A chemical cartridge respirator with an acid/organic cartridge is recommended.

#### Skin and Eye Protective Equipment:

Safety goggles, face shield, chemical-resistant gloves and protective clothing appropriate for the risk of exposure. Maintain an eyewash station and safety shower nearby.

### Storage and Handling Precautions

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**Storage and Handling Precautions**

Storage Area: CORROSIVE, ACID

Store in a cool, dry, corrosive materials storage area. Minimize exposure to air and light. Protect containers from physical damage.

**Transportation Information**

*Regulated Material domestic ground transportation*

(reference: CFR Title 49, Transportation)

Proper Shipping Name: Nitric acid  
 UN or NA Identification number: UN2031      Hazard Class and Label: 8      Corrosive  
 Packing Group: II      Subsidiary Risk and Label:

*Regulated Material via Air Transportation*

(reference: ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air)

Proper Shipping Name: Nitric acid  
 UN Identification Number: UN2031      Hazard Class and Label: 8      Corrosive  
 Packing Group: II      Subsidiary Risk and Label:

	Packing Instruction	Max net qty per package
Passenger Aircraft:	If <20% nitric: 807/Y807	1/0.5 L
Cargo Aircraft:	If <20% nitric: 813	30 L

**Regulatory Information**

<u>Component</u>	<u>TSCA</u> <u>Inventory</u>	<u>CERCLA</u> <u>RQ</u>	<u>SARA EHS</u> <u>TPQ</u>	<u>SARA 313 Toxic Release</u> <u>de minimus</u>	
Water	<input type="checkbox"/>	lbs	<input type="checkbox"/> lbs	<input type="checkbox"/> lbs	
Nitric acid	<input checked="" type="checkbox"/>	1000 lbs	<input checked="" type="checkbox"/> 1000 lbs	<input checked="" type="checkbox"/> 1.0 lbs	
<u>SARA Hazard Categories:</u>	<u>Acute</u>	<u>Chronic</u>	<u>Flammability</u>	<u>Pressure</u>	<u>Reactivity</u>
Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nitric acid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Clean Air Act Categories:</u>	<u>SOCMI</u>	<u>HAP</u>	<u>Volatile HAP</u>	<u>Organic HAP</u>	<u>Ozone Depleting</u>
Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nitric acid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**MSDS Revision History:**

- 002 - Format revisions; updated header phone number
- 003 - Changed product name to broaden range of normalities. Updated all sections to accommodate this change.
- 004 - Updated Header Information

NE = Not established, NA = Not applicable or Not available

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\*\*\*\*\* END OF MSDS \*\*\*\*\*