

**APG****Analytical Products Group, Inc.**2730 Washington Blvd., Belpre, OH 45714  
740-423-4200 800-272-4442 Fax 740-423-5588**Material Safety Data Sheet**

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**Section I: Product Identification**

CATALOG NUMBER: 700/4070/4072/4073/6070/9160/9660	PRODUCT NAME: Trace Metals
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**Section II - Hazardous Ingredients/Identity Information**

Chemical Name	CAS Reg. No.	OSHA PEL (TWA)	% Composition*
Nitric Acid	7697-37-2	2ppm	12%
These sample solutions contain metal ions as trace concentrations in dilute nitric acid. Individual metallic element concentrations are all <0.1% by weight.			

**Non-Hazardous Ingredients/Identity Information**

Chemical Name	CAS Reg. No.	OSHA PEL (TWA)	% Composition*
Water, Inorganic salts			>88%
Total			100%

\* components are calculated on a weight/weight basis.

**Section III - Physical/Chemical Characteristics of Hazardous Ingredients**

BOILING POINT: 83 C		SPECIFIC GRAVITY: (H2O=1) 1.5027 @ 25 C	
VAPOR PRESSURE: 47.9 MMHG @ 20 C	SOLUBILITY IN WATER: Complete	APPEARANCE/ODOR: Colorless to pale yellow liquid with a suffocating odor.	

**Section IV - Fire and Explosion Hazard Data**

FLASH POINT (Method used): None available	AUTO IGNITION TEMPERATURE: N/A	FLAMMABLE LIMITS	LEL N/A	UEL N/A
EXTINGUISHING MEDIA: Water, dry chemical or soda ash.				
SPECIAL FIRE FIGHTING PROCEDURES: Move containers from fire area if you can do it without risk, apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of tanks. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if this is impossible withdraw from area and let fire burn. Use flooding amounts of water as fog, cool containers with flooding amounts of water, apply from as far a distance as possible. Avoid breathing corrosive vapors, keep upwind.				
UNUSUAL FIRE AND EXPLOSION HAZARDS: Concentrated nitric acid is not combustible, but is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Concentrated nitric acid reacts explosively with combustible organic or readily oxidizable materials such as alcohol, wood, turpentine, metal powders, etc.				

**Section V - Reactivity Data**

STABILITY:	Unstable <input type="checkbox"/>	Stable <input checked="" type="checkbox"/>	Conditions to Avoid: Incompatible materials, see above.
INCOMPATIBILITY (Materials to avoid): Concentrated nitric acid will react violently with organic and hydrophobic compounds. The analytical standard should not be exposed to water reactive substances			
HAZARDOUS DECOMPOSITION PRODUCTS: Nitric oxides			
HAZARDOUS POLYMERIZATION:	May Occur <input type="checkbox"/>	Will Not Occur <input checked="" type="checkbox"/>	Conditions to Avoid: None known

**Section VI - Health Hazard Data**

<b>ROUTES OF ENTRY</b>	Inhalation? X	Skin? X	Ingestion? X
HEALTH HAZARDS (Acute and Chronic): ACUTE: Concentrated nitric acid vapor or mist is an irritant to the eyes and skin. The sample solution may cause irritation if inhaled, ingested or absorbed through the skin. A burning sensation may occur. With Concentrated nitric acid, these symptoms are very severe. CHRONIC: Repeated and prolonged contact with concentrated nitric acid can result in mouth and bronchial problems. Prolonged skin contact results in dermatitis			
COMPONENTS LISTED AS CARCINOGENS OR POTENTIAL CARCINOGENS: N/A			
SIGNS AND SYMPTOMS OF EXPOSURE: Irritation of eyes with coughing and burning sensation on skin.			
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Individuals with bronchial symptoms and sensitive dermatitis.			
EMERGENCY AND FIRST AID PROCEDURES: Seek medical assistance for treatment, observation and support if necessary. EYE CONTACT: Corrosive, may cause pain, flush with water. Get immediate medical attention. SKIN CONTACT: Corrosive, may cause burns, flush with water, get medical attention. INHALATION: Remove to fresh air, if breathing has stopped, start artificial respiration, obtain medical assistance. INGESTION: Corrosive, immediate pain, dilute the acid immediately by giving large amounts of water. If vomiting persists, administer fluids repeatedly. Ingested acid must be diluted 100 times to render it harmless to tissue. Obtain medical attention.			

**Section VII - Precautions for Safe Handling and Use**

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Samples and solutions may be diluted with water, neutralized to a pH of seven and flushed to sewer if local regulations permit. Sample spills may be neutralized with sodium bicarbonate.
WASTE DISPOSAL METHOD: See above
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Handle as a mild corrosive liquid.
OTHER PRECAUTIONS* Analytical standard samples should never be concentrated by evaporating or heating.

**Section VIII - Control Measures**

RESPIRATORY PROTECTION (Please specify): None needed with sample or diluted solution.	
VENTILATION: Local exhaust	
PROTECTIVE GLOVES: Vinyl or latex.	EYE PROTECTION: Safety glasses
OTHER PROTECTIVE EQUIPMENT: Impervious Clothing	
EMERGENCY WASH FACILITIES: Maintain eye wash and quick drench showers in work area.	

The information stated in this Material Safety Data Sheet (MSDS) is believed to be correct on the date of publication and must not be considered all conclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. Persons not specifically and properly trained should not handle this chemical or its container. This MSDS is provided without any warranty expressed or implied, including merchantability or fitness for any particular purpose.

This product is furnished for laboratory use ONLY! Our standards may not be used as drugs, cosmetics, agricultural or pesticidal products, food additives or as house hold chemicals.

\* Various Government agencies (i.e., Department of Transportation, Occupational Safety and Health Administration, Environmental Protection Agency, and others) may have specific regulations concerning the transportation, handling, storage or use of this product which may not be contained herein. The customer or user of this product should be familiar with these regulations.