MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Nitric Acid 68, Semi Grade
Product Number: HNO3-68 CAS Number: 7697-37-2
Synonyms: Aqua Fortis; Azotic Acid; Hydrogen Nitrate

NuGeneration Technologies, LLC
100 Professional Center Dr. Suite 101, Rohnert Park, CA 94928 USA
(707) 820-4080 (For product information)
1-800-424-9300 or 1-202-483-7616 (CHEMTREC - For emergencies)

SPECIAL NOTES: This product meets "Semi Grade" filtered to 0.2 um.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Nitric Acid 68 CONTAINING: HAZARDOUS AND/OR REGULATED COMPONENTS

Chemical Name	Amount	CAS Number
NITRIC ACID	68-70 %	7697-37-2

NON-HAZARDOUS COMPONENTS

Chemical Name	Amount	CAS Number
DEIONIZED WATER, ELECTRONICS GRADE,	Balance	7732-18-5

(See Section 8 for exposure guidelines)
(See Section 15 for regulatory information)

COMPOSITION COMMENT:
This product formulated with Semi Grade or higher ingredients and is suitable for use in Medical Device manufacturing processes.

HAZARDS DISCLOSURE
This product contains hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

SARA 311 Categories:
Immediate (Acute) Health Effects....: Yes
Delayed (Chronic) Health Effects....: Yes
Fire Hazard.....: No
Sudden Release Of Pressure Hazard...: No
Reactivity Hazard.....: Yes

3. HAZARDS IDENTIFICATION

POISON! DANGER! CORROSIVE. LIQUID AND MIST CAUSE SEVERE BURNS TO EYES AND SKIN. MAY BE FATAL IF SWALLOWED OR INHALED. INHALATION CAUSES BURNS TO RESPIRATORY TRACT AND CHRONIC BRONCHITIS LEADING TO LUNG DAMAGE. STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE.

HMIS Rating - Health: 4
Flammability: 0
Reactivity: 1
Personal Protection Index: G

NFPA Rating - Health: 4
Flammability: 0
Reactivity: 1
Special Hazard: Corrosive

NFPA/HMIS Definitions: (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

POTENTIAL HEALTH EFFECTS
EYE:
Corrosive, contact causes severe eye burns. Substance causes severe eye irritation and may cause permanent tissue damage.

SKIN:
Contact may cause severe skin irritation and possible burns. Harmful if absorbed through the skin.

INHALATION:
Avoid breathing vapors or mists. Irritating to the nose, throat, and respiratory tract.

INGESTION:
Ingestion is not considered a potential route of exposure. Corrosive and may cause severe and permanent damage to mouth, throat, and stomach. If ingested seek prompt medical attention.
SIGNS AND SYMPTOMS OF EXPOSURE:
If exposed areas are flushed promptly and thoroughly with SOAP & water, there should be little or no harm. Phosphoric acid is completely soluble in water.

REPRODUCTIVE HAZARDS: No known reproductive hazards.

CARCINOGENICITY INFORMATION: No known cancer hazards.

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:
Flush eye with water for 15 minutes. Get immediate medical attention.

SKIN CONTACT FIRST AID:
Immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops or persists.

INHALATION FIRST AID:
Although this product is not known to cause respiratory problems, if breathing is difficult, remove to fresh air and provide oxygen. Seek immediate medical attention if respiratory irritation or distress continues.

INGESTION FIRST AID:
Get medical attention immediately. Do not induce vomiting. For larger amounts, do not induce vomiting, but give one or two glasses milk to drink and get medical attention.

STATEMENT OF PRACTICAL TREATMENT:
Always have plenty of water available for first aid.

NOTES TO PHYSICIAN:
Treat patient symptomatically.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
COC Flash Point: None TCC Flash Point: None
Autoignition Temperature: None

FLAMMABLE LIMITS IN AIR LEL: None UEL: None

EXTINGUISHING MEDIA: Will not burn.

FIRE FIGHTING INSTRUCTIONS:
Contaminated extinguishing water must be disposed of in accordance with applicable regulations.

6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):
Protect skin and eyes from exposure. Ventilate spill area.

INITIAL CONTAINMENT:
Contain spilled material. Do not allow material to enter soil or surface water.

LARGE SPILLS PROCEDURE:
Forms smooth, slippery surfaces on floors, posing an accident risk. Dilute with water and wash to waste water treatment system. Large spills may be neutralized with dilute alkaline solutions of soda ash, or lime. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

SMALL SPILLS PROCEDURE:
Floor may become slippery. Absorb spills with inert material. After cleaning spill with absorbent material wash area with soap and water. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

7. HANDLING AND STORAGE

RECOMMENDED STORAGE TEMPERATURE
Minimum: 4.4 C (39.9 F) Maximum: 48.9 C (120.0 F)

HANDLING (PERSONNEL):
Avoid contact with eyes, skin, and clothing.

HANDLING (PHYSICAL ASPECTS):
Keep out of reach of children. Keep from freezing. Keep container closed to avoid contamination. Store in a cool dry area.

STORAGE PRECAUTIONS:
Do not stack pails more than three pallets high. Do not stack drums more than two pallets high. Keep from freezing. Keep container closed when not in use.

MISCELLANEOUS:
Do not stack over two pallets high.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:
No special ventilation requirements.

EYE / FACE PROTECTION REQUIREMENTS:
When splashing of the material may occur, chemical goggles and a face shield are recommended.

SKIN PROTECTION REQUIREMENTS:
Wear protective gloves to minimize skin contamination.

RESPIRATORY PROTECTION REQUIREMENTS:
Under normal use conditions, with adequate ventilation, no special handling equipment is required.

MISCELLANEOUS:
Where an apron and protective clothing.

EXPOSURE GUIDELINES:
No Information Available.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM	Liquid
COLOR	Clear
ODOR	Strong Odor (Extremely Dangerous)
BOILING POINT	>212 F
SOLUBILITY IN WATER	Complete
SPECIFIC GRAVITY	1.25 (Water = 1)
BULK DENSITY	10.4
MELTING/FREEZING POINT	<32 F
PH	<1
% VOLATILES	0.0 %
VOLATILE ORGANIC COMPOUNDS (VOC) ...	None

10. STABILITY AND REACTIVITY

STABILITY:
Stable.

POLYMERIZATION:
Hazardous polymerization will not occur.

INCOMPATIBILITY WITH OTHER MATERIALS:
Avoid contact with strong bases. Incompatible with alkaline and alkaline earth metals. Will react with alkaline materials (use to neutralize).

DECOMPOSITION:
Decomposition will not occur if handled and stored properly.

CONDITIONS TO AVOID:
Avoid contact with this material and Ferrous metal surfaces. This material is safe under normal storage and handling conditions.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS:
Can cause severe eye irritation including burns and or permanent damage.

SKIN EFFECTS:
Contact may cause skin irritation, rash or burns.

ACUTE ORAL EFFECTS:
May cause severe tissue burns.

ACUTE INHALATION EFFECTS:
Inhalation of this material is irritating to the nose, mouth, throat and lungs. This product has a low vapor pressure and is not expected to present an inhalation hazard at ambient conditions.

REPRODUCTION AND BIRTH EFFECTS:
There are no known or reported effects on reproductive function or fetal development.

CHRONIC EFFECTS /:
There are no know or reported effects from repeated exposure.

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:
Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements. For additional waste disposal information contact your local NuGenTec representative at (888) 99-NuGen. Un-cleaned empty containers should be disposed of in the same manner as the contents.

CONTAMINATED MATERIALS:
Wash contaminated clothing before reuse.

CONTAINER DISPOSAL:
Clean out containers prior to disposal.

14. TRANSPORTATION INFORMATION

PRODUCT LABEL .....:	Nitric Acid 68, Semi Grade
D.O.T. SHIPPING NAME .....:	Corrosive Liquid
TECHNICAL SHIPPING NAME ...:	Nitric Acid, Solution, 8, UN2031, PG II, Marine Pollutant
D.O.T. HAZARD CLASS .....:	Corrosive
UN NUMBER .....:	2031
PRODUCT RQ (LBS) .....:	1,000
D.O.T. LABEL .....:	Corrosive Liquid
D.O.T. PLACARD .....:	#8
BULK CLASS .....:	N/A
PACKAGE CLASS .....:	55, PG II

15. REGULATORY INFORMATION

EEC Symbols and Indications of Danger:
Harmful (Xn), Corrosive (C), Dangerous For The Environment (N)

R-Phrases:
R34 - Causes burns.
R51 - Toxic to aquatic organisms.
R20/21/22 - Harmful by inhalation, in contact with skin, and if swallowed.

S-Phrases:
S25 - Avoid contact with eyes.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

WHMIS Hazard Symbols:
Class E - Corrosive Material

Canadian Disclosure List
NITRIC ACID (7697-37-2)

SARA Title III - Section 313
NITRIC ACID (7697-37-2)

CERCLA Hazardous Substances
NITRIC ACID (7697-37-2) -- RQ 1000 lb

RCRA Hazardous Substances

Clean Air Act - Section 112

Title V
NITRIC ACID (7697-37-2)

SC Toxic Air Pollutants List
NITRIC ACID (7697-37-2)

FDA (FOOD AND DRUG ADMINISTRATION):
This product has been formulated with USP or better ingredients.

MISCELLANEOUS INFORMATION:
This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA). This material or all of its components are listed on the Canadian Domestic Substances List (DSL). This material or all of its components are listed (or considered as having been notified) on the European Inventory of Existing Chemical Substances (EINECS).

16. OTHER INFORMATION

PREPARED BY .....: Donato Polignone
APPROVAL DATE .....: March 10, 2008
SUPERSEDES DATE ...: June 1, 2005
PRD NUMBER .....: HNO3-68 (Official Copy)

ADDITIONAL INFORMATION:
The data in this Material Safety Data Sheet relates only to the specific material designated herein. It does not relate to use in combination with any other material or in any process.

****
This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of NuGeneration Technologies, LLC. The data on this sheet are related only to the specific material designated herein. NuGeneration Technologies, LLC assumes no legal responsibility for use or reliance upon these data.

****
END OF MSDS
****