Material Safety Data Sheet

Section 1 – Chemical Product and Company Identification

Catalog Numbers: SN3360-A, SN3360-B, SN3360-C, SN3360-D, SN3360-P, SN3360-Q, SN3360-G, SN3360-T
Product Identity: Silver Nitrate, 0.020N

Chemical Family: Not Applicable
Synonyms: Nitric acid, silver salt solution (Certified)
Recommended Use: Laboratory chemicals

Manufacturer’s Name: AquaPhoenix Scientific, Inc., 9 Barnhart Dr., Hanover, PA 17331, (866) 632-1291
Emergency Contact Number (24hr): Chemtel (800) 255-3924

Issue Date: 3/7/07
Revision Date: 04/29/10, 02/19/12

Section 2 – Hazard Identification

Emergency Overview
May cause eye, skin, and respiratory tract irritation. The toxicological properties have not been fully investigated. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Appearance: Clear, colorless liquid  Odor: Odorless
Target Organs: nasal septum, eyes, skin.

Potential Health Effects/ Routes of Exposure:
Eyes: May cause slight irritation.
Skin: May cause slight irritation and temporary discoloration.
Ingestion: Large quantities may cause upset stomach. At higher concentrations considered a poison.
Inhalation: Not likely to be a hazard by inhalation.

Chronic Effect / Carcinogenicity: Tumorigenic effects have been reported in experimental animals. Experiments have shown reproductive toxicity effects on laboratory animals. May cause adverse liver effects. May cause adverse kidney effects. (IARC, NTP, OSHA)

Aggravated Medical Conditions: No information available
These chemicals are not considered hazardous by OSHA.
See section 11 for toxicological information. See section 12 for potential environmental effects.

Section 3 – Composition, Information on Ingredients

Silver Nitrate, CAS# 7761-88-8, < 1% w/v
Water, purified, CAS# 7732-18-5, >99% w/v

Section 4 – First Aid

Eyes: Immediately flush eyes with water for at least 15 minutes. Immediately get medical assistance.
Skin: Flush with water for 15 minutes. Get medical assistance if irritation develops.
Ingestion: DO NOT induce vomiting. Dilute with water or milk. Get medical assistance.
Inhalation: Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

Notes to Physician: Treat symptomatically.

Section 5 – Fire Fighting Measures

Flash Point: Not Applicable  Autoignition Temperature: No information available.
Explosion Limits Upper: No data available  Lower: No data available
Extinguishing Media: Use water or water spray.
Unsuitable Extinguishing Media: No information available
Fire & Explosion Hazards: Not considered to be a fire or explosion hazard.

Fire Fighting Instructions / Equipment: Use normal procedures. Poisonous gas may be produced in fire. Use protective clothing. Use NIOSH-approved breathing equipment.

Hazardous Combustion Products: No information Available

Sensitivity to mechanical impact: No information available.

Sensitivity to static discharge: No information available.

Specific Hazards Arising from the Chemical: Thermal decomposition can lead to release of irritating gases and vapors

NFPA Rating: (estimated) Health: 1; Flammable: 0; Reactivity: 0

Section 6 – Accidental Release Measures

Personal Precautions: Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

Environmental Precautions: Should not be released into the environment.

Methods for Containment and Clean Up: Soak up with inert absorbent material. Keep in suitable and closed containers for disposal.

Section 7 – Handling and Storage

Handling: Wash hands after handling. Avoid contact with skin and eyes.

Storage: Keep Protect from freezing and physical damage. Protect from light.

Section 8 – Exposure Controls, Personal Protection

Silver Nitrate, CAS# 7761-88-8, ACGIH TLV: 0.1mg/m3, OSHA PEL: 0.1mg/m3

Water, purified, CAS# 7732-18-5, ACGIH TLV: NA, OSHA PEL: NA

Engineering Measures/ General Hygiene: Normal ventilation is adequate. Ensure eyewash and safety showers are available.

Personal Protection Equipment: Skin Protection: Chemical resistant gloves.

Eye/Face Protection: Safety Glasses or goggles. Respiratory Protection: Normal ventilation is adequate.

Section 9 – Physical and Chemical Properties

Appearance/Physical State: Clear, colorless liquid

Odor: Odorless

Boiling Point: Approx 100°C

Melting Point: Approx 0°C

Vapor Density: 0.7

Evaporation Rate: > 1

pH: No Information Available

Flammability: No Information Available

Solubility: Soluble in water available

Relative Density: No Information Available

Molecular Weight: Not available

Section 10 – Stability and Reactivity

Chemical Stability: Stable under normal conditions of use and storage.

Incompatible Materials: Ammonium Hydroxide, organic materials, sulfides, charcoal, acetylene, ethanol, reducing agents, calcium carbide, alkalis, antimony salts, carbonates, bromides, arsenites, chlorides, ferrous salts, thiocyanates, iodides, tartrates, tannic acid and phosphates.

Conditions to Avoid: Excess heat.

Hazardous Decomposition Products: Oxides of Nitrogen.

Hazardous Polymerization: Does not occur

Hazardous Reactions: None under normal processing.

Section 11 – Toxicological Information
Routes of Exposure/Symptoms/Corrosiveness – See Section 2
LD50 orl-rat: 1173mg/kg (Silver Nitrate)  LC50 inhalation-rat: NA
Irritation: No Information Available
Toxicologically Synergistic: No Information Available
Chronic Exposure
Carcinogenicity There are no known carcinogenic chemicals in this product
Sensitization No information available.
Mutagenic Effects Mutagenic effects have occurred in experimental animals.
Reproductive Effects Experiments have shown reproductive toxicity effects on laboratory animals.
Developmental Effects (Immediate/Delayed) No information available.
Teratogenicity No information available.
Other Adverse Effects Tumorigenic effects have been reported in experimental animals.
Endocrine Disruptor Information No information available

Section 12 – Ecological Information

Ecotoxicity: Toxicity of Silver to aquatic life depends on hardness: the higher the concentration of hardness, the higher the concentration of silver needed to be considered toxic. Has high chronic toxicity to aquatic life which can cause shorten life span, reproductive problems, lower fertility, and changes in appearances and behavior.
Persistenace and Degradability: No Information Available  Mobility: No Information Available
Bioaccumulation/ Accumulation: No Information Available

Section 13 – Disposal Considerations

Waste Disposal/Waste Disposal of Packaging: Do not flush to sewer. Absorb with suitable material and containerize for disposal.
All chemical waster generators must determine whether a discarded chemical is classified as hazardous waste. Comply with all local, state, and federal regulations.

Section 14 – Transport Information

DOT - Not Regulated

Section 15 – Regulatory Information (not meant to be all inclusive)

OSHA Status: These chemicals are not considered hazardous by OSHA.
Canada DSL: CAS# 7732-18-5 & 7761-88-8 are listed on Canada’s DSL list.
TSCA: The components of this solution are listed on the TSCA Inventory
SARA Title III Section 313: Not Applicable
RCRA Status: Not Applicable
CERCLA Reportable Quantity: Silver Nitrate – 1000 lbs
WHMIS: Non-controlled
This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Section 16 – Additional Information

Disclaimer: The information on this MSDS applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user’s responsibility to determine the suitability and completeness of this information for his own particular use. No warranty is implied regarding the accuracy of the data or the results to be obtained from the products use.