Section 1. Product and Company Identification

| Product Identification: | QC-TOXM-B BLANK |
|-------------------------------|---------------------------|
| MSDS Number: | QC-TOXM-B BLANK |
| Company Identification: | High-Purity Standards |
| | P.O. Box 41727 |
| | Charleston, SC 29423 |
| | Telephone: (843) 767-7900 |
| | FAX: (843) 767-7906 |
| In case of emergency call INF | OTRAC: 800-535-5053 |

in case of emergency call INFOTRAC: 800-535-5053

| Section 2. Chemical Composition | | | | | |
|---------------------------------|------------|---------------|---------------|--------------------|--|
| Component | CAS/EINECS | Percent | ACGIH TLV | OSHA PEL | |
| | Registry # | Concentration | | | |
| Borosilicate | 65997-17-3 | media | Not Available | Not Available | |
| Nitric Acid | 7697-37-2/ | 0.1-2 | 2 mg/kg | 5 mg/m^3 | |
| | 231-714-2 | | | - | |
| Tartaric Acid | 87-69-4 | < 0.1 | Not Available | Not Available | |

Section 3. Hazard Identification

Emergency Overview: Mildly corrosive. May cause irritation to areas of contact. Wash areas of contact with water for at least 15 minutes. If ingested, do not induce vomiting. Dilute with water and call a physician.

Target Organs: Eyes, skin, respiratory system, teeth.

Skin/eye Contact: Liquid may cause burns to skin and eyes.

Inhalation: May cause irritation.

Ingestion: May cause nausea, vomiting, and diarrhea.

Section 4. First Aid Measures

Inhalation: Remove to fresh air. Give artificial respiration if necessary and seek immediate medical advice.

Skin/eye Contact: Remove contaminated shoes and clothing. Flush contaminated area with plenty of water for at least 15 minutes. Call a physician if irritation develops.

Ingestion: Rinse mouth with water. If swallowed, do NOT induce vomiting. CALL A PHYSICIAN in all cases.

Section 5. Fire Fighting Measures

Fire & Explosion Hazards: While nitric acid is not combustible, it is a strong oxidizing agent that can react with combustible materials. NO_x compounds can be released in event of fire.

Extinguishing Media: Use any extinguishing media that is suitable for the surrounding area. Use a water spray to dilute nitric acid and to absorb liberated nitrogen oxides.

Specific Methods: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. This is especially important if this material becomes airborne.

Section 6. Accidental Release Measures

In solid form this material does not represent a health risk

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Section 7. Handling and Storage

Store in a cool, dry, ventilated storage area in a tightly sealed container. Store away from sources of heat, ignition and oxidizing agents. Refer to Section 8 for personal handling instructions.

Section 8. Exposure Controls and Personal Protection

Engineering Controls: Under normal use conditions no specific controls are needed, normal room ventilation is adequate. Otherwise, use in vent hood.

Respiratory Protection: If possibility of material burning, wear suitable respirator. Personal Protection: Wear proper gloves, safety glasses with side shields, lab coat/apron.

Section 9. Physical and Chemical Properties

Form: Solid Molecular Weight: N/A Melting Point: N/A Boiling Point: N/A Vapor Pressure (mm): N/A Vapor Density (air+1): N/A Specific Gravity (H₂O= 1): N/A Solubility in H₂O: Insoluble at 20°C Danger of Explosion: Not Explosive Autoignition temperature: 130°C minimum, determined on aged membrane. Appearance: White porous solid disks Odor: Odorless pH: N/A

Section 10. Stability and Reactivity

Stability Indicator: YES
Conditions to Avoid: Incompatibles
Incompatibles: Strong oxidizing agents, acids.
Hazardous Decomposition Products: Oxides of carbon. NO_x compounds including nitric oxide (NO), nitrogen dioxide (NO₂), nitrous oxide (N₂O) and nitric acid mist or vapor. May release toxic metals upon burning.
Hazardous Polymerization: None expected.

Section 11. Toxicological Information

RTECS#: : HNO₃- QU5775000

Toxicity Data: LD_{L0} Oral, Human: (Nitric Acid) 430 mg/kg

Section 12. Ecological Information

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Ecotoxicological information: Do not allow material to reach ground water, water bodies, or sewage system.

Section 13. Disposal Considerations

General: Follow federal, state and local regulations for acid waste.

Section 14. Transport Information

D.O.T. Classification: Hazardous by IATA and 49CFR regulations (based on concentration of acid). D.O.T. Shipping Name: Nitric Acid (0.1-2%) D.O.T. Hazard Class: 8 U.N./N.A. Number: 2031 Packing Group: II

D.O.T. Label: Corrosive (8)

Section 15. Regulations (Not meant to be all inclusive-selected regulation listed)

TSCA Status: Components of this solution are listed on the TSCA Inventory.
RCRA Status: No
SARA: Subject to the reporting requirements of Section 313 of SARA Title III and of 40 CFR 372
Risk Phrases: R21 Harmful in contact with skin.
Safety Phrases: S36/37/39, 41, Wear suitable protective clothing, gloves and eye/face protection.

In case of fire, do not breathe fumes.

Note: Restricted to Professional Users.

WHMIS Information (Canada): Not regulated

Section 16. Other Information

HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel only. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The MSDS was prepared carefully and represents the best data currently available to us; however, HPS does not certify the data on the MSDS. Certified values for this material are given only on the Certificate of Analysis.

Theodore C. Rains, Ph.D.