Section 1. Chemical Product and Company Identification

Product Code
ASALUM”1

Product Name
AS ALUMINA POLISHING SUSPENSIONS .05, .3, 1.0, 5.0 MICRON

Manufacturer's Name
Mark V Laboratory, Inc.

Address (Number, Street, City, State, and ZIP Code)
18 Kripes Road

Date Prepared
July 1, 2013

Signature of Preparer (optional)

Section 2. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Registry #</th>
<th>wt. %</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Oxide (AS DRY DUST)</td>
<td>1344-28-1</td>
<td></td>
<td>10mg/m3</td>
</tr>
<tr>
<td>Deionized Water</td>
<td>7732-18-5</td>
<td></td>
<td>10mg/m3</td>
</tr>
</tbody>
</table>

Section 3. Hazards Identification

EMERGENCY OVERVIEW
Not listed as a carcinogen by IARC, NTP, or OSHA. May cause slight irritation to skin and eyes.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: Slightly irritating, high concentrations can cause conjunctivitis, not corrosive.

INHALATION: Spray mist or dry dust may cause congestion, coughing, granuloma in lungs.

SKIN CONTACT: Non-irritating to rabbit skin and non-sensitizing to guinea pig skin. Very low toxicity by absorption.

INGESTION: Very low toxicity.

Section 4. First Aid Measures

INHALATION: If inhaled, immediately remove the affected person to fresh air. Seek medical attention.

EYE CONTACT: In case of contact with eyes, rinse immediately with plenty of water for 15 minutes. If irritation persists, consult a physician.

SKIN CONTACT: Wash affected area with a waterless hand cleaner and/or soap and water. If irritation persists, consult a physician.

INGESTION: If material is swallowed, get immediate attention or advice. Give one to two glasses of water or milk.
Section 5. Fire Fighting Measures

FLAMMABLE PROPERTIES:
- FLASH POINT: N/A
- FLAMMABLE LIMITS: 
  - LFL: N/A
  - UFL: N/A
- Auto Ignition: N/A
- Method Used: N/A
- Flash Point: N/A
- Method Used: N/A

Flammability Classification: Non Flammable

FLASH POINT: N/A
FLASH POINT: N/A

RATE OF BURNING: N/A

FLASH POINT: N/A
FLASH POINT: N/A

PRODUCT IS NON-COMBUSTIBLE.

Hazardous Combustion Products: None

EXTINGUISHING MEDIA: Dry chemical foam, carbon dioxide (CO2), water fog.

FIRE FIGHTING INSTRUCTIONS: Firefighters should wear full-face self-contained breathing apparatus and impervious protective clothing. Firefighters should avoid inhaling any combustion products.

Section 6. Accidental Release Measures

Containment Procedures: Stop the flow of material, if this is without risk.

Clean-Up Procedures: Wear appropriate protective equipment/clothing. Absorb spill with inert material. Shovel material into appropriate container for disposal.


Special Procedures: No information available for the product.

Section 7. Handling and Storage

Handling Procedures: Avoid contact with skin and eyes. Observe good industrial hygiene practices and wash thoroughly after handling.

Technical Measures: Work practice should minimize contact.

Technical Precautions: Local exhaust is recommended.

Storage Procedures: Store in tightly closed original container in a cool, well-ventilated place away from incompatible materials. Keep from freezing.

Section 8. Exposure Controls / Personal Protection

ENGINEERING CONTROLS: Ventilation should effectively remove and prevent buildup of any vapor or mist generated from the handling of this product.

Personal Protective Equipment (PPE):
- Eyes/Face: Wear safety glasses, chemical goggles or a full-face shield.
- Skin: Use impervious gloves. Use of impervious apron and boots are recommended.
- Respiratory: If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors use appropriate NIOSH/MSHA respiratory protection.

Section 9. Physical and chemical Properties

<table>
<thead>
<tr>
<th>APPEARANCE:</th>
<th>Milky White</th>
<th>PHYSICAL STATE:</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOILING POINT:</td>
<td>100 deg C/212 degF</td>
<td>SOLUBILITY IN WATER:</td>
<td>Dispersible</td>
</tr>
<tr>
<td>MELTING POINT:</td>
<td>0 c/32f</td>
<td>VISCOSITY:</td>
<td>Medium</td>
</tr>
<tr>
<td>ODOR:</td>
<td>None</td>
<td>pH:</td>
<td>7-8</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

CHEMICAL STABILITY: This is a stable material

INCOMPATIBILITY: None specific

HAZARDOUS DECOMPOSITION PRODUCTS: None specific

CONDITIONS TO AVOID: None specific.
Section 11. Toxicological Information

EYE CONTACT: May cause temporary eye irritation

SKIN CONTACT: Prolonged contact may cause redness and irritation

INGESTION : No harmful effects expected in amounts likely to be ingested by accident

INHALATION : Not relevant at normal room temperatures

Section 12. Ecological Information

ECOTOXICITY : This product is not expected to be hazardous to the environment

MOBILITY : This product is water soluble and may spread in water systems

DEGRADABILITY : The degradability of the product has not been stated

Section 13. Disposal Considerations

US EPA Waste Number and Descriptions:

General Product Information: Wastes must be tested using methods described in 40CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

Component Waste Numbers: No EPA Waste Numbers are applicable for this product’s components.

Disposal Instructions:

Waste Material: Dispose of waste material according to federal, state, and/or local regulations.

Contaminated Packaging: Dispose of contaminated packaging as residue.

Section 14. Transport Information (Not meant to be all inclusive)

D.O.T. SHIPPING NAME : N/A
TECHNICAL SHIPPING NAME: N/A
D.O.T. HAZARD CLASS : N/A
U.N. / N.A. NUMBER : N/A
PRODUCT RQ (LBS) : N/A
D.O.T. LABEL : N/A
D.O.T. PLACARD : N/A
FREIGHT CLASS BULK : N/A
FREIGHT CLASS PACKAGE : N/A
PRODUCT LABEL : AS1 ~ AS05~

Section 15. Regulatory Information (Not meant to be all inclusive - selected regulation represented)

OSHA STATUS: NONE
TSCA STATUS: NONE
CERCLA REPORTABLE QUANTITY: NONE
SARA TITLE III:

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: N/A
SECTION 311/312 HAZARDOUS CATEGORIES: N/A
SECTION 313 TOXIC CHEMICALS: N/A
RCRA STATUS: N/A
CALIFORNIA PROPOSITION 65: N/A

Section 16. Other Information

MSDS STATUS:

NOTE: The information on this data sheet represents our current data and best opinion as to the proper use in handling of this product under normal conditions. Any use of the product which is not in conformance with this Data Sheet or which involves using the product in combination with any other product or any other process is the responsibility of the user.