1 Identification

- **Product name:** Diamond Slurry, Alcohol-Based, All Microns
- **Part number:** 90-3AB0.25 - 90-3AB9
- **Application of the substance / the mixture** Polishing solution
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    Allied High Tech Products Inc.
    2376 East Pacifica Place
    USA-RANCHO DOMINGUEZ, CA 90220
    USA
    info@alliedhihtech.com
- **Information department:** Product safety department
- **Emergency telephone number:**
  - During normal opening times: +1 (310) 635-2466
  - Chemtrec: +1 (202) 483-7616

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - GHS02 Flame
  - Flam. Liq. 2 H225 Highly flammable liquid and vapor.
  - GHS07
  - Eye Irrit. 2A H319 Causes serious eye irritation.

- **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**
  - GHS02
  - GHS07

- **Signal word** Danger
- **Hazard statements**
  - Highly flammable liquid and vapor.
  - Causes serious eye irritation.
- **Precautionary statements**
  - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - Keep container tightly closed.
Product name: Diamond Slurry, Alcohol-Based, All Microns

Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· Classification system:
· NFPA ratings (scale 0 - 4)

- Health = 2
- Fire = 3
- Reactivity = 0

· HMIS-ratings (scale 0 - 4)

- Health = 2
- Fire = 3
- Reactivity = 0

· Other hazards
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures
· Description: Mixture of the substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>Hazardous Components:</th>
<th>Non-hazardous Components:</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5 ethyl alcohol</td>
<td>7782-40-3 Diamond</td>
</tr>
<tr>
<td>Flam. Liq. 2, H225</td>
<td>41</td>
</tr>
<tr>
<td>67-63-0 isopropyl alcohol</td>
<td>Acute Tox. 4, H302</td>
</tr>
<tr>
<td>Flam. Liq. 2, H225; Eye Irrit. 2A, H319; STOT SE 3, H336</td>
<td>1-10%</td>
</tr>
<tr>
<td>57-55-6 propylene glycol</td>
<td>61-10%</td>
</tr>
<tr>
<td>Acute Tox. 4, H302</td>
<td>50-100%</td>
</tr>
</tbody>
</table>

· Additional information: The specific chemical identity and/or exact percentage of the composition has been withheld as a trade secret.

4 First-aid measures

· Description of first aid measures
· General information: Immediately remove any clothing soiled by the product.
· After inhalation: Supply fresh air; consult doctor in case of complaints.
· After skin contact: Immediately rinse with water.
· After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· After swallowing: If symptoms persist consult doctor.
· Information for doctor:
· Most important symptoms and effects, both acute and delayed
  Headache
  Coughing
  Nausea
  Dizziness
  Disorientation
  Unconsciousness
Product name: Diamond Slurry, Alcohol-Based, All Microns

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Wear protective equipment. Keep unprotected persons away.
- Environmental precautions:
  - Do not allow product to reach sewage system or any water course.
  - Do not allow to enter sewers/ surface or ground water.
  - Prevent seepage into sewage system, workpits and cellars.
  - Dilute with plenty of water.
- Methods and material for containment and cleaning up:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.
- Reference to other sections
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.
- Protective Action Criteria for Chemicals

<table>
<thead>
<tr>
<th>PAC-1</th>
<th>64-17-5 ethyl alcohol</th>
<th>1,800 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>67-63-0 isopropyl alcohol</td>
<td>400 ppm</td>
</tr>
<tr>
<td></td>
<td>57-55-6 propylene glycol</td>
<td>30 mg/m³</td>
</tr>
<tr>
<td></td>
<td>7782-40-3 Diamond</td>
<td>6.3 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAC-2</th>
<th>64-17-5 ethyl alcohol</th>
<th>3,300* ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>67-63-0 isopropyl alcohol</td>
<td>2,000* ppm</td>
</tr>
<tr>
<td></td>
<td>57-55-6 propylene glycol</td>
<td>1,300 mg/m³</td>
</tr>
<tr>
<td></td>
<td>7782-40-3 Diamond</td>
<td>69 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAC-3</th>
<th>64-17-5 ethyl alcohol</th>
<th>15,000* ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>67-63-0 isopropyl alcohol</td>
<td>12,000* ppm</td>
</tr>
<tr>
<td></td>
<td>57-55-6 propylene glycol</td>
<td>7,900 mg/m³</td>
</tr>
<tr>
<td></td>
<td>7782-40-3 Diamond</td>
<td>1,100 mg/m³</td>
</tr>
</tbody>
</table>

7 Handling and storage

- Handling:
- Precautions for safe handling: No special precautions are necessary if used correctly.
- Information about protection against explosions and fires:
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.

(Contd. on page 2)
Product name: Diamond Slurry, Alcohol-Based, All Microns

- Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles:
    Store in a cool location.
    No special requirements.
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions:
    Keep receptacle tightly sealed.
    Store in cool, dry conditions in well sealed receptacles.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
  - Components with limit values that require monitoring at the workplace:
    64-17-5 ethyl alcohol
    PEL Long-term value: 1900 mg/m³, 1000 ppm
    REL Long-term value: 1900 mg/m³, 1000 ppm
    TLV Short-term value: 1880 mg/m³, 1000 ppm
    67-63-0 isopropyl alcohol
    PEL Long-term value: 980 mg/m³, 400 ppm
    REL Short-term value: 1225 mg/m³, 500 ppm
    Long-term value: 980 mg/m³, 400 ppm
    TLV Short-term value: 984 mg/m³, 400 ppm
    Long-term value: 492 mg/m³, 200 ppm
    BEI
    57-55-6 propylene glycol
    WEEL Long-term value: 10 mg/m³
  - Ingredients with biological limit values:
    67-63-0 isopropyl alcohol
    BEI 40 mg/L
    Medium: urine
    Time: end of shift at end of workweek
    Parameter: Acetone (background, nonspecific)

- Additional information: The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures:
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing.
    Wash hands before breaks and at the end of work.
    Avoid contact with the eyes.
    Avoid contact with the eyes and skin.
- Breathing equipment:
  Not required.
  Use suitable respiratory protective device in case of insufficient ventilation.
- Protection of hands:
  Protective gloves

(Contd. of page 5)
Product name: Diamond Slurry, Alcohol-Based, All Microns

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves** Butyl rubber, BR
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Tightly sealed goggles

### 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>· Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>· General Information</td>
</tr>
<tr>
<td>· Appearance:</td>
</tr>
<tr>
<td>Form: Suspension</td>
</tr>
<tr>
<td>Color: According to product specification</td>
</tr>
<tr>
<td>Odor: Alcohol-like</td>
</tr>
<tr>
<td>Odor threshold: Not determined.</td>
</tr>
<tr>
<td>· pH-value: Not determined.</td>
</tr>
<tr>
<td>· Change in condition</td>
</tr>
<tr>
<td>Melting point/Melting range: Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range: 78 °C (172.4 °F)</td>
</tr>
<tr>
<td>· Flash point: 10 °C (50 °F)</td>
</tr>
<tr>
<td>· Flammability (solid, gaseous): Not applicable.</td>
</tr>
<tr>
<td>· Ignition temperature: 425 °C (797 °F)</td>
</tr>
<tr>
<td>· Decomposition temperature: Not determined.</td>
</tr>
<tr>
<td>· Auto igniting: Product is not selfigniting.</td>
</tr>
<tr>
<td>· Danger of explosion: Product is not explosive.</td>
</tr>
<tr>
<td>However, formation of explosive air/vapor mixtures</td>
</tr>
<tr>
<td>are possible.</td>
</tr>
<tr>
<td>· Explosion limits:</td>
</tr>
<tr>
<td>Lower: 3.5 Vol %</td>
</tr>
<tr>
<td>Upper: 15 Vol %</td>
</tr>
<tr>
<td>· Vapor pressure at 20 °C (68 °F): 59 hPa (44.3 mm Hg)</td>
</tr>
<tr>
<td>· Density: Not determined.</td>
</tr>
<tr>
<td>· Relative density: Not determined.</td>
</tr>
<tr>
<td>· Vapor density: 1.5 (air =1)</td>
</tr>
<tr>
<td>· Specific gravity: 0.8 (water = 1)</td>
</tr>
<tr>
<td>· Evaporation rate: Not determined.</td>
</tr>
<tr>
<td>· Solubility in / Miscibility with Water: Not miscible</td>
</tr>
<tr>
<td>or difficult to mix.</td>
</tr>
<tr>
<td>· Partition coefficient (n-octanol/water): Not</td>
</tr>
<tr>
<td>determined.</td>
</tr>
<tr>
<td>· Viscosity:</td>
</tr>
<tr>
<td>Dynamic: Not determined.</td>
</tr>
<tr>
<td>Kinematic: Not determined.</td>
</tr>
<tr>
<td>· Solvent content:</td>
</tr>
<tr>
<td>Organic solvents: 99.1 %</td>
</tr>
</tbody>
</table>

(Contd. on page 6)
Product name: Diamond Slurry, Alcohol-Based, All Microns

| VOC content:       | 99.14 %          |
|                   | 991.4 g/l / 8.27 lb/gal |
| Solids content:   | 0.9 %            |
| Other information | No further relevant information available. |

### 10 Stability and reactivity

- **Reactivity**: No further relevant information available.
- **Chemical stability**: No decomposition if used according to specifications.
- **Thermal decomposition / conditions to be avoided**: No decomposition if used according to specifications.
- **Possibility of hazardous reactions**: No dangerous reactions known.
- **Conditions to avoid**:
  - Keep away from oxidising agents and acidic substances.
  - Keep away from heat.
  - Keep away from sources of ignition - No smoking.
- **Incompatible materials**: No further relevant information available.
- **Hazardous decomposition products**: Carbon monoxide and carbon dioxide.
- **Additional information**: Hazardous decomposition products may form during combustion.

### 11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity**:
    - **LD/LC50 values that are relevant for classification**:
      - **ATE (Acute Toxicity Estimate)**
        - Oral LD50 23,200 mg/kg (rat)
        - Inhalative LC50/4 h 232 mg/l (rat)
- **64-17-5 ethyl alcohol**
  - Oral LD50 7,060 mg/kg (rat)
  - Dermal LD50 15,800 mg/kg (rabbit)
  - Inhalative LC50/4 h 20,000 mg/l (rat)
- **67-63-0 isopropyl alcohol**
  - Oral LD50 5,045 mg/kg (rat)
  - Dermal LD50 12,800 mg/kg (rabbit)
  - Inhalative LC50/4 h 30 mg/l (rat)
- **57-55-6 propylene glycol**
  - Oral LD50 2,000 mg/kg (rat)
  - Dermal LD50 20,800 mg/kg (rabbit)
- **Primary chemical irritant effect**:
  - **on the skin**: No irritant effect.
  - **on the eye**: Irritating effect.
  - **Sensitization**: No sensitizing effects known.
- **Additional toxicological information**: Abrasive eye irritant.
- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
    - 64-17-5 ethyl alcohol 1
    - 67-63-0 isopropyl alcohol 3
- **NTP (National Toxicology Program)**
  - None of the ingredients is listed.
Product name: Diamond Slurry, Alcohol-Based, All Microns

- OSHA-Ca (Occupational Safety & Health Administration)
  None of the ingredients is listed.

12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
- General notes:
  Water hazard class 1 (Self-assessment): slightly hazardous for water
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation: Contact waste processors for recycling information.

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  DOT, IMDG, IATA UN1987

- UN proper shipping name
  - DOT
  - IMDG
  - IATA
  Alcohols, n.o.s. (Ethanol, Isopropanol)
  IMDG
  - IATA
  ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL))
  IATA
  ALCOHOLS, N.O.S. (ETHANOL, ISOPROPANOL (ISOPROPYL ALCOHOL))

- Transport hazard class(es)

  DOT
  - Class
  - Label
  3 Flammable liquids
  3

  IMDG, IATA
  - Class
  - Label
  3 Flammable liquids
  3
Product name: Diamond Slurry, Alcohol-Based, All Microns

<table>
<thead>
<tr>
<th>· Packing group</th>
<th>II</th>
</tr>
</thead>
<tbody>
<tr>
<td>· DOT, IMDG, IATA</td>
<td></td>
</tr>
<tr>
<td>· Environmental hazards:</td>
<td></td>
</tr>
<tr>
<td>· Marine pollutant:</td>
<td>No</td>
</tr>
<tr>
<td>· Special precautions for user</td>
<td></td>
</tr>
<tr>
<td>· Hazard identification number (Kemler code):</td>
<td>Warning: Flammable liquids</td>
</tr>
<tr>
<td>· EMS Number:</td>
<td>F-E,S-D</td>
</tr>
<tr>
<td>· Stowage Category</td>
<td>B</td>
</tr>
<tr>
<td>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>· Transport/Additional information:</th>
</tr>
</thead>
<tbody>
<tr>
<td>· DOT</td>
</tr>
<tr>
<td>· Quantity limitations</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>· Limited quantities (LQ)</td>
</tr>
<tr>
<td>· Transport category</td>
</tr>
<tr>
<td>· Tunnel restriction code</td>
</tr>
<tr>
<td>· IMDG</td>
</tr>
<tr>
<td>· Limited quantities (LQ)</td>
</tr>
<tr>
<td>· Exempted quantities (EQ)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>· UN &quot;Model Regulation&quot;:</td>
</tr>
</tbody>
</table>

**15 Regulatory information**

· Safety, health and environmental regulations/legislation specific for the substance or mixture
  · Sara

  · Section 355 (extremely hazardous substances):
    None of the ingredients is listed.

  · Section 313 (Specific toxic chemical listings):
    67-65-0 | isopropyl alcohol

  · TSCA (Toxic Substances Control Act):
    All components have the value ACTIVE.

· Hazardous Air Pollutants
  None of the ingredients is listed.

· Proposition 65

  · Chemicals known to cause cancer:
    None of the ingredients is listed.

  · Chemicals known to cause reproductive toxicity for females:
    None of the ingredients is listed.

  · Chemicals known to cause reproductive toxicity for males:
    None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:
  64-17-5 | ethyl alcohol

(Contd. on page 9)
Product name: Diamond Slurry, Alcohol-Based, All Microns

· Carcinogenic categories
  · EPA (Environmental Protection Agency)
    None of the ingredients is listed.
  · TLV (Threshold Limit Value established by ACGIH)
    64-17-5 ethyl alcohol A3
    67-63-0 isopropyl alcohol A4
  · NIOSH-Ca (National Institute for Occupational Safety and Health)
    None of the ingredients is listed.
  · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Environment protection department.
· Contact: Kim Dermit
· Last revision: 04/30/2020 / 3.0
· Abbreviations and acronyms:
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  VOC: Volatile Organic Compounds (USA, EU)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  NIOSH: National Institute for Occupational Safety
  OSHA: Occupational Safety & Health
  TLV: Threshold Limit Value
  REL: Recommended Exposure Limit
  BGI: Biological Exposure Limit
  Flam. Liq.: 2: Flammable liquids – Category 2
  Acute Tox.: 4: Acute toxicity – Category 4
  Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
  STOT SE 3: Specific target organ toxicity (single exposure) – Category 3