1 Identification

· Product name: Diamond Slurry, Polycrystalline, 0.05 and 0.1 microns
· Part number: 90-22995-S - 90-23000-S
· 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@alliedhightech.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

  Acute Tox. 4 H332 Harmful if inhaled.
  Skin Sens. 1 H317 May cause an allergic skin reaction.
  Flam. Liq. 4 H227 Combustible liquid.

· Label elements
  · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
  · Hazard pictograms

· Signal word Warning

· Hazard-determining components of labeling:
  · Fumed Silica, Crystalline Free
  · ethylene glycol monobutyl ether
  · mequinol
Product name: Diamond Slurry, Polycrystalline, 0.05 and 0.1 microns

- **Hazard statements**
  - Combustible liquid.
  - Harmful if inhaled.
  - May cause an allergic skin reaction.

- **Precautionary statements**
  - Keep away from flames and hot surfaces. – No smoking.
  - Avoid breathing dust/fume/gas/mist/vapors/spray
  - Use only outdoors or in a well-ventilated area.
  - Contaminated work clothing must not be allowed out of the workplace.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - If on skin: Wash with plenty of water.
  - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
  - Call a poison center/doctor if you feel unwell.
  - Specific treatment (see on this label).
  - If skin irritation or rash occurs: Get medical advice/attention.
  - Wash contaminated clothing before reuse.
  - 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 = 2
    - Reactivity = 0
  - **HMIS-ratings (scale 0 - 4)**
    - Health = 2
    - Fire = 2
    - 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.

#### Hazardous Components:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>112945-52-5 Fumed Silica, Crystalline Free</td>
<td>2.5-10%</td>
</tr>
<tr>
<td>111-76-2 ethylene glycol monobutyl ether</td>
<td>≤2.5%</td>
</tr>
<tr>
<td>150-76-5 mequinol</td>
<td>≤2.5%</td>
</tr>
</tbody>
</table>

#### Non-hazardous Components:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>9038-95-3 polyalkylene glycol monobutyl ether</td>
<td>50-100%</td>
</tr>
<tr>
<td>7782-40-3 Diamond</td>
<td>≤2.5%</td>
</tr>
</tbody>
</table>
4 First-aid measures

· Description of first aid measures
· General information:
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· After inhalation:
  Supply fresh air and to be sure call for a doctor.
  In case of unconsciousness place patient stably in side position for transportation.
· After skin contact:
  Immediately wash with water and soap and rinse thoroughly.
· After eye contact:
  Rinse opened eye for several minutes under running water.
· After swallowing:
  If symptoms persist consult doctor.
· Information for doctor:
  Most important symptoms and effects, both acute and delayed
  Headache
  Coughing
  Gastric or intestinal disorders
  Nausea
· Indication of any immediate medical attention and special treatment needed
  No further relevant information available.

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.
· Special hazards arising from the substance or mixture No further relevant information available.
· Advice for firefighters
· Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
· Environmental precautions:
  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).
  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
  PAC-1:
  112945-52-5 Fund Silica, Crystalline Free 18 mg/m³
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.

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store in a cool location.
  - **Information about storage in one common storage facility:** Store away from oxidizing agents.
  - **Further information about storage conditions:**
    - Keep receptacle tightly sealed.
    - Store receptacle in a well ventilated area.
  - **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:**
    The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
    At this time, the remaining constituent has no known exposure limits.

### 111-76-2 ethylene glycol monobutyl ether

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
<td>Long-term value: 240 mg/m³, 50 ppm</td>
</tr>
<tr>
<td>REL</td>
<td>Long-term value: 24 mg/m³, 5 ppm</td>
</tr>
<tr>
<td>TLV</td>
<td>Long-term value: 97 mg/m³, 20 ppm</td>
</tr>
</tbody>
</table>

### 150-76-5 mequinol

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL</td>
<td>Long-term value: 5 mg/m³</td>
</tr>
<tr>
<td>TLV</td>
<td>Long-term value: 5 mg/m³</td>
</tr>
</tbody>
</table>
Product name: Diamond Slurry, Polycrystalline, 0.05 and 0.1 microns

Ingredients with biological limit values:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Substance</th>
<th>BEI</th>
<th>Medium</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>111-76-2</td>
<td>ethylene glycol monobutyl ether</td>
<td>200 mg/g</td>
<td>urine</td>
<td>Butoxyacetic acid with hydrolysis</td>
</tr>
</tbody>
</table>

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:
Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work.

Breathing equipment: Use suitable respiratory protective device when high concentrations are present.

Protection of hands:

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: Goggles recommended during refilling.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:
Form: Solution
Color: Yellowish
Odor: Mild
Odor threshold: Not determined

pH-value: Not determined

Change in condition
Melting point/Melting range: -9 °C (15.8 °F)
Boiling point/Boiling range: 171 °C (339.8 °F)

Flash point: 90 °C (194 °F)

Flammability (solid, gaseous): Not applicable.

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Not determined.

Explosion limits:
Lower: Not determined.
Upper: Not determined.
Product name: Diamond Slurry, Polycrystalline, 0.05 and 0.1 microns

10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid
  - Alkaline earth metals
  - Keep away from oxidising agents and acidic substances.
  - Excessive heat
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: Carbon monoxide and carbon dioxide
- Additional information: Hazard decompositions 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)
      - Inhalative: LC50/4 h >14.7 mg/l (rat)
    - 9038-95-3 polyalkylene glycol monobutyl ether
      - Dermal: LD50 >16,960 mg/kg (rabbit)
    - 112945-52-5 Fumed Silica, Crystalline Free
      - Oral: LD50 >5,110 mg/kg (rat)
      - Dermal: LD50 >5,000 mg/kg (rabbit)
      - Inhalative: LC50/4 h >0.691 mg/l (rat)
**Product name:** Diamond Slurry, Polycrystalline, 0.05 and 0.1 microns

### 111-76-2 ethylene glycol monobutyl ether

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1,480 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>400 mg/kg (rab)</td>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
<td>2.2 mg/l (rat)</td>
<td></td>
</tr>
</tbody>
</table>

### 150-76-5 mequinol

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1,600 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>2,010 mg/kg (rat)</td>
<td></td>
</tr>
</tbody>
</table>

- **Primary chemical irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** No irritating effect.
  - Sensitization: Sensitization possible through skin contact.

- **Additional toxicological information:**

- **Carcinogenic categories**
  - IARC (International Agency for Research on Cancer)
    - 111-76-2 ethylene glycol monobutyl ether: 3
  - NTP (National Toxicology Program)
    - None of the ingredients is listed.
  - 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, ADN, IMDG, IATA: not regulated

- **UN proper shipping name**
  - DOT, ADN, IMDG, IATA: not regulated

- **Transport hazard class(es)**
  - DOT, ADN, IMDG, IATA: Class not regulated

- **Packing group**
  - DOT, IMDG, IATA: not regulated

- **Environmental hazards:**
  - Marine pollutant: No

- **Special precautions for user**
  - Not applicable.

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
  - Not applicable.

- **UN "Model Regulation":**
  - not regulated

### 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):**
    - 111-76-2 ethylene glycol monobutyl ether

  - **TSCA (Toxic Substances Control Act):**
    - 9038-95-3 polyalkylene glycol monobutyl ether
    - 7782-40-3 Diamond
    - 111-76-2 ethylene glycol monobutyl ether
    - 130-76-5 mequinol

  - **TSCA new (21st Century Act) (Substances not listed)**
    - 112945-52-5 Fumed Silica, Crystalline Free
    - 7782-40-3 Diamond
    - Lubricant

  - **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.
47.0

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

· Carcinogenic categories

  · EPA (Environmental Protection Agency)
    111-76-2 ethylene glycol monobutyl ether NL

  · TLV (Threshold Limit Value established by ACGIH)
    111-76-2 ethylene glycol monobutyl ether A3

  · 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
· Date of preparation / last revision 06/14/2018 / -
· Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  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
  PEL: Permissible Exposure Limit
  REL: Recommended Exposure Limit
  BEI: Biological Exposure Limit
  Flam. Liq. 4: Flammable liquids – Category 4
  Acute Tox. 4: Acute toxicity – Category 4
  Acute Tox. 3: Acute toxicity – Category 3
  Skin Irrit. 2: Skin corrosion/irritation – Category 2
  Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
  Skin Sens. 1: Skin sensitisation – Category 1