1 Identification

- **Product name:** Colloidal Silica Suspension, Non-Crystallizing, 0.05 micron
- **Part number:** 180-20000, 180-20010, 180-20015
- **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** The product is not classified, according to the Globally Harmonized System (GHS).

3 Composition/information on ingredients

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

<table>
<thead>
<tr>
<th>Hazardous components and components with occupational exposure limits:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7631-86-9 silicon dioxide, chemically prepared</td>
<td>25-50%</td>
</tr>
<tr>
<td>57-55-6 propylene glycol</td>
<td>10-25%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-hazardous components:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5 water, distilled, conductivity or of similar purity</td>
<td>25-50%</td>
</tr>
<tr>
<td>Dye</td>
<td>≤1%</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:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
Product name: Colloidal Silica Suspension, Non-Crystallizing, 0.05 micron

- **After swallowing**: If symptoms persist consult doctor.
- **Information for doctor**: 
  Eye irritation
  Dermatitis
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

*5 Fire-fighting measures*

- **Extinguishing media**
- **Suitable extinguishing agents**:
  - Alcohol resistant foam
  - Carbon dioxide
  - Fire-extinguishing powder
  - Water spray
  - Use fire fighting measures that suit the environment.
- **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** Not required.
- **Environmental precautions**: 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).
- **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.

*7 Handling and storage*

- **Handling**
  - **Precautions for safe handling** No special measures required.
  - **Information about protection against explosions and fires**: No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
  - **Requirements to be met by storerooms and receptacles**: 
    - Use polyolefine receptacles.
    - Unsuitable material for receptacle: steel.
  - **Information about storage in one common storage facility**:
    - Store away from oxidizing agents.
    - Store away from foodstuffs.
- **Further information about storage conditions**: None.
- **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**:
    - | Component | Limit Value |
    - |--------|------------|
    - | PEL    | 6 mg/m³    |
    - | TLV    | 10 mg/m³   |

(Contd. of page 1)
Product name: Colloidal Silica Suspension, Non-Crystallizing, 0.05 micron

57-55-6 propylene glycol

| WEEL | Long-term value: 10 mg/m³ |

· Exposure controls
· Personal protective equipment:
· General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed.
· Breathing equipment:
  Not required.
  Use suitable respiratory protective device in case of insufficient ventilation.
· Protection of hands: Not required.
· Material of gloves
  Recommended thickness of the material: ≥ 0.4 mm mm
  Nitrile rubber, NBR
· Penetration time of glove material
  Break through time: >10 min.
  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: Suspension
    Color: Light blue
    Odor: Odorless
    Odor threshold: Not determined.
  · pH-value at 20 °C (68 °F): 9
  · Change in condition
    Melting point/Melting range: Undetermined.
    Boiling point/Boiling range: 100 °C (212 °F)
  · Flash point: Not applicable.
  · Flammability (solid, gaseous): Not applicable.
  · Decomposition temperature: Not determined.
  · Auto igniting: Product is not selfigniting.
  · Danger of explosion: Product does not present an explosion hazard.
  · Explosion limits:
    Lower: Not determined.
    Upper: Not determined.
  · Vapor pressure: Not determined.
  · Density at 20 °C (68 °F): 1.3 g/cm³ (10.849 lbs/gal)
  · Relative density: Not determined.
  · Vapor density: Not determined.
  · Evaporation rate: Not determined.
· Solubility in / Miscibility with
  Water: Fully miscible.
· Partition coefficient (n-octanol/water): Not determined.
· Viscosity:
  Dynamic: Not determined.
  Kinematic: Not determined.
Product name: Colloidal Silica Suspension, Non-Crystallizing, 0.05 micron

(Contd. of page 3)

<table>
<thead>
<tr>
<th>Solvent content:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic solvents:</td>
<td>13.5 %</td>
<td></td>
</tr>
<tr>
<td>Water:</td>
<td>45.1 %</td>
<td></td>
</tr>
<tr>
<td>VOC content:</td>
<td>13.51 %</td>
<td></td>
</tr>
</tbody>
</table>

| Solids content:       | 40.5 %   |          |
| Other information     |          |          |

No further relevant information available.

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**: Freezing conditions
  - **Incompatible materials**: No further relevant information available.
  - **Hazardous decomposition products**: No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**:

<table>
<thead>
<tr>
<th>LD/LC50 values that are relevant for classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE (Acute Toxicity Estimate)</td>
</tr>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>LD50</td>
</tr>
<tr>
<td>&gt;5000 mg/kg (rat)</td>
</tr>
</tbody>
</table>

7631-86-9 silicon dioxide, chemically prepared

<table>
<thead>
<tr>
<th>Oral</th>
<th>Dermal</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>&gt;2,000 mg/kg (rat)</td>
</tr>
</tbody>
</table>

57-55-6 propylene glycol

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<thead>
<tr>
<th>Oral</th>
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</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>&gt;2,000 mg/kg (rat)</td>
</tr>
</tbody>
</table>

- **Primary chemical irritant effect**:
  - **on the skin**: No irritant effect.
  - **on the eye**: No irritating effect.
  - **Sensitization**: No sensitizing effects known.
- **Additional toxicological information**:
  - Abrasive eye irritant
  - Abrasive skin irritant
  - When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
    - 7631-86-9 silicon dioxide, chemically prepared: 3
  - **NTP (National Toxicology Program)**
    - None of the ingredients is listed.
  - **OSHA-Ca (Occupational Safety & Health Administration)**
    - None of the ingredients is listed.

(Contd. on page 5)
12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: Not easily biodegradable.
- 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.
  - Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

<table>
<thead>
<tr>
<th>Item</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN-Number</td>
<td>not regulated</td>
</tr>
<tr>
<td>DOT, IMDG, IATA</td>
<td>not regulated</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>not regulated</td>
</tr>
<tr>
<td>DOT, IMDG, IATA</td>
<td>not regulated</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>not regulated</td>
</tr>
<tr>
<td>DOT, ADN, IMDG, IATA</td>
<td>not regulated</td>
</tr>
<tr>
<td>Class</td>
<td>not regulated</td>
</tr>
<tr>
<td>Packing group</td>
<td>not regulated</td>
</tr>
<tr>
<td>DOT, IMDG, IATA</td>
<td>not regulated</td>
</tr>
<tr>
<td>Environmental hazards:</td>
<td>No</td>
</tr>
<tr>
<td>Marine pollutant:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>UN &quot;Model Regulation&quot;:</td>
<td>not regulated</td>
</tr>
</tbody>
</table>

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Section 355 (extremely hazardous substances):
    None of the ingredients is listed.
  - Section 313 (Specific toxic chemical listings):
    None of the ingredients is listed.
Product name: Colloidal Silica Suspension, Non-Crystallizing, 0.05 micron

· 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:
  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 / supersedes version: 06/10/2020 / 3.0
· Supersedes date: 04/30/2020
· Abbreviations and acronyms:
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  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)
  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
  OSHA: Occupational Safety & Health
  TLV: Threshold Limit Value
  PEL: Permissible Exposure Limit
  REL: Recommended Exposure Limit
· * Data compared to the previous version altered.