1 Identification

· Product name: PurpleLube Polishing Lubricant
· Part number: 90-204995, 90-205000, 90-205005, 90-205010
· Application of the substance / the mixture Lubricant
· 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@alliedhiightech.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 HA25 Highly flammable liquid and vapor.
  GHS07
  Eye Irrit. 2A H319 Causes serious eye irritation.
  STOT SE 3 H336 May cause drowsiness or dizziness.

· 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-determining components of labeling:
  isopropyl alcohol
· Hazard statements
  Highly flammable liquid and vapor.

(Contd. on page 2)
Product name: PurpleLube Polishing Lubricant

Causes serious eye irritation.
May cause drowsiness or dizziness.

· Precautionary statements
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
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 INHALED: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a poison center/doctor if you feel unwell.
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 container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.
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>Description</th>
<th>1st aid</th>
<th>2nd aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5 ethyl alcohol</td>
<td>Fl. Liq. 2, H225</td>
<td>50-100%</td>
<td></td>
</tr>
<tr>
<td>57-55-6 propylene glycol</td>
<td>Acute Tox. 4, H302</td>
<td>10-25%</td>
<td></td>
</tr>
<tr>
<td>67-63-0 isopropyl alcohol</td>
<td>Fl. Liq. 2, H225; Eye Irrit. 2A, H319; STOT SE 3, H336</td>
<td>≥10-~20%</td>
<td></td>
</tr>
</tbody>
</table>

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.
Product name: PurpleLube Polishing Lubricant

- Information for doctor:
  - Most important symptoms and effects, both acute and delayed
    Headache
    Coughing
    Gastric or intestinal disorders
    Nausea
    Dizziness
    Disorientation
    Unconsciousness
  - 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: 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 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.

### 7 Protective Action Criteria for Chemicals

- **PAC-1:**
  - 64-17-5 ethyl alcohol 1,800 ppm
  - 57-55-6 propylene glycol 30 mg/m³
  - 67-63-0 isopropyl alcohol 400 ppm

- **PAC-2:**
  - 64-17-5 ethyl alcohol 3300* ppm
  - 57-55-6 propylene glycol 1,300 mg/m³
  - 67-63-0 isopropyl alcohol 2000* ppm

- **PAC-3:**
  - 64-17-5 ethyl alcohol 15000* ppm
  - 57-55-6 propylene glycol 7,900 mg/m³
  - 67-63-0 isopropyl alcohol 12000** ppm

## 7 Handling and storage

- Handling:
  - Precautions for safe handling Prevent formation of aerosols.
  - Information about protection against explosions and fires:
    Keep ignition sources away - Do not smoke.
    Protect against electrostatic charges.
Product name: PurpleLube Polishing Lubricant

· 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.
    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

<table>
<thead>
<tr>
<th>Components with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5 ethyl alcohol</td>
</tr>
<tr>
<td>PEL</td>
</tr>
<tr>
<td>REL</td>
</tr>
<tr>
<td>TLV</td>
</tr>
<tr>
<td>57-55-6 propylene glycol</td>
</tr>
<tr>
<td>WEEL</td>
</tr>
<tr>
<td>67-63-0 isopropyl alcohol</td>
</tr>
<tr>
<td>PEL</td>
</tr>
<tr>
<td>REL</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>TLV</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>86-52-4 butanol</td>
</tr>
<tr>
<td>PEL</td>
</tr>
<tr>
<td>REL</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>TLV</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>86-88-4 acetone</td>
</tr>
<tr>
<td>PEL</td>
</tr>
<tr>
<td>REL</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>TLV</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>86-88-4 acetone</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:
  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: Use suitable respiratory protective device when high concentrations are present.

· Protection of hands:

  Protective gloves

  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Product name: PurpleLube Polishing Lubricant

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

| · Information on basic physical and chemical properties | |
| · General Information | |
| · Appearance: | |
| Form: Liquid | |
| Color: Violet | |
| Odor: Alcohol-like | |
| Odor threshold: Not determined. | |
| · pH-value: Not determined. | |
| · Change in condition | |
| Melting point/Melting range: Undetermined. | |
| Boiling point/Boiling range: 78 °C (172.4 °F) | |
| · Flash point: 10 °C (50 °F) | |
| · Flammability (solid, gaseous): Not applicable. | |
| · Ignition temperature: 425 °C (797 °F) | |
| · Decomposition temperature: Not determined. | |
| · Auto igniting: Product is not selfigniting. | |
| · Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible. | |
| · Explosion limits: | |
| Lower: 3.5 Vol % | |
| Upper: 15 Vol % | |
| · Vapor pressure at 20 °C (68 °F): 59 hPa (44.3 mm Hg) | |
| · Density at 20 °C (68 °F): 0.82618 g/cm³ (6.89447 lbs/gal) | |
| · Relative density Not determined. | |
| · Vapor density 1.5 | |
| · Specific gravity: 0.8 (Water = 1) | |
| · 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. | |
| · Solvent content: Organic solvents: 100.0 % | |
| VOC content: 100.00 % | |
| 826.2 g/l / 6.89 lb/gal | |
Product name: PurpleLube Polishing Lubricant

(Contd. of page 5)

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
  Keep away from heat.
  Keep away from oxidising agents and acidic substances.
  Keep away from open flames. - 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:

<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 13,333 mg/kg (rat)</td>
</tr>
<tr>
<td>Inhalative</td>
</tr>
<tr>
<td>LC50/4 h 200 mg/l (rat)</td>
</tr>
</tbody>
</table>

64-17-5 ethyl alcohol

<table>
<thead>
<tr>
<th>Oral</th>
<th>LD50 7,060 mg/kg (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>LD50 15,800 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4 h 20,000 mg/l (rat)</td>
</tr>
</tbody>
</table>

57-55-6 propylene glycol

<table>
<thead>
<tr>
<th>Oral</th>
<th>LD50 2,000 mg/kg (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>LD50 20,800 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

67-63-0 isopropyl alcohol

<table>
<thead>
<tr>
<th>Oral</th>
<th>LD50 5,045 mg/kg (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>LD50 12,800 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4 h 30 mg/l (rat)</td>
</tr>
</tbody>
</table>

- Primary chemical irritant effect:
  - on the skin: No irritant effect.
  - on the eye: Irritating effect.
  - Sensitization: No sensitizing effects known.
- Additional toxicological information:
  Specific Target Organ Toxicity - Single Exposure 3 - Target Organ: central nervous system depression

- Carcinogenic categories

<table>
<thead>
<tr>
<th>IARC (International Agency for Research on Cancer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5 ethyl alcohol</td>
</tr>
<tr>
<td>67-63-0 isopropyl alcohol</td>
</tr>
</tbody>
</table>

- 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 7)
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.
  - Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

<table>
<thead>
<tr>
<th>UN-Number</th>
<th>DOT, IMDG, IATA</th>
<th>UN1987</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>DOT</td>
<td>Alcohols, n.o.s. (Ethanol, Isopropanol)</td>
</tr>
<tr>
<td></td>
<td>IMDG</td>
<td>ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL))</td>
</tr>
<tr>
<td></td>
<td>IATA</td>
<td>ALCOHOLS, N.O.S. (ETHANOL, ISOPROPANOL (ISOPROPYL ALCOHOL))</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transport hazard class(es)</th>
<th>DOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>3 Flammable liquids</td>
</tr>
<tr>
<td>Label</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMDG, IATA</th>
<th>DOT, IMDG, IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>3 Flammable liquids</td>
</tr>
<tr>
<td>Label</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Packing group</th>
<th>DOT, IMDG, IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>II</td>
</tr>
</tbody>
</table>
Product name: PurpleLube Polishing Lubricant

- Environmental hazards: No
- Marine pollutant: No
- Special precautions for use: Warning: Flammable liquids
- Hazard identification number (Kemler code): 33
- EMS Number: F-E-S-D
- Stowage Category: B
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

Transport/Additional information:
- DOT
  - Quantity limitations: On passenger aircraft/rail: 5 L
    On cargo aircraft only: 60 L
  - Limited quantities (LQ): 1L
  - Transport category: 2
  - Tunnel restriction code: D/E
- IMDG
  - Limited quantities (LQ): 1L
  - Excepted quantities (EQ): Code: E2
    Maximum net quantity per inner packaging: 30 ml
    Maximum net quantity per outer packaging: 500 ml
- UN "Model Regulation": UN 1987 ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL)), 3, II

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):
  - 67-63-0 | 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
- Carcinogenic categories
  - EPA (Environmental Protection Agency)
    - None of the ingredients is listed.
Product name: PurpleLube Polishing Lubricant

- **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:** 05/01/2020 / 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
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
  - BEI: 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