1 Identification

· Product name: BlueLube Polishing Lubricant
· Part number: 90-205995 - 90-206010
· 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. 3 H226 Flammable liquid and vapor.
  GHS08 Health hazard
  Care. 2 H351 Suspected of causing cancer.
  STOT SE 2 H371 May cause damage to the central nervous system and the eyes.
  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 GHS08

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

· Signal word Warning

· Hazard-determining components of labeling:
  isopropyl alcohol
  methyl isobutyl ketone
  methyl alcohol

· Hazard statements
  Flammable liquid and vapor.
  Causes serious eye irritation.
  Suspected of causing cancer.
  May cause damage to the central nervous system and the eyes.

· Precautionary statements
  Obtain special instructions before use.
  Do not handle until all safety precautions have been read and understood.
  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  Keep container tightly closed.
  Ground/bond container and receiving equipment.
  Use explosion-proof electrical/ventilating/lighting/equipment.
  Use only non-sparking tools.
  Take precautionary measures against static discharge.
  Do not breathe dust/fume/gas/mist/vapors/spray.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  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 exposed or concerned: Get medical advice/attention.
  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.
  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 Health = *2
  FIRE 3 Fire = 3
  REACTIVITY 0 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>50-100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5</td>
<td>ethyl alcohol</td>
</tr>
<tr>
<td></td>
<td>Flam. Liq. 2, H225</td>
</tr>
</tbody>
</table>

(Contd. of page 3)
Product name: BlueLube Polishing Lubricant

| 67-63-0 | isopropyl alcohol | ≥20-≤25% |
| 57-55-6 | propylene glycol | 10-25% |
| 67-56-1 | methyl alcohol | ≥3-<10% |
| 108-10-1 | methyl isobutyl ketone | ≥1-<10% |
| 7732-18-5 | water, distilled, conductivity or of similar purity | 1-10% |

Non-hazardous Components:

- Additional information: Water is a byproduct of ethyl alcohol and is naturally occurring in this product.

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
    - Nausea
    - Unconsciousness
    - Headache
    - Dizziness
  - 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.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture: During heating or in case of fire poisonous gases are produced.
- Advice for firefighters
  - Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  - Mount respiratory protective device.
  - 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.
Product name: BlueLube Polishing Lubricant

· Protective Action Criteria for Chemicals

<table>
<thead>
<tr>
<th>PAC-1</th>
<th>PAC-2</th>
<th>PAC-3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ethyl alcohol</td>
<td>1,800 ppm</td>
</tr>
<tr>
<td>64-17-5</td>
<td>isopropyl alcohol</td>
<td>400 ppm</td>
</tr>
<tr>
<td>67-63-0</td>
<td>propylene glycol</td>
<td>30 mg/m³</td>
</tr>
<tr>
<td>57-55-6</td>
<td>methyl alcohol</td>
<td>530 ppm</td>
</tr>
<tr>
<td>67-56-1</td>
<td>methyl isobutyl ketone</td>
<td>75 ppm</td>
</tr>
<tr>
<td>108-10-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ethyl alcohol</td>
<td>3300* ppm</td>
</tr>
<tr>
<td>64-17-5</td>
<td>isopropyl alcohol</td>
<td>2000* ppm</td>
</tr>
<tr>
<td>67-63-0</td>
<td>propylene glycol</td>
<td>1,300 mg/m³</td>
</tr>
<tr>
<td>57-55-6</td>
<td>methyl alcohol</td>
<td>2,100 ppm</td>
</tr>
<tr>
<td>67-56-1</td>
<td>methyl isobutyl ketone</td>
<td>500 ppm</td>
</tr>
<tr>
<td>108-10-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ethyl alcohol</td>
<td>15000* ppm</td>
</tr>
<tr>
<td>64-17-5</td>
<td>isopropyl alcohol</td>
<td>12000** ppm</td>
</tr>
<tr>
<td>67-63-0</td>
<td>propylene glycol</td>
<td>7,900 mg/m³</td>
</tr>
<tr>
<td>57-55-6</td>
<td>methyl alcohol</td>
<td>7200* ppm</td>
</tr>
<tr>
<td>67-56-1</td>
<td>methyl isobutyl ketone</td>
<td>3000* ppm</td>
</tr>
<tr>
<td>108-10-1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7 Handling and storage

· Handling:
  · Precautions for safe handling
    Open and handle receptacle with care.
    Prevent formation of aerosols.
  · Information about protection against explosions and fires:
    Keep ignition sources away - Do not smoke.
    Protect against electrostatic charges.
    Keep respiratory protective device available.
  · 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 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:
    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
Product name: BlueLube Polishing Lubricant

<table>
<thead>
<tr>
<th>67-63-0 isopropyl alcohol</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
<td>Long-term value: 980 mg/m³, 400 ppm</td>
</tr>
</tbody>
</table>
| 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                                        |

<table>
<thead>
<tr>
<th>57-55-6 propylene glycol</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WEEL</td>
<td>Long-term value: 10 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>67-56-1 methyl alcohol</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
<td>Long-term value: 260 mg/m³, 200 ppm</td>
</tr>
</tbody>
</table>
| REL                        | Short-term value: 325 mg/m³, 250 ppm  
                             | Long-term value: 260 mg/m³, 200 ppm  |
|                           | Skin                                       |
| TLV                        | Short-term value: 328 mg/m³, 250 ppm  
                             | Long-term value: 262 mg/m³, 200 ppm  |
|                           | Skin; BEI                                   |

<table>
<thead>
<tr>
<th>108-10-1 methyl isobutyl ketone</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
<td>Long-term value: 410 mg/m³, 100 ppm</td>
</tr>
</tbody>
</table>
| REL                            | Short-term value: 300 mg/m³, 75 ppm  
                             | Long-term value: 205 mg/m³, 50 ppm  |
|                              | Long-term value: 307 mg/m³, 75 ppm  |
|                              | Long-term value: 82 mg/m³, 20 ppm  |
|                              | BEI                                        |

- **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) |
  - **67-56-1 methyl alcohol**
    | BeI | 15 mg/L |
    |     | Medium: urine |
    |     | Time: end of shift |
    |     | Parameter: Methanol (background, nonspecific) |
  - **108-10-1 methyl isobutyl ketone**
    | BeI | 1 mg/L |
    |     | Medium: urine |
    |     | Time: end of shift |
    |     | Parameter: MIBK |

- **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.
    Store protective clothing separately.
    Avoid contact with the eyes.
    Avoid contact with the eyes and skin.
  - **Breathing equipment:** Use suitable respiratory protective device when high concentrations are present.

(Contd. on page 6)
Product name: BlueLube Polishing Lubricant

· Protection of hands:
  
  Protective gloves

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: Liquid</td>
</tr>
<tr>
<td>Color: Blue</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>
</tbody>
</table>

| Change in condition                                   |
| Melting point/Melting range: Undetermined.            |
| Boiling point/Boiling range: 78 °C (172.4 °F)         |

| Flash point: 27 °C (80.6 °F) (Pensky-Martens Closed Cup) |
| Flammability (solid, gaseous): Not applicable.          |
| Ignition temperature: 371 °C (699.8 °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: 2 Vol %                                        |
| Upper: 15 Vol %                                       |

| Vapor pressure at 20 °C (68 °F): 67 hPa (50.3 mm Hg) |
| Density at 20 °C (68 °F): 0.82575 g/cm³ (6.89088 lbs/gal) |
| Relative density: Not determined.                     |
| Vapor density at 20 °C (68 °F): 1.5 (Air=1)           |
| Specific gravity: 0.8 (Water = 1)                     |
| Evaporation rate: Not determined.                     |

| Solubility in / Miscibility with                      |
| Water: Not miscible or difficult to mix.             |
| Partition coefficient (n-octanol/water): Not determined. |

| Viscosity:                                            |
| Dynamic: Not determined.                             |
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 open flames. - No smoking.
  - Keep away from heat.
  - Keep away from oxidising agents and acidic substances.
· 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  2,168 mg/kg
    Dermal LD50  7,792 mg/kg
    Inhalative LC50/4 h  39.7-43.8 mg/l

    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)

    67-56-1 methyl alcohol

    Oral  LD50  100 mg/kg (ATE)
    Dermal LD50  300 mg/kg (ATE)
    Inhalative LC50/4 h  3 mg/l (ATE)

    108-10-1 methyl isobutyl ketone

    Oral  LD50  2,080 mg/kg (rat)
    Dermal LD50  16,000 mg/kg (rabbit)
    Inhalative LC50/4 h  8.3-16.6 mg/l (rat)
Product name: BlueLube Polishing Lubricant

· Primary chemical irritant effect:
  · on the skin: No irritant effect.
  · on the eye: Irritating effect.
· Sensitization: No sensitizing effects known.
· Additional toxicological information:

Genotoxicity

· Carcinogenic categories
  · IARC (International Agency for Research on Cancer)
    - 64-17-5 ethyl alcohol
    - 67-63-0 isopropyl alcohol
    - 108-10-1 methyl isobutyl ketone
  · 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, IMDG, IATA UN1987
· UN proper shipping name
  · DOT Alcohols, n.o.s. (Ethanol, Isopropanol)
  · IMDG ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL))
  · IATA ALCOHOLS, N.O.S. (ETHANOL, ISOPROPANOL (ISOPROPYL ALCOHOL))

(Contd. on page 9)
Product name: BlueLube Polishing Lubricant

### Transport hazard class(es)
- DOT

#### IMDG, IATA
- Class Label: 3 Flammable liquids

#### Packing group
- DOT, IMDG, IATA: III

### Environmental hazards:
- Marine pollutant: No

#### Special precautions for user
- Warning: Flammable liquids

#### Hazard identification number (Kepler code):
- 30

#### EMS Number:
- F-E-S-D

#### Stowage Category
- A

#### 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: 60 L
    - On cargo aircraft only: 220 L
  - Limited quantities (LQ): 5L
  - Transport category: 3
  - Tunnel restriction code: D/E

- **IMDG**
  - Limited quantities (LQ): 5L
  - Excepted quantities (EQ): Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml

- **UN "Model Regulation"**:
  - UN 1987 ALCOHOLS, N.O.S. (ETHANOL (ETHYL ALCOHOL), ISOPROPANOL (ISOPROPYL ALCOHOL)), 3, III

### 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):
<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>isopropyl alcohol</td>
</tr>
<tr>
<td>67-56-1</td>
<td>methyl alcohol</td>
</tr>
</tbody>
</table>
Product name: BlueLube Polishing Lubricant

<table>
<thead>
<tr>
<th>108-10-1</th>
<th>methyl isobutyl ketone</th>
</tr>
</thead>
</table>

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

· Hazardous Air Pollutants
  67-56-1 methyl alcohol
  108-10-1 methyl isobutyl ketone

· Proposition 65
  · Chemicals known to cause cancer:
    108-10-1 methyl isobutyl ketone
  · 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
    67-56-1 methyl alcohol
    108-10-1 methyl isobutyl ketone

· Carcinogenic categories
  · EPA (Environmental Protection Agency)
    108-10-1 methyl isobutyl ketone
  · TLV (Threshold Limit Value established by ACGIH)
    64-17-5 ethyl alcohol
    67-63-0 isopropyl alcohol
  · 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 / 2.0

· 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
  BEE: Biological Exposure Limit
Product name: BlueLube Polishing Lubricant

- Flam. Liq. 2: Flammable liquids – Category 2
- Flam. Liq. 3: Flammable liquids – Category 3
- Acute Tox. 3: Acute toxicity – Category 3
- Acute Tox. 4: Acute toxicity – Category 4
- Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
- Carc. 2: Carcinogenicity – Category 2
- STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
- STOT SE 2: Specific target organ toxicity (single exposure) – Category 2
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3