1 Identification

· Product name: Mold Release Spray, PTFE Based
· Part number: 200-10006
· Application of the substance / the mixture: Releasing agent
· 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
  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
    GHS07
· Signal word Warning
· Hazard-determining components of labeling:
  isopropyl alcohol
· Hazard statements
  Causes serious eye irritation.
  May cause drowsiness or dizziness.

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Safety Data Sheet
acc. to OSHA HCS

Printing date 06/14/2018
Reviewed on 06/14/2018

Product name: Mold Release Spray, PTFE Based

· Precautionary statements
  Avoid breathing dust/fume/gas/mist/vapors/spray
  Wash thoroughly after handling.
  Use only outdoors or in a well-ventilated area.
  Wear eye protection / face protection.
  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.
  Store in a well-ventilated place. Keep container tightly closed.
  Store locked up.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

· Classification system:
  · NFPA ratings (scale 0 - 4)
    Health = 1
    Fire = 2
    Reactivity = 2
  · HMIS-ratings (scale 0 - 4)
    HEALTH Health = 1
    FIRE Fire = 2
    REACTIVITY Reactivity = 2

· 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:
  115-10-6 dimethyl ether
    Flam. Gas 1, H220; Press. Gas, H280
    25-50%
  811-97-2 1,1,1,2-tetrafluoroethane
    Acute Tox. 4, H302
    25-50%
  67-63-0 isopropyl alcohol
    Flam. Liq. 2, H225; Eye Irrit. 2A, H319; STOT SE 3, H336
    10-25%

4 First-aid measures

· Description of first aid measures
  · 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. If symptoms persist, consult a doctor.
  · After swallowing: If symptoms persist consult doctor.

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Safety Data Sheet
acc. to OSHA HCS

Product name: Mold Release Spray, PTFE Based

5 Fire-fighting measures

- Extinguishing media
  - Suitable extinguishing agents: 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: Do not allow to enter sewers/surface or ground water.
- Methods and material for containment and cleaning up:
  - 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></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>115-10-6</td>
<td>dimethyl ether</td>
<td>3,000 ppm</td>
</tr>
<tr>
<td>811-97-2</td>
<td>1,1,1,2-tetrafluoroethane</td>
<td>8,000 ppm</td>
</tr>
<tr>
<td>67-63-0</td>
<td>isopropyl alcohol</td>
<td>400 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAC-2</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>115-10-6</td>
<td>dimethyl ether</td>
<td>3800* ppm</td>
</tr>
<tr>
<td>811-97-2</td>
<td>1,1,1,2-tetrafluoroethane</td>
<td>13,000 ppm</td>
</tr>
<tr>
<td>67-63-0</td>
<td>isopropyl alcohol</td>
<td>2000* ppm</td>
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</table>

<table>
<thead>
<tr>
<th>PAC-3</th>
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</tr>
</thead>
<tbody>
<tr>
<td>115-10-6</td>
<td>dimethyl ether</td>
<td>7200* ppm</td>
</tr>
<tr>
<td>811-97-2</td>
<td>1,1,1,2-tetrafluoroethane</td>
<td>27,000 ppm</td>
</tr>
<tr>
<td>67-63-0</td>
<td>isopropyl alcohol</td>
<td>12000** ppm</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:
    - Do not spray on a naked flame or any incandescent material.

- Conditions for safe storage, including any incompatibilities

- Storage:
  - Requirements to be met by storerooms and receptacles:
    - Store at temperatures not exceeding 49°C.
8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.

- Control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>Limit Value</th>
<th>Medium</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>115-10-6 dimethyl ether</td>
<td>WEEL 1000 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>811-97-2 1,1,1,2-tetrafluoroethane</td>
<td>WEEL 1000 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>67-63-0 isopropyl alcohol</td>
<td>PEL 980 mg/m³, 400 ppm</td>
<td>REL 1225 mg/m³, 500 ppm</td>
<td>Long-term 980 mg/m³, 400 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Long-term 984 mg/m³, 400 ppm</td>
</tr>
</tbody>
</table>

- Ingredients with biological limit values:

<table>
<thead>
<tr>
<th>Component</th>
<th>BEI 40 mg/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0 isopropyl alcohol</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medium: urine</td>
</tr>
<tr>
<td></td>
<td>Time: end of shift at end of workweek</td>
</tr>
<tr>
<td></td>
<td>Parameter: Acetone (background, nonspecific)</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:

  Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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
Product name: Mold Release Spray, PTFE Based

- **Material of gloves**
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **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: Aerosol
  - Color: White
  **Odor:** Light
  **Odor threshold:** Not determined.
  **pH-value:** Not determined.

- **Change in condition**
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: Not applicable, as aerosol.

- **Flash point:** Not applicable, as aerosol.

- **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 at 20 °C (68 °F):** 5,066 hPa (3,799.8 mm Hg)

- **Density at 20 °C (68 °F):** 0.92283 g/cm³ (7.70102 lbs/gal)
  - Relative density: Not determined.
  - Vapor density: >1 (Air = 1)
  - Specific gravity at 20 °C (68 °F): 0.80
  - Evaporation rate: >1 (BuAc = 1)

- **Solubility in / Miscibility with Water:** Partly miscible.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**
  - Dynamic: Not determined.
47.0 Kinematic:
Not determined.

- Solvent content:
  - Organic solvents: 56.5 %
  - VOC content: 56.52 %
  - Solids content: 43.5 %
- 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
  - Keep away from oxidising agents and acidic substances.
  - Keep away from heat.
  - Keep away from open flames. - No smoking.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products:
  - Hydrogen fluoride
  - Carbon monoxide and carbon dioxide

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - LD/LC50 values that are relevant for classification:
    - 115-10-6 dimethyl ether
      Inhalative LC50/4 h 308 mg/l (rat)
    - 811-97-2 1,1,1,2-tetrafluoroethane
      Oral LD50 2,000 mg/kg (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)
- 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
  - IARC (International Agency for Research on Cancer)
    - 67-63-0 isopropyl alcohol
### 12 Ecological information

**Toxicity**

- **Aquatic toxicity:**
  - LC50 (96 h) 11,130 mg/l (pimephales promelas)

- **Persistence and degradability** Not easily biodegradable
- **Behavior in environmental systems:**
- **Bioaccumulative potential** May be accumulated in organism
- **Mobility in soil** 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 UN1950

- **UN proper shipping name**
  - DOT Aerosols, non-flammable
  - IMDG AEROSOLS
  - IATA AEROSOLS, non-flammable

- **Transport hazard class(es)**
  - DOT
    - Class 2.2
# Safety Data Sheet

**Product name:** Mold Release Spray, PTFE Based

<table>
<thead>
<tr>
<th>Label</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG, IATA</td>
<td></td>
</tr>
<tr>
<td>Class</td>
<td>2.2</td>
</tr>
<tr>
<td>Label</td>
<td>2</td>
</tr>
<tr>
<td>Packing group</td>
<td></td>
</tr>
<tr>
<td>DOT, IMDG, IATA</td>
<td>not regulated</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>Warning: Gases</td>
</tr>
<tr>
<td>Danger code (Kemler):</td>
<td>-</td>
</tr>
<tr>
<td>EMS Number:</td>
<td>F-D,S-U</td>
</tr>
<tr>
<td>Stowage Code</td>
<td>SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.</td>
</tr>
<tr>
<td>Segregation Code</td>
<td>SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow &quot;separated from&quot; class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.</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>Transport/Additional information:</td>
<td></td>
</tr>
<tr>
<td>DOT</td>
<td></td>
</tr>
<tr>
<td>Quantity limitations</td>
<td>On passenger aircraft/rail: 75 kg On cargo aircraft only: 150 kg</td>
</tr>
<tr>
<td>IMDG</td>
<td></td>
</tr>
<tr>
<td>Limited quantities (LQ)</td>
<td>IL</td>
</tr>
<tr>
<td>Excepted quantities (EQ)</td>
<td>Code: E0 Not permitted as Excepted Quantity</td>
</tr>
<tr>
<td>UN &quot;Model Regulation&quot;:</td>
<td>UN 1950 AEROSOLS, 2.2</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):**

67-63-0 | isopropyl alcohol

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Safety Data Sheet  
acc. to OSHA HCS  

Product name: Mold Release Spray, PTFE Based

- TSCA (Toxic Substances Control Act):
  All ingredients are 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.

- Carcinogenic categories

- EPA (Environmental Protection Agency)
  None of the ingredients is listed.

- TLV (Threshold Limit Value established by ACGIH)
  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
- 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. Gas 1: Flammable gases – Category 1
  Press. Gas: Gases under pressure – Compressed gas
  Flam. Liq. 2: Flammable liquids – Category 2
Product name: Mold Release Spray, PTFE Based

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