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@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**
  - **GHS08 Health hazard**
    
    ![GHS08 Health hazard](image)
    Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

  - **GHS09 Environment**
    
    ![GHS09 Environment](image)
    Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

  - **GHS07**
    
    ![GHS07](image)
    Skin Irrit. 2 H315 Causes skin irritation.
    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).

(Contd. on page 2)
Safety Data Sheet
acc. to OSHA HCS

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Product name: Mold Release Spray, PTFE Based

· Hazard pictograms

![Pictograms]

GHS07 GHS08 GHS09

· Signal word Danger

· Hazard-determining components of labeling:
  2-methylpentane
  3-methylpentane
  isopropyl alcohol
  2,2-dimethylbutane

· Hazard statements
  Causes skin irritation.
  Causes serious eye irritation.
  May cause drowsiness or dizziness.
  May be fatal if swallowed and enters airways.
  Toxic to aquatic life with long lasting effects.

· Precautionary statements
  Avoid breathing dust/fume/gas/mist/vapors/spray
  Wash thoroughly after handling.
  Use only outdoors or in a well-ventilated area.
  Avoid release to the environment.
  Wear protective gloves / eye protection / face protection.
  If swallowed: Immediately call a poison center/doctor.
  Specific treatment (see on this label).
  Do NOT induce vomiting.
  If on skin: Wash with plenty of water.
  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.
  Take off contaminated clothing and wash it before reuse.
  If skin irritation occurs: Get medical advice/attention.
  If eye irritation persists: Get medical advice/attention.
  Collect spillage.
  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)

![NFPA ratings]

Health = 2
Fire = 0
Reactivity = 1

· HMIS-ratings (scale 0 - 4)

![HMIS ratings]

Health = 2
Fire = 0
Reactivity = 1

· Other hazards

· Results of PBT and vPvB assessment
  · PBT: Not applicable.
  · vPvB: Not applicable.

(Contd. on page 3)
Product name: Mold Release Spray, PTFE Based

3 Composition/information on ingredients

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

· Hazardous Components:

| 75-37-6 | 1,1-difluoroethane | Flam. Liq. 1, H224 | 25-50% |
| 67-63-0 | isopropyl alcohol | Flam. Liq. 2, H225; Eye Irrit. 2A, H319; STOT SE 3, H336 | ≥10-<20% |
| 107-83-5 | 2-methylpentane | Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336 | ≥10-<20% |
| 96-14-0 | 3-methylpentane | Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336 | ≥2.5-<10% |
| 75-83-2 | 2,2-dimethylbutane | Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336 | ≥2.5-<10% |
| 79-29-8 | 2,3-dimethylbutane | Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336 | ≥2.5-<10% |
| 110-54-3 | n-hexane | Flam. Liq. 2, H225; Acute Tox. 4, H332 | ≤1% |

4 First-aid measures

· Description of first aid measures
· General information: Immediately remove any clothing soiled by the product.
· After inhalation: 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. 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
  Dizziness
  Nausea
  Headache
  Allergic reactions
· Indication of any immediate medical attention and special treatment needed No further relevant information available.

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.
  Inform respective authorities in case of seepage into water course or sewage system.
· Methods and material for containment and cleaning up:
  Dispose contaminated material as waste according to item 13.
Product name: Mold Release Spray, PTFE Based

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>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-37-6</td>
<td>1,1-difluoroethane</td>
</tr>
<tr>
<td>67-63-0</td>
<td>isopropyl alcohol</td>
</tr>
<tr>
<td>107-83-5</td>
<td>2-methylpentane</td>
</tr>
<tr>
<td>96-14-0</td>
<td>3-methylpentane</td>
</tr>
<tr>
<td>75-83-2</td>
<td>2,2-dimethylbutane</td>
</tr>
<tr>
<td>110-54-3</td>
<td>n-hexane</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAC-2</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-37-6</td>
<td>1,1-difluoroethane</td>
</tr>
<tr>
<td>67-63-0</td>
<td>isopropyl alcohol</td>
</tr>
<tr>
<td>107-83-5</td>
<td>2-methylpentane</td>
</tr>
<tr>
<td>96-14-0</td>
<td>3-methylpentane</td>
</tr>
<tr>
<td>75-83-2</td>
<td>2,2-dimethylbutane</td>
</tr>
<tr>
<td>110-54-3</td>
<td>n-hexane</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAC-3</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-37-6</td>
<td>1,1-difluoroethane</td>
</tr>
<tr>
<td>67-63-0</td>
<td>isopropyl alcohol</td>
</tr>
<tr>
<td>107-83-5</td>
<td>2-methylpentane</td>
</tr>
<tr>
<td>96-14-0</td>
<td>3-methylpentane</td>
</tr>
<tr>
<td>75-83-2</td>
<td>2,2-dimethylbutane</td>
</tr>
<tr>
<td>110-54-3</td>
<td>n-hexane</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:**
    - Protect from sunlight.
    - Store at temperatures not exceeding 49°C.
    - Observe official regulations on storing packagings with pressurized containers.
  - **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:**
    - The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
Product name: Mold Release Spray, PTFE Based

At this time, the remaining constituent has no known exposure limits.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>PEL Long-term value</th>
<th>REL Short-term value</th>
<th>TLV Short-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0 isopropyl alcohol</td>
<td></td>
<td>Long-term value: 980 mg/m³, 400 ppm</td>
<td>Short-term value: 1225 mg/m³, 500 ppm</td>
<td>Short-term value: 984 mg/m³, 400 ppm</td>
</tr>
<tr>
<td>107-83-5 2-methylpentane</td>
<td></td>
<td>Long-term value: 350 mg/m³, 100 ppm</td>
<td>Ceiling limit value: 1800* mg/m³, 510* ppm</td>
<td>Short-term value: 3500 mg/m³, 1000 ppm</td>
</tr>
<tr>
<td>96-14-0 3-methylpentane</td>
<td></td>
<td>Long-term value: 350 mg/m³, 100 ppm</td>
<td>Ceiling limit value: 1800* mg/m³, 510* ppm</td>
<td>Short-term value: 3500 mg/m³, 1000 ppm</td>
</tr>
<tr>
<td>75-83-2 2,2-dimethylbutane</td>
<td></td>
<td>Long-term value: 350 mg/m³, 100 ppm</td>
<td>Ceiling limit value: 1800* mg/m³, 510* ppm</td>
<td>Short-term value: 3500 mg/m³, 1000 ppm</td>
</tr>
<tr>
<td>79-29-8 2,3-dimethylbutane</td>
<td></td>
<td>Long-term value: 350 mg/m³, 100 ppm</td>
<td>Ceiling limit value: 1800* mg/m³, 510* ppm</td>
<td>Short-term value: 3500 mg/m³, 1000 ppm</td>
</tr>
<tr>
<td>110-54-3 n-hexane</td>
<td></td>
<td>Long-term value: 1800 mg/m³, 500 ppm</td>
<td>Long-term value: 180 mg/m³, 50 ppm</td>
<td>Long-term value: 176 mg/m³, 50 ppm</td>
</tr>
</tbody>
</table>

**Ingredients with biological limit values:**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>BEI</th>
<th>Medium</th>
<th>Time</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0 isopropyl alcohol</td>
<td></td>
<td>40 mg/L</td>
<td>urine</td>
<td>end of shift at end of workweek</td>
<td>Acetone (background, nonspecific)</td>
</tr>
<tr>
<td>110-54-3 n-hexane</td>
<td></td>
<td>0.4 mg/L</td>
<td>urine</td>
<td>end of shift at end of workweek</td>
<td>2,5-Hexanediol without hydrolysis</td>
</tr>
</tbody>
</table>

**Additional information:** The lists that were valid during the creation were used as basis.
Product name: Mold Release Spray, PTFE Based

- 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 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

- 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: Alcohol-like
  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 (3.866 mm Hg)
Product name: Mold Release Spray, PTFE Based

- Density: Not determined.
- Relative density: Not determined.
- Vapor density: >1 (Air = 1)
- Specific gravity at 20 °C (68 °F): 0.82
- Evaporation rate: >1 (BuAc = 1)
- Solubility in / Miscibility with Water: Partly miscible.
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- Solvent content:
  - Organic solvents: 22.5 %
  - VOC content: 40.54 %
    - 405.4 g/l / 3.38 lb/gal
- 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: Chlorine
- 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:

      | Toxicant                  | Route | Value |
      |--------------------------|-------|-------|
      | 75-37-6 1,1-difluoroethane | Inhalation | LC50/4h | 977 mg/l (mouse) |
      | 67-63-0 isopropyl alcohol  | Oral  | LD50  | 5,045 mg/kg (rat) |
      |                           | Dermal | LD50  | 12,800 mg/kg (rabbit) |
      |                           | Inhalation | LC50/4h | 30 mg/l (rat) |
      | 110-54-3 n-hexane          | Inhalation | LC50/4h | 11 mg/l (ATE) |

- Primary chemical irritant effect:
  - on the skin: Irritant to skin and mucous membranes.
  - 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

(Contd. on page 8)
### 12 Ecological information

#### Toxicity

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

- **n-hexane**
  - LC50 (96 h) 2,981 mg/l (pimephales promelas)

#### Persistence and degradability
No further relevant information available.

#### Behavior in environmental systems:
- *Bioaccumulative potential* May be accumulated in organism
- *Mobility in soil* No further relevant information available.

#### Ecotoxic effects:
- *Remark:* Toxic for fish

#### 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.
- Also poisonous for fish and plankton in water bodies.
- Toxic for aquatic organisms

#### 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: UN1950

- **UN proper shipping name**
  - DOT: Aerosols, non-flammable
  - IMDG: AEROSOLS
  - IATA: AEROSOLS, non-flammable
# Safety Data Sheet

**acc. to OSHA HCS**

*Printing date 05/01/2020*

**Version 3.0**

**Last revision 05/01/2020**

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

(Contd. of page 8)

<table>
<thead>
<tr>
<th>· Transport hazard class(es)</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>· DOT</td>
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</tr>
<tr>
<td>· Class</td>
<td>2.2</td>
</tr>
<tr>
<td>· Label</td>
<td>2</td>
</tr>
</tbody>
</table>

| · IMDG, IATA                         |                      |
|                                      |                      |
| · Class                              | 2.2                  |
| · Label                              | 2                    |

| · Packing group                      |                      |
|                                      | not regulated        |

| · DOT, IMDG, IATA                    |                      |
|                                      |                      |

| · Environmental hazards:             |                      |
| · Marine pollutant:                  | No                   |

| · Special precautions for user       |                      |
|                                      | Warning: Gases       |
|                                      | F-D,S-U              |

| · Hazard identification number (Kemler code): |                      |
| · EMS Number:                                | SW1 Protected from sources of heat. |
| · Stowage Code:                              | 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. |
|                                            | SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" 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. |

| · Segregation Code                    |                      |
|                                      |                      |

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

| · Transport/Additional information:  |                      |
|                                      |                      |
|                                      |                      |

| · DOT                                |                      |
|                                      | On passenger aircraft/rail: 75 kg |
|                                      | On cargo aircraft only: 150 kg |

| · Limited quantities (LQ)            | 1L                    |
|                                      |                      |
|                                      |                      |

| · Transport category                 | 2                     |
|                                      |                      |
|                                      |                      |

| · Tunnel restriction code            | D                     |
|                                      |                      |

| · IMDG                               |                      |
|                                      |                      |

| · Limited quantities (LQ)            | 1L                    |
|                                      |                      |
|                                      |                      |

| · Excepted quantities (EQ)           | Code: E0              |
|                                      | Not permitted as Excepted Quantity |

| · UN "Model Regulation":            |                      |
|                                      | UN 1950 AEROSOLS, 2.2, ENVIRONMENTALLY HAZARDOUS |

(Contd. on page 10)
15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

<table>
<thead>
<tr>
<th>Section 355 (extremely hazardous substances):</th>
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</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
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</table>

<table>
<thead>
<tr>
<th>Section 313 (Specific toxic chemical listings):</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0 isopropyl alcohol</td>
</tr>
<tr>
<td>110-54-3 n-hexane</td>
</tr>
</tbody>
</table>

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

- Hazardous Air Pollutants
  - 110-54-3 n-hexane

- 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:
    - 110-54-3 n-hexane
  - Chemicals known to cause developmental toxicity:
    None of the ingredients is listed.

- Carcinogenic categories
  - EPA (Environmental Protection Agency)
    - 110-54-3 n-hexane
  - TLV (Threshold Limit Value established by ACGIH)
    - 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: 05/01/2020 / 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

(Contd. on page 11)
Product name: Mold Release Spray, PTFE Based

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. 1: Flammable liquids – Category 1
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2