

## 1 Identification

- **Product identifier**
- **Product Name:** Ammonium Hexafluorotitanate
- **Part Name:**  
IFC-TI-4A-10  
IFC-TI-4A-25
- **CAS Number:**  
16962-40-6
- **Application of the substance / the mixture** For Laboratory Use Only
- **Uses advised against** Not for Human or Animal Use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Spex CertiPrep, LLC.  
203 Norcross Ave, Metuchen,  
NJ 08840 USA  
732-549-7144  
USMet-CRMSales@antylia.com
- **Information department:** product safety department
- **Emergency telephone number:**  
Emergency Phone Number (24 hours)  
CHEMTREC (800-424-9300)  
Outside US: 703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS06 Skull and crossbones

Acute Toxicity - Oral 3      H301 Toxic if swallowed.  
Acute Toxicity - Dermal 3      H311 Toxic in contact with skin.



GHS07

Acute Toxicity - Inhalation 4      H332 Harmful if inhaled.

- **Label elements**
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS06

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
Ammonium hexafluorotitanate
- **Hazard statements**  
H301+H311 Toxic if swallowed or in contact with skin.  
H332 Harmful if inhaled.
- **Precautionary statements**  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray  
P264 Wash thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves / protective clothing.  
P301+P310 If swallowed: Immediately call a poison center/doctor.  
P321 Specific treatment (see on this label).  
P330 Rinse mouth.  
P302+P352 If on skin: Wash with plenty of water.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312 Call a poison center/doctor if you feel unwell.  
P361+P364 Take off immediately all contaminated clothing and wash it before reuse.  
P405 Store locked up.

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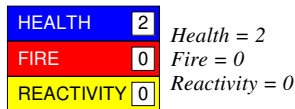
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P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
- NFPA ratings (scale 0 - 4)



- HMIS-ratings (scale 0 - 4)



- Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

### 3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description  
16962-40-6 Ammonium hexafluorotitanate

### 4 First-aid measures

- Description of first aid measures
- General information:  
Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.  
In case of irregular breathing or respiratory arrest provide artificial respiration.
- After inhalation:  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
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. Then consult a doctor.
- After swallowing:  
Do not induce vomiting; immediately call for medical help.  
Do not give anything to eat or drink - Do not induce vomiting
- Information for Doctor:  
· Most important symptoms and effects, both acute and delayed No further relevant information available.  
· 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: Mouth respiratory protective device.

### 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 section 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

- PAC-1:  
Substance is not listed.

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|                          |
|--------------------------|
| · <b>PAC-2:</b>          |
| Substance is not listed. |
| · <b>PAC-3:</b>          |
| Substance is not listed. |

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Thorough dedusting.  
Ensure good ventilation/exhaustion at the workplace.
- **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:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **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 section 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **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 and skin.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
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.  
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:** Not required.

### 9 Physical and chemical properties

|  |                 |
|--|-----------------|
| · <b>Information on basic physical and chemical properties</b> |                 |
| · <b>General Information</b>                                   |                 |
| · <b>Appearance:</b>   |                 |
| Form:  | Solid           |
| Color:   | Not determined. |
| · Odor:  | Characteristic  |
| · Odour Threshold:   | Not applicable. |
| · pH-value:  | Not applicable. |
| · <b>Change in condition</b>                                   |                 |
| Melting point/Melting range:                                   | Undetermined.   |

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|   |   |
|---|---|
| <b>Boiling point/Boiling range:</b>             | Undetermined.                                 |
| <b>Flash point:</b>                             | Not applicable.                               |
| <b>Flammability (solid, gaseous):</b>           | Product is not flammable.                     |
| <b>Decomposition temperature:</b>               | Not applicable.                               |
| <b>Ignition temperature:</b>                    | Not determined.                               |
| <b>Danger of explosion:</b>                     | Product does not present an explosion hazard. |
| <b>Explosion limits:</b>                        |   |
| <b>Lower:</b>                                   | Not applicable.                               |
| <b>Upper:</b>                                   | Not applicable.                               |
| <b>Vapor pressure:</b>                          | Not applicable.                               |
| <b>Density</b>                                  | Not applicable.                               |
| <b>Relative density</b>                         | Not applicable.                               |
| <b>Vapor density</b>                            | Not applicable.                               |
| <b>Evaporation rate</b>                         | Not applicable.                               |
| <b>Solubility in / Miscibility with Water:</b>  | Soluble.                                      |
| <b>Partition coefficient (n-octanol/water):</b> | Not applicable.                               |
| <b>Viscosity:</b>                               |   |
| <b>Dynamic:</b>                                 | Not applicable.                               |
| <b>Kinematic:</b>                               | Not applicable.                               |
| <b>VOC content:</b>                             | 0.00 %  |
| <b>Solids content:</b>                          | 100.0 %                                       |
| <b>Other information</b>                        | 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** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not 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.

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- **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:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

|  |                 |
|--|-----------------|
| · <b>UN-Number</b><br>· DOT, ADR, IMDG, IATA                                     | Not Regulated   |
| · <b>UN proper shipping name</b><br>· DOT, ADR, IMDG, IATA                       | Not Regulated   |
| · <b>Transport hazard class(es)</b><br>· DOT, ADR, ADN, IMDG, IATA<br>· Class    | Not Regulated   |
| · <b>Packing group</b><br>· DOT, ADR, IMDG, IATA                                 | Not Regulated   |
| · <b>Environmental hazards:</b>  | Not applicable. |
| · <b>Special precautions for user</b>  | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>  | Not Regulated   |

**15 Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture** No further relevant information available.
- **Sara**

|  |        |
|--|--------|
| · <b>Section 313 (Specific toxic chemical listings):</b><br>Substance is not listed.             |        |
| · <b>TSCA (Toxic Substances Control Act):</b>  | ACTIVE |
| · <b>Hazardous Air Pollutants</b><br>Substance is not listed.                                    |        |
| · <b>Proposition 65</b>  |        |
| · <b>Chemicals known to cause cancer:</b><br>Substance is not listed.                            |        |
| · <b>Chemicals known to cause reproductive toxicity for females:</b><br>Substance is not listed. |        |
| · <b>Chemicals known to cause reproductive toxicity for males:</b><br>Substance is not listed.   |        |
| · <b>Chemicals known to cause developmental toxicity:</b><br>Substance is not listed.            |        |
| · <b>Carcinogenic categories</b>   |        |
| · <b>EPA (Environmental Protection Agency)</b><br>Substance is not listed.                       |        |
| · <b>TLV (Threshold Limit Value)</b><br>Substance is not listed.                                 |        |

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Printing date 08/23/2023

Reviewed on 08/23/2023

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· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

· **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS06

· **Signal word** Danger

· **Hazard-determining components of labeling:**

Ammonium hexafluorotitanate

· **Hazard statements**

H301+H311 Toxic if swallowed or in contact with skin.

H332 Harmful if inhaled.

· **Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves / protective clothing.

P301+P310 If swallowed: Immediately call a poison center/doctor.

P321 Specific treatment (see on this label).

P330 Rinse mouth.

P302+P352 If on skin: Wash with plenty of water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a poison center/doctor if you feel unwell.

P361+P364 Take off immediately all contaminated clothing and wash it before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **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:** product safety department

· **Contact:**

Spex CertiPrep, LLC.

1-732-549-7144

· **Date of preparation / last revision** 08/23/2023

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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

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)

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

Acute Toxicity - Oral 3: Acute toxicity - Category 3

Acute Toxicity - Inhalation 4: Acute toxicity - Category 4