

1. Identification of the substance/mixture and of the company/undertaking

Product identifier

Trade name: **AT-660**

Article number: ushelt660

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

HF Altimilia Fluoro Chemical Co.,Ltd.

2F-1, 286-4, Xinya Rd., Qianzhen Dist., Kaohsiung City 806, Taiwan (R.O.C.) FAX :

886-7-8216380

Further information obtainable from: www.hfaf.com.tw

Emergency telephone number:

TEL : 886-7-8216339

2. Hazard identification

· Classification of the substance or mixture



GHS07

- | | |
|---------------|--|
| Skin Irrit. 2 | H315 Causes skin irritation. |
| | H319 Causes serious eye irritation. |
| STOT SE 3 | H335 May cause respiratory irritation. |

Labelling according to Regulation (EC) No 1272/2008:

The product is classified and labelled according to the CLP regulation.

· Signal word: Warning

· Precautionary statements:

- | | |
|--------------------------------------|---|
| P260 | Avoid breathe dust/fume/gas/mist/vapours/spray. |
| P303+P361+P353 IF ON SKIN (or hair): | Remove/Take off immediately all contaminated clothing.
Rinse skin with water/shower. |
| P305+P351+P338 IF IN EYES : | Rinse cautiously with water for several minutes. Remove
contact lenses, if present and easy to do. Continue rinsing. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container in accordance with local/
regional/national/international regulations |



• **Classification system :**

NFPA rating(scale 0-4)



Health = 1 ,

Fire = 0 ,

Reactivity = 0

HMIS-ratings (scale 0-4)



Health = 1 ,

Fire = 0 ,

Reactivity = 0

• **Other hazards**

• **Results of PBT and vPvB assessment**

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

3. Composition/information on ingredients

Chemical characterization: Substances

7732-18-5 Water	55-65%
25265-71-8 Dipropylene glycol	5-15%
Fluoroalkyl acrylate copolymer	25-35%
Poly(oxyethylene)alkyl ether	<5%

Additional information: For the wording of the listed risk phrases refer to section 16

4 First aid measures

• **Description of first aid measures**

• **General information:** Seek medical treatment

• **After inhalation:** Supply fresh air; consult doctor in case of complaints

• **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Remove contaminated clothes immediately.

• **After eye contact:**

Immediately rinse with a lot of water for several minutes. Remove contact lenses if possible.

Continue rinsing.



• After swallowing:

Rinse mouth with water. Do not induce vomiting.

Information for doctor:

- **Most important symptoms and effects, both acute and chronic:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:** No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** none
- **Special hazards arising from the substance or mixture:**
No further relevant information available.
- **Advice for firefighters:**
- **Protective equipment:**
Wear self-contained respiratory protective device.

6. Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**
Ensure adequate ventilation before entering the area.
Stay on the windward side. Keep out unauthorized persons.
Wear appropriate protective devices (See Section 8 Exposure Controls/ Personal Protection).
Avoid contact with eyes and skin. Do not swallow/ inhale the product.
- **Environmental precautions:** Prevent seepage into sewage system, workpits and cellars.
- **Methods and material for containment and cleaning up:**
For a small amount of leakage: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust) or collect in an empty container that can be sealed tightly.
For a large amount of leakage: Enclose with banks to avoid outflow. Lead the leakage to a safe place and collect.
- **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. Handling and storage

- **Handling**

- **Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Do not handle until all safety precautions have been read and understood.

Install extractors.

- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.

- **Conditions for safe storage, including any incompatibilities:**

- **Storage**

- **Requirements to be met by storerooms and receptacles:**

Store in a cool and dry location.

Keep receptacle tightly sealed.

- **Information about storage in one common storage facility:**

See section 10 for information on incompatible materials.

- **Further information about storage conditions:**

Store in dry conditions.

Protect from heat and direct sunlight.

Store receptacle in a well ventilated area.

Store locked up.

- **Recommended storage temperature:** at 5°C to 30°C

- **Specific end use(s):** No further relevant information available.

8. Exposure controls/personal protection

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

- **Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **Exposure controls**

- **Personal protective equipment**

- **General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

Do not eat or drink while working.

Keep away from tobacco products.



• Respiratory protection:

Use respiratory protective device with filters for organic and acid gas (or airline respirators in some cases), if the product is heated above 200 °C and toxic gases is formed.

Use respiratory protective device with filters for organic and acid gas (or airline respirators in some cases) if formation of toxic gases is possible while the product is heated.

Use respiratory protective device with organic gas cartridge.

• Protection of hands: Protective gloves**• Eye protection:** Safety glasses**• Body protection:** Protective work clothing

9. Physical and chemical properties

• Information on basic physical and chemical properties**• General Information****• Appearance**

Form: Liquid

Color: Slightly yellow-brown

• Odor: Characteristic

• pH-value: 2.0±1.0

• Change in condition

Melting point/Melting range: No further information available.

Boiling point/Boiling range: approx 100 °C (approx 212 °F)

• Flash point: Not applicable.

• Flammability (solid, gaseous): Not applicable.

• Decomposition temperature: 200 °C

• Self-igniting: Product is not self-igniting.

• Danger of explosion: Product does not present an explosion hazard.

• Lower explosive limit: No further information available.

• Upper explosive limit: No further information available.

• Vapour pressure: No further information available.

• Density at 20 °C: 1.07 g/cm³

• Relative density at 20 °C: 1.04~1.13 g/cm³

• Solubility in / Miscibility with water: Fully miscible.

• Partition coefficient (n-octanol/water): No further information available.

• Other information: No further relevant information available.



10. Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition, do not overheat.
- **Possibility of hazardous reactions:** No dangerous reactions known under normal conditions of use.
- **Conditions to avoid:** Keep away from heat, sparks, flame, high temperature.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Danger of toxic fluorine based pyrolysis products.

11. Toxicological information

- **Information on toxicological effects**
- **LD/LC50 values relevant for classification:**
Oral LD50 >5000 mg/kg (rat)
- **Primary irritant effect**
- **On the skin:** No irritant effect.
- **On the eye:** Slight irritant effect.
- **Sensitization:** No sensitizing effect.
- **Subacute to chronic toxicity:** No further information available.
- **IARC(International Agency for Research on Cancer) :** Substance is not listed.
- **NTP(National Toxicology Program) :** Substance is not listed.

12. Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behaviour in environmental systems**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Results of PBT and vPvB assessment**
PBT: No further relevant information available.
vPvB: No further relevant information available.
- **Other adverse effects:** No further relevant information available.



13. Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Disposal must be made according to official regulations.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.

14. Transport information

- **UN-Number :** -
- **ADR, ADN, IMDG, IATA** Not applicable
- **UN proper shipping name:**
- **ADR, ADN, IMDG, IATA** Not applicable
- **Transport hazard class(es):**
ADR, ADN, IMDG, IATA
Class: Not applicable
- **Packing group:**
- **ADR, IMDG, IATA** Not applicable
- **Environmental hazards:**
- **Marine pollutant:** No
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **Transport/Additional information:**
 - Avoid direct sunlight.
 - Make sure of no damage, corrosion, leaks on the receptacles.
 - Take necessary measures for preventing cargo shift.
- **UN "Model Regulation":** -

15. Regulatory information

16. Other information

The product is for the industrial use only. We do not guarantee the safety in case the product is used for the other purposes. When using the product for health-care application or food/feed application, consult us in advance. 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:** EHS Department



• Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer
(Regulations Concerning the International

Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

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

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

