

## Material Safety Data Sheet

### Ammonium acetate

#### Section 1 – PRODUCT AND COMPANY IDENTIFICATION

<b>1. Product Identifier</b>	Ammonium acetate; Acetic acid, ammonium salt
<b>2. Recommended Use &amp; Uses advised against</b>	Uses for Laboratory and R&D only
<b>3. Information of Supplier</b>	SAMCHUN PURE CHEMICAL CO.,LTD ADDRESS; (Mogok-dong) 117, Sandan-ro 16Beon-gil, Pyeongtaek-si, Gyeonggi-do, Korea Emergency Phone; 82-31-668-0700/3 Department; Safety & Environment dep. Web site; <a href="http://www.samchun.com">http://www.samchun.com</a>

#### Section 2 – HAZARDS and DANGER IDENTIFICATION

<b>1.GHS Classification· Identification</b>	Non-described
<b>2. Label and Mark including Precautionary Statement</b>	
◦Label elements	Non-described
◦Signal word	Non-described
◦Hazard · Danger statement	Non-described
◦Precautionary statement	
<b>Precaution</b>	Non-described
<b>Precaution</b>	Non-described
<b>Measures</b>	Non-described
<b>Storage</b>	Non-described
<b>Dispose</b>	Non-described
<b>3. Other Hazard-Risk which are not included in the classification criteria</b>	
NFPA index(0~4steps) : Health=1, Fire=1, Reaction=0	

#### Section 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Name	Other Name	CAS No.	Content (%)
Ammonium acetate	Acetic acid, ammonium salt	631-61-8	95 – 100
Water		7732-18-5	0 - 5

#### Section 4 – FIRST AID MEASURES

<b>1. Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15minutes, Immediate medical attention is required.
<b>2. Skin Contact</b>	Take off contaminated cloths and shoes immediately, wash with plenty Of water and soap for at least 15minutes.
<b>3. Inhalation</b>	Move to fresh air immediately, if breathing is difficult, induce artificial respiration and immediate medical treatment is required.
<b>4. Ingestion</b>	Do not induce vomiting and Call a physician immediately.
<b>5. Immediate medical attention and Notes for physician</b>	Let physician aware material and take protection measures.

#### Section 5 – FIRE-FIGHT MEASURES

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| <b>1. Suitable extinguish media</b>                                      | Dry chemical, foam extinguishing agents, carbon dioxide, water spray<br>Inappropriate Extinguishing Media: Not available  |
| <b>2. Special hazards arising from the substance</b>                     | Thermal decomposition products: ammonia, nitrogen oxides, carbon  |
| <b>3. Special protective equipment and Precautions for fire-fighters</b> | Move a container away from fire place, available not being dangerous<br>Cool the container with water spray for long time, after extinguishing<br>No direct contact with material by water. In case of big fire, mass watering in fine spray and decrease vapor. Spray in safety distance, avoid inhaling of material-itself and burnings, position in opposite wind and escape low area. |

#### Section 6 – ACCIDENTIAL RELEASE MEASURES

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| <b>1. Personal precautions and Emergency procedures</b>        | Don't touch leakages and avoid inhale and skin contact, ventilate and use air respiratory in closed room, remove ignition source. |
| <b>2. Environmental precautions</b>                            | Minimize leak/spill, collect and keep leak/spill in container   |
| <b>3. Methods and material for containment and cleaning up</b> | Remove residue with high-efficient cleaner  |

#### Section 7 – HANDLING AND STORAGE

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| <b>1. Precautions for safe Handling</b> | Skin contact, inhalation of vapors and prevent intrusion to the eye, all containers will be grounded.  |
| <b>2. Conditions for safe storage</b>   | Keep container tightly sealed and stored dry, cool place, in a well-ventilated area. Will be isolated and incompatible materials. Keep away from moisture. |

#### Section 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

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| <b>1. Occupational exposure limit, biological exposure limit</b> |   |
| National law of Safety management of<br>N/A                      |   |
| <b>2. Appropriate Engineering controls</b>                       | Check conditions of exposure criteria, operation local ventilation during work<br>Ventilation device cases explosive concentrations of material are to be explosion-proof equipment   |
| <b>3. Personal protective equipment</b>                          |   |
| ◦Respiratory protection  | Reserve for breathing pilhan certified by the Safety and Health Agency<br>Depending on the work environment affect the image density, or other life or health is concerned, wear supplied-air respirator, air respirator<br>There is no hazard due to chemicals under normal conditions, protection is not required |
| ◦Eye-protection  | There is no hazard due to chemicals under normal conditions, protection is not required<br>Provide eye wash facilities and emergency equipment near the washing chemical handling areas.  |
| ◦Hand protection   | There is no hazard due to chemicals under normal conditions, protection is not required   |
| ◦Skin and body proticion   | There is no hazard due to chemicals under normal conditions, protection is not required   |

#### Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

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|------------------------------------|--------------|---|------------------|
| <b>1. Physical state and color</b> | Solid(White) | <b>2. Odor</b>                                    | Acetic acid odor |
| <b>3. threshold</b>                | N/A          | <b>4. pH</b>                                      | 7(0.5M sol.)     |
| <b>5. Melting/Freezing point</b>   | 110-112°C    | <b>6. Boiling point/range</b>                     | N/A              |
| <b>7. Flashing point</b>           | 136°C        | <b>8. Evaporation speed</b>                       | N/A              |
| <b>9. Flammability(solid, gas)</b> | N/A          | <b>10. Flash or Explosion limit upper / lower</b> | N/A              |

<b>11. Vapor pressure</b>	N/A	<b>12. Solubility</b>	1480g/l(20°C)
<b>13. Vapor density</b>	N/A	<b>14.Gravity</b>	1.07-1.18
<b>15. n-octanol-water Partition coefficient</b>	N/A	<b>16. Self ignition temp(°C)</b>	N/A
<b>17. Cracking temp(°C)</b>	N/A	<b>18. Viscosity</b>	N/A
<b>19. Molecular Weight</b>	77.08		

### Section 10 – STABILITY AND REACTIVITY

<b>1.Chemical stability and Possibility of Hazardous Reactions</b>	Stable under normal temp. and pressure Not polymerize
<b>2. Conditions to Avoid</b>	Heat, sparks, flames and other sources of ignition. Avoid contact with incompatible materials
<b>3. Incompatible Materials</b>	Acids, bases, oxidizing agents, metal
<b>4. Hazardous Decomposition Products</b>	Thermal decomposition products: ammonia, nitrogen oxides, carbon

### Section 11 – TOXICOLOGICAL INFORMAIION

#### 1. Information on the likely routes of exposure.

N/A

#### 2. Health hazard information

◦Acute toxic	N/A
◦Serious skin corrosive / irritation	It may cause skin irritation.
◦Serious eye damage / irritation	It may cause eye irritation.
◦Respiratory sensitization	N/A
◦Skin sensitization	N/A
◦ Carcinogenicity	N/A
◦ Germ cell Mutagenicity	N/A
◦ Reproductive toxic	N/A
◦Specific target organ toxicity (single exposure )	N/A
◦Specific target organ toxicity (repeated exposure )	N/A
◦Aspiration hazard	N/A

### Section 12 – ECOLOGICAL INFORMATION

<b>1.Acquatic and Terrestrial eco toxicity</b>	Fish toxicity : LC50 41083mg/l 96hr Invertebrate toxicity : LC50 1400000mg/l 48hr Sea algae : EC50 664000mg/l 96hr
<b>2.Persistence and degradability</b>	Persistence : log Kow -2.79 (estimated) Degradability : N/A
<b>3.Bioaccumulative potential</b>	Concentrations : BCF 3.162 Bioaccumulative : N/A
<b>4.Mobility in soil</b>	Considering the estimated koc 25 to Mobility is estimated to be very high, but Henry constant is $8.10 \times 10^{-6}$ atm-cum / mole by being volatilized from the soil surface
<b>5.Other adverse effects</b>	N/A

### Section 13 – Disposable considerations

<b>1.Waste methods</b>	Dispose in accordance with local regulations.
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**2.Waste warning**

Isolate waste away from prohibitive mixture substance.

**Section 14 – TRANSPORT INFORMATION**

<b>1. UN No.</b>	3077
<b>2.Proper shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S
<b>3.Hazard class</b>	9
<b>4.Packing group</b>	III
<b>5.Marine pollutant</b>	described
<b>6.Particular safety Measures for transportation</b>	Fire emergency : F-A Emergency measures RELEASE : S-F

**Section 15 – REGULATORY INFORMATION**

<b>1.Occupation safety and health acts</b>	Non-described
<b>2. National law of management of Harmful chemical Substance</b>	Non-described
<b>3. National law of Safety management of hazardous material</b>	Non-described
<b>4.National law of management of Wastes</b>	Designated Waste
<b>5.Other domestic and foreign law</b>	Non-described

**Section 16 – OTHER INFORMATION**

<b>1. Material source</b>	A chemical information MSDS Safety and Health Agency National Institute of Environmental Research Chemical Information Systems Korea Industrial Technology National Fire Hazardous Materials Information System
<b>1. The 1<sup>st</sup> edition</b>	2002.07.30
<b>2. Revision and The final revision</b>	6 / 2019.01.03
<b>. Other references</b>	

\* The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.