

Material Safety Data Sheet

Ammonium iron(II) sulfate hexahydrate

Section 1 – PRODUCT AND COMPANY IDENTIFICATION

1. Product Identifier	Ammonium iron(II) sulfate hexahydrate;
2. Recommended Use & Uses advised against	Ferrous ammonium sulfate hexahydrate Uses for Laboratory and R&D only
3. Information of Supplier	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; http://www.samchun.com

Section 2 – HAZARDS and DANGER IDENTIFICATION

1.GHS Classification- Identification	Skin Corrosion/Skin Irritation	Category2
	Serious Eye Damage/Eye Irritation	Category2

2. Label and Mark including Precautionary Statement

◦Label elements



◦Signal word

Warning

◦Hazard · Danger statement

H315 Causes skin irritation
H319 Causes serious eye irritation

◦Precautionary statement

Precaution P264 Wash ... thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection

Measures

P321 Specific treatment (see Section 4. on this label).

P302+P352 IF ON SKIN: Wash with plenty of water / (...)

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash before reuse

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337+P313 If eye irritation persists: Get medical advice/attention.

Storage N/A

Dispose N/A

3. Other Hazard-Risk which are not included in the classification criteria

NFPA index(0~4steps) : Health=2, Fire=0, Reaction=0

Section 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Name	Other Name	CAS No.	Content (%)
Ammonium iron(II)sulfate hexahydrate	Ferrous ammonium sulfate hexahydrate	7783-85-9	99 ~ 100
Water		7732-18-5	0 ~ 1

Section 4 – FIRST AID MEASURES

1. Eye Contact	Rinse with plenty of water for at least 15minutes and get medical attention immediately.
2. Skin Contact	Take off contaminated cloths and shoes immediately, wash with plenty of water and soap for at least 15minutes.
3. Inhalation	Move victim to fresh air. If breathing is difficult, give artificial respiration and get medical attention immediately.
4. Ingestion	Do not induce vomiting. Get medical advice/attention immediately.
5. Immediate medical attention and Notes for physician	Keep the medical personnel aware of the materials involved and take protective action.

Section 5 – FIRE-FIGHT MEASURES

1. Suitable extinguish media	Powder extinguisher, foam extinguisher, carbon dioxide, water spray Inappropriate Extinguishing Media: N/A
2. Special hazards arising from the substance	Thermal decomposition products: ammonia, nitrogen oxides, sulfur
3. Special protective equipment and Precautions for fire-fighters	Move containers from fire area if you can do it without risk. When extinguishing a fire, be sure to wear personal protective equipment. If it is not possible to extinguish the fire, withdraw immediately. Keep containers cool by spraying with water for a long time, even after the fire is out. Isolate hazardous areas and deny access to people.

Section 6 – ACCIDENTAL RELEASE MEASURES

1. Personal precautions and Emergency procedures	Do not touch spilled material. Avoid inhalation and skin contact. In case of confined space, wear air respirator and ventilate and remove all sources of ignition.
2. Environmental precautions	Minimize leak/spill, collect and keep leak/spill in container
3. Methods and material for containment and cleaning up	Remove residue with high-efficient cleaner

Section 7 – HANDING AND STORAGE

1. Precautions for safe Handling	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. All containers should be grounded.
2. Conditions for safe storage	Keep container tightly closed in a dry, cool and well-ventilated place. Keep away from incompatible materials. Store in a dark place.

Section 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

1. Occupational exposure limit, biological exposure limit

National law of Safety management of

Occupational Health and Safety Act

-TWA: 1mg/m³

1mg/m³ ACGIH TWA

2. Appropriate Engineering controls	Ensure compliance with applicable exposure limits and operate local exhaust ventilation when working.
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3. Personal protective equipment

◦**Respiratory protection** Because it is concerned about the harmfulness of human body due to chemical substances, it is recommended to wear respiratory protective equipment with dust mask or dust filter in consideration of physical and chemical characteristics when handling.

Respiratory protection should be certified by the Health and Safety Authority.

It is concerned about the harmfulness of the human body depending on the working environment, it should wear respirator, air-purifying respirator

◦**Eye-protection** Wear safety glasses when handling as they may cause human health hazards due to chemicals. Install eye wash facilities and emergency eyewash stations near chemical handling sites

◦ Hand protection	Wear safety gloves when handling, as it is likely to harm human health due to chemicals
◦ Skin and body protection	Wear chemical protective clothing when handling, as it is likely to harm human health due to chemicals

Section 9 – PHYSICAL AND CHEMICAL PROPERTIES

1. Physical state and color	Solid(Green to Blue)	2. Odor	Odorless
3. threshold	N/A	4. pH	3.0 ~ 5.0
5. Melting/Freezing point	100°C	6. Boiling point/range	N/A
7. Flashing point	N/A	8. Evaporation speed	N/A
9. Flammability(solid, gas)	N/A	10. Flash or Explosion limit upper / lower	N/A
11. Vapor pressure	N/A	12. Solubility	269g/l(20°C)
13. Vapor density	>1.0	14. Gravity	1.86 ~ 1.864
15. n-octanol-water Partition coefficient	N/A	16. Self ignition temp(°C)	N/A
17. Cracking temp(°C)	100~110°C	18. Viscosity	N/A
19. Molecular Weight	392.14		

Section 10 – STABILITY AND REACTIVITY

1. Chemical stability and Possibility of Hazardous Reactions	Stable under normal temp. and pressure Not polymerize
2. Conditions to Avoid	Avoid contact with incompatible materials, light and moisture. Avoid temperatures above 100 ° C
3. Incompatible Materials	Oxidant, acid
4. Hazardous Decomposition Products	Thermal decomposition products: ammonia, nitrogen oxides, sulfur

Section 11 – TOXICOLOGICAL INFORMATION

1. Information on the likely routes of exposure.

Stimulation, delayed pulmonary edema

Nausea, vomiting, diarrhea, liver damage, heart failure

2. Health hazard information

◦ Acute toxic	Oral : LD50 3250mg/kg Rat Skin : N/A Inhalation : N/A
◦ Serious skin corrosive / irritation	Skin irritation
◦ Serious eye damage / irritation	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

1.Acquatic and Terrestrial eco toxicity	Fish toxicity : N/A Invertebrate toxicity : N/A Sea algae : N/A
2.Persistence and degradability	Persistence : N/A Degradability : N/A
3.Bioaccumulative potential	Concentrations : N/A Bioaccumulative : N/A
4.Mobility in soil	N/A
5.Other adverse effects	N/A

Section 13 – Disposable considerations

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| 1.Waste methods | Dispose in accordance with local regulations. |
| 2.Waste warning | Dispose prohibited substances and waste separately from others. |

Section 14 – TRANSPORT INFORMATION

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| 1. UN No. | Non-described |
| 2.Proper shipping Name | Non-described |
| 3.Hazard class | Non-described |
| 4.Packing group | Non-described |
| 5.Marine pollutant | N/A |
| 6.Particular safety Measures for transportation | Non-described |

Section 15 – REGULATORY INFORMATION

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| 1.Occupation safety and health acts | Standard material of exposure |
| 2. Chemical Substances Control Act | Non-described |
| 3. National law of Safety management of hazardous material | Non-described |
| 4.National law of management of Wastes | Designated Waste |
| 5.Other domestic and foreign law | N/A |

Section 16 – OTHER INFORMATION

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| 1. Material source | 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 |
| 1. The 1st edition | 2002.07.30 |
| 2. Revision and The final revision | 5 / 2019.01.03 |

. Other references

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