



MATERIAL SAFETY DATA SHEET

HIGH CATIONIC FLOCCULANT

1) IDENTIFICATION OF CHEMICAL PRODUCT AND COMPANY

Chemical Product Name : **AQUA HCF**
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2) COMPOSITION AND INFORMATION ON INGREDIENTS

Identification of the preparation : Cationic water-soluble powder polymer.

3) HAZARD IDENTIFICATION

Spills produce extremely slippery surfaces.

4) FIRST AID MEASURES

Inhalation : Move to fresh air.
Skin Contact : Wash with water and soap as a precaution. In case of persistent skin irritation, consult a physician.
Eye Contact : Rinse thoroughly with plenty of water, also under the eyelids. In case of persistent eye irritation, consult a physician.
Ingestion : The product is not considered toxic based on studies on laboratory animals.

5) FIRE AND EXPLOSION DATA

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| Suitable extinguishing media | : | Water, water spray, foam, carbon dioxide (CO ₂), dry powder |
| Special fire-fighting precautions | : | Aqueous solutions or powders that become wet render surfaces extremely slippery. |
| Special protective equipment for fire-fighters | : | No special protective equipment required. |

6) ACCIDENT RELEASE MEASURES

| | | |
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| Personal precautions | : | Nothing special required. |
| Environmental precautions | : | Do not contaminate with water. |
| Methods for clearing up | : | <u>Do not flush with water.</u> Clean up promptly by scoop or vacuum. Keep in suitable and closed containers for disposal. <u>After cleaning</u> flush away traces with water. |

7) HANDLING AND STORAGE

| | | |
|----------|---|--|
| Handling | : | Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Wash hands before breaks and at the end of workday. |
| Storage | : | Keep in a dry, cool place & covered place (Ambient Temperature). |

8) EXPOSURE CONTROLS/PERSONAL PROTECTION

| | | |
|---|---|---|
| Engineering measures to reduce exposure | : | Use local exhaust if dusting occurs. Natural ventilation is adequate in the absence of dusts. |
| Personal protection equipment | | |
| Respiratory protection | : | Dust safety masks are recommended where concentration of total dust is more than 10 mg/m ³ . |
| Hand protection | : | Rubber gloves. |
| Eye protection | : | Safety glass with side - shields. Do not wear contact lenses. |
| Skin and body protection | : | Chemical resistant apron or protective suit if splashing or repeated contact with solution is likely. |
| Hygiene measures | : | Wash hands before breaks and at the end of workday. Handle in accordance with good industrial hygiene and safety practice |

9) TYPICAL PHYSICAL DATA AND CHEMICAL PROPERTIES

| | | |
|------------------------------------|---|--------------------------|
| Physical Form | : | White Crystalline Powder |
| Color | : | White |
| Odor | : | None |
| pH of 0.1% solution | : | 3.0 – 5.0 |
| Bulk Viscosity (cps) 0.1% solution | : | 25 - 50 |

10) STABILITY AND REACTIVITY

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| Stability | : | Product is stable, no hazardous polymerization will occur. |
| Material to avoid | : | Oxidizing agents may cause exothermic reactions. |
| Hazardous decomposition products. | : | Thermal decomposition may produce : Nitrogen Oxides (Nox) , Carbon oxides |

11) TOXICOLOGICAL INFORMATION

Acute toxicity

| | | |
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| Oral | : | LD50/oral/rat>5000 mg/kg |
| Dermal | : | The result of testing on rabbits showed this material to be non-toxic even at high dose levels. |
| Inhalation | : | The product is not expected to be toxic by inhalation. |

Irritation

| | | |
|------|---|--|
| Skin | : | The result of testing on rabbits showed this material to be non-irritating to the skin. |
| Eyes | : | Testing conducted according to the Draize technique showed the material produces no corneal or iridial effects and only slight transitory conjunctival effects similar to those which all granular materials have on conjunctivae. |

Sensitization : The results of testing on guinea pigs showed this material to be non-sensitizing

Chronic toxicity : A two-year feeding study on rats did not reveal adverse health effects. A one-year feeding study on dogs did not reveal adverse health effects.

12) ECOLOGICAL INFORMATION

Ecotoxicity

| | | |
|-------|---|--|
| Fish | : | LC50/Fathead minnows/96h>1000mg/l |
| Algae | : | EC 50 / Selenastrum capricornutum /96h >500 mg/l |

Environmental fate

| | | |
|-------------------------------|---|---|
| Bioaccumulation | : | The product is not expected to bioaccumulate. |
| Degradability/ Persistence | : | Readily biodegradable |

13) DISPOSAL CONSIDERATIONS

Waster from residues / unused products : In accordance with local and national regulations.

Contaminated packaging : Rinse empty containers with water and use the rinse water to prepare working solution. Can be land filled or incinerated, in compliance with local regulations.

14) TRANSPORTATION INFORMATION

Ensure absence of damage and leaks in containers, and stack such that there is no impact, tumbling, drop and crack. Ensure there is no collapsing load. Follow relevant regulations for transportation.

15) REGULATORY INFORMATION

Not Applicable.

16) OTHER INFORMATION

The information in this document is compiled from information maintained by M/S AQUANOMICS SYSTEMS LIMITED. The data in this MSDS were prepared based on the currently available data and information assuming conditions of common handling for industrial use. No guarantee, however, is implied directly with regard to the numerical values of contents, physico-chemical properties, hazards & toxicity, etc., data or evaluation. As the toxicity of chemical products cannot be predicted, the users are advised to adopt extreme care while handling. The users should use this information with their own responsibility and adopt appropriate safety measures based on the actual use conditions. Follow special handling; follow new safety measures and handle.