

GPS Safety Summary Disodium hexafluorosilicate

Reference number: AIL-GPS-110 Issue date: 06/03/2025 Version: 1.0 CL-4: PUBLIC

1. General Statements

Disodium hexafluorosilicate is a White crystalline or powder solid. It is partly soluble in cold water; insoluble alcohol. It is Non-combustible substance. Slightly soluble in water. Acute or chronic health hazards result from the substance. The substance is hazardous to the aquatic environment.

2. Chemical identification.

Name :Disodium hexafluorosilicate

CAS number(s) :16893-85-9 EC number :240-934-8 Molecular formula :Na2SiF6

Structure :

3. Uses and Benefits

It is Used to adjust fluoride levels in drinking water. Acts as a whitening agent. Serves as a flux in metal processing. Utilized as an insecticide and wood preservative

4. Physical / chemical properties

Property	Value	
Physical state :	Solid	
Colour :	White	
Odour :	Odourless	
pH:	NDA	
Melting point :	Decomposes	
Boiling point :	NA	
Flash point :	NA	
Density:	2.7 g/cm3	
Solubility in Water:	Slightly soluble in water.	

5. Health Effects

Effect Assessment	Result
	1

GPS Safety Summary

Disodium hexafluorosilicate

CL-4:PUBLIC

Acute toxicity (Oral / inhalation / dermal)	Toxic if swallowed, in contact with skin or if inhaled
Irritation / corrosion Skin / eye/ respiratory tract	NA
Respiratory or skin sensitisation	NA
Toxicity after repeated exposure Oral / inhalation / dermal	NA
Genotoxicity / Mutagenicity	NA
Carcinogenicity	NA
Toxicity for reproduction	NA

6. Environmental Effects

Effect Assessment	Result
Aquatic toxicity	No
Fate and behavior	Result
Persistence and degradability	Not rapidly degradable
Bioaccumulative potential	No additional information available

7. Exposure

Human health

Disodium hexafluorosilicate is Toxic if swallowed, in contact with skin or if inhaled. The main intake pathway for disodium hexafluorosilicate (Na-H.) in the workplace is expected to be via inhalation. Outside the workplace, very small amounts could be taken in via the gastrointestinal tract as a result of the use of Na-H. (or fluorosilicic acid) as a fluoridation agent for drinking water or its use for pest control. The exposure must be kept as minimum as possible by the use of appropriate risk management measures suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers. Careless handling or accidental spillage of the chemical could result in exposure to potentially hazardous levels of chemicals. Industrial workers should ensure that they follow the advice found in the extended safety data sheet (SDS).

Environment:

Care should be taken to avoid releases of these products to sewage, drainage systems and water bodies. Spillage shall be quickly collected in the event of an accidental release. More information about release measures and accidental release measures are available in the extended safety data sheet.

GPS Safety Summary

Disodium hexafluorosilicate

CL-4:PUBLIC

8. Risk Management Recommendations

Human health measures.

Organizational	A basic standard of occupational hygiene is recommended. Ensure operatives are well informed of the hazards and trained to minimise exposures. Ensure regular inspection and maintenance of equipment and machines. Handle and store according to the indications of the Safety Data Sheet.			
Protection	Eye protection:	Safety glasses		
	Skin and body protection:	Wear suitable protective clothing		
	Respiratory protection:	In case of insufficient ventilation, wear suitable respiratory equipment.		
Engineering controls	Ensure good ventilation of the work station			
Environment protective measures				
Avoid release to the environment				

9. First-aid measures

First-aid measures after inhalation:Remove the person to fresh air and keep them comfortable for breathing. Take medical advice.

First-aid measures after skin contact: Wash skin with plenty of water. Remove/Take off immediately all contaminated clothing.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion: Rinse mouth. Call a physician immediately.

10. Fire-fighting measures

Extinguishing media

Suitable extinguishing media: Water spray. Dry powder. Foam.

Unsuitable extinguishing media :Do not use a heavy water stream.

Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire: Toxic fumes may be released.

Advice for firefighters

Precautionary measures fire: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighbourhood close doors and windows.

GPS Safety Summary Disodium hexafluorosilicate

CL-4:PUBLIC

Firefighting instructions: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.

11. Accidental release measures

Protective equipment :Wear recommended personal protective equipment.

Environmental precautions: Avoid release to the environment.

For containment: Using a clean shovel, put the material in a dry container and cover without compressing it.

12. Disposal consideration

Regional legislation (waste): Disposal must be done according to official regulations.

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations: Disposal must be done according to official regulations.

13. Handling and storage

Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray.

Hygiene measures: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

GPS Safety Summary Disodium hexafluorosilicate

CL-4:PUBLIC

14. Classification and Labeling

Hazard pictograms (GHS US)

Signal word (GHS US) Hazard statements (GHS US) Precautionary statements (GHS US)

: H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled

: P261 - Avoid breathing dust, fume, gas, mist, vapours, spray. P264 - Wash hands, forearms and face 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, eye protection, face protection, and hearing

protection.

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

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

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.

P311 - Call a poison center or doctor.

P312 - Call a poison center or doctor if you feel unwell.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P330 - Rinse mouth.

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

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents and/or container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulations.

15. Conclusion

Disodium hexafluorosilicate is a White crystalline or powder solid. Toxic if swallowed, in contact with skin or if inhaled. The substance is non-combustible. Select fire and explosion prevention measures according to the other used substance. The exposure must be kept as minimum as possible by the use of appropriate risk management measures as suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers.

16. Contact Information within company

Manufacturer

Aarti Industries Limited Udyog Kshetra, 2nd Floor, Mulund Goregaon Link Road, Mulund (West) 400080 Mumbai - India T+91-22-6797-6666 - F+91-22-2565 3234 info@aarti-industries.com - www.aarti-industries.com

This GPS safety summary is intended to give general information about the health, safety and environment and not intended to provide in-depth details. To obtain the most accurate and current information, consult the appropriate Safety Data Sheet (SDS) prior to use of the material named herein.