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Aluminium Fluoride CAS No 7784-18-1	MATERIAL SAFETY DATA SHEET SDS/MSDS

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : **Aluminium Fluoride**

CAS-No. : 7784-18-1

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet

Company : Central Drug House (P) Ltd
DGL 128-129, DLF The Galleria,
Mayur Vihar Phase 1 Extension,
New Delhi-110091
INDIA

Telephone : +91 11 49404040
Email : care@cdhfinechemical.com

1.4 Emergency telephone number

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram	none
Signal word	none
Hazard statement(s)	none
Precautionary statement(s)	none
Supplemental Hazard Statements	none

Safety data sheet available on request.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Strong hydrogen fluoride-releaser

SECTION 3: Composition/information on ingredients

3.1 Substances

Formula	:	AlF3 + H2O
Molecular weight	:	83.98 g/mol
CAS-No.	:	7784-18-1
EC-No.	:	232-051-1

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
Aluminium fluoride		
CAS-No. 7784-18-1		<= 100 %
EC-No. 232-051-1		

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.Hydrofluoric (HF) acid burns require immediate and specialized first aid a hours depending on the concentration of HF. After decontamination with wa penetration/absorption of the fluoride ion. Treatment should be directed exposure. Skin exposures can be treated with a 2.5% calcium gluconate gel exposures may require subcutaneous calcium gluconate except for digital a technique, due to the potential for tissue injury from increased pressure and should be considered when undergoing decontamination. Prevention of a obtained by giving milk, chewable calcium carbonate tablets or Milk of Ma hypocalcemia, hypomagnesemia and cardiac arrhythmias should be monitored

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.First treatment with calcium gluconate paste.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Hydrogen fluoride, Aluminum oxide

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Do not store in glass

Storage class (TRGS 510): Non Combustible Solids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance le (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: powder
b)	Odour	odourless
c)	Odour Threshold	No data available
d)	pH	5.9 at 20 °C
e)	Melting point/freezing point	Melting point/range: 1,290 °C
f)	Initial boiling point and boiling range	ca.1,537 °C
g)	Flash point	Not applicable
h)	Evaporation rate	Not applicable
i)	Flammability (solid, gas)	The product is not flammable.
j)	Upper/lower flammability or explosive limits	No data available
k)	Vapour pressure	No data available
l)	Vapour density	No data available
m)	Relative density	3.1 g/cm3 at 25 °C
n)	Water solubility	soluble
o)	Partition coefficient: n-octanol/water	No data available
p)	Auto-ignition temperature	Not applicable
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	Not explosive
t)	Oxidizing properties	The substance or mixture is not classified as oxidizing.

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Reacts dangerously with glass.

10.5 Incompatible materials

acids, Sodium/sodium oxides, Potassiumglass

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Hydrogen fluoride, Aluminum oxide
Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - Rat - > 2,000 mg/kg(Aluminium fluoride)
(Fixed Dose Method)
LC50 Inhalation - Rat - 4 h - > 0.53 mg/l(Aluminium fluoride)
(OECD Test Guideline 403)
Remarks: No adverse effect has been observed in acute toxicity tests.

Skin corrosion/irritation
Skin - Rabbit(Aluminium fluoride)
Result: No skin irritation
(OECD Test Guideline 404)

Serious eye damage/eye irritation
Eyes - Rabbit(Aluminium fluoride)
Result: No eye irritation
(OECD Test Guideline 405)

Respiratory or skin sensitisation
in vivo assay - Mouse(Aluminium fluoride)
Result: Did not cause sensitisation on laboratory animals.
(OECD Test Guideline 429)

Germ cell mutagenicity

No data available(Aluminium fluoride)

Carcinogenicity

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Aluminium fluoride)

Reproductive toxicity
No data available(Aluminium fluoride)

Specific target organ toxicity - single exposure
No data available(Aluminium fluoride)

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available(Aluminium fluoride)

Additional Information
RTECS: BD0725000
Fluoride ion can reduce serum calcium levels possibly causing fatal hypocalcemia.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated., Salivation, Nausea, Vomiting, Fever(Aluminium fluoride)

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish	LC50 - Danio rerio (zebra fish) - > 10 mg/l - 96 h(Aluminium fluoride) (OECD Test Guideline 203) Remarks: No toxicity at the limit of solubility
Toxicity to daphnia and other aquatic invertebrates	LC50 - Daphnia magna (Water flea) - > 10 mg/l - 48 h(Aluminium fluoride) (OECD Test Guideline 202) Remarks: No toxicity at the limit of solubility
Toxicity to algae	LC50 - Chlorella vulgaris (Fresh water algae) - 8.4 mg/l - 3 d(Aluminium fluoride)

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available(Aluminium fluoride)

12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects
No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number
ADR/RID: - IMDG: - IATA: -

14.2 UN proper shipping name
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

14.3 Transport hazard class(es)
ADR/RID: - IMDG: - IATA: -

14.4 Packaging group
ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user
No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Further information
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.