

Material Safety Data Sheet

Issued: 2007-06-08

Replaces earlier issue: 2005-12-19

ALUSPAR

1. Identification of the substance and of the company

Product name	Aluspar
Chemical name	Calcium fluoride
Synonyms	Calcium fluoride, Fluorite, Fluorspar, Blue John
Field of application	Raw material in the chemical industry
Chemical formula	CaF ₂
Producer	ALUFLUOR AB
Address	Box 902
Postal address	251 09 Helsingborg
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Emergencies within Sweden	020 - 99 60 00 (Kemiakuten)
Emergencies outside Sweden	+46 - (0) 8 - 33 12 31 (ERC Emergency Response Centre for the Swedish Chemical Industry)

2. Composition/information on ingredients

Nr	Name of compound	CAS-number	EINECS-number	Weight-%)	Marking, R- och S-phrases
1	Calcium fluoride	7789-75-5	232-188-7	55-65	No R- or S-phrases
2	Aluminium fluoride	7784-18-1	232-051-1	4-6	No R or S-phrases
3	Silicon dioxide	7631-86-9	231-545-4	4-6	No R- or S-phrases

3. Hazardous properties

The product is not classified as hazardous, but as all dusts it may cause irritation of breathing tracts and eyes.

4. First-aid measures

Inhalation

Remove person to fresh air and make the person blow his nose carefully and breathe fresh air.

Skin contact

Undress contaminated clothes and shoes and wash exposed skin with soap and water.

Eye contact

Remove contact lenses, if any and rinse eyes immediately with plenty of water, keeping the eyelids well open. Seek medical attention.

Ingestion

Dilute immediately by drinking large amounts of water or milk. Seek medical attention.

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5. Fire-fighting measures

Fire extinguishing media

The product is not flammable. The extinguishing media can be chosen depending on the surrounding fire.

Fire- and explosion hazards

The compound can develop toxic fluoride containing gases during fire.

Special protective equipment during fire

Respiratory protection equipment should be used.

6. Accidental release measures

Personal precautions

Avoid eye and skin contact.

Avoid inhalation of dust.

Breathing protection with particle filter P3 as well as protective glasses should be used for dust handling.

Environment precautions

Avoid outlet to waste through embankment. Collect spillage into suitable, sealed containers.

Methods for cleaning up

Clean up using dry procedures and collect spills in a sealed container.

7. Handling and storage

Handling

Avoid dusting.

Storage

Store in a dry and if possible sealed area.

8. Exposure controls/personal protection

Preventive measures

Provide sufficient ventilation. Emergency showers and eye bottles must be provided.

Avoid dusty handling

Respiratory protection

Respiratory protection with particle filter P3 to be used under dusty conditions.

Hand protection

Wear protective gloves of textile/leather.

Eye protection

Wear protective goggles under dusty conditions.

Skin protection

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9. Physical and chemical properties

The product is hard to dissolve in water. The product is affected by strong mineral acids.

Appearance	Fixed form, powder
Colour	White-light brown
Odour	Odourless

Melting point [°C]	1400	Density [g/cm³]	3,18
Bulk density [g/cm³]	0,6-0,7	Boiling point [°C]	2500
Solubility in water	0,0016 weight-% at 18 °C	pH (1 %- suspension in water)	7-8
Molecular weight[g/mol]	60,08		

10. Stability and reactivity

Materials to avoid

During contact with strong mineral acids (e.g. sulphuric acid), the product may develop toxic hydrofluoric gases.

Hazardous decomposition products

The product may develop toxic hydrofluoric gases at temperatures above 1000 °C in the presence of moist air.

11. Toxicological information

LD₅₀ (oral)	rat	4250 mg/kg
TD_{LO} (oral)	rat	44 mg/kg

Other toxicological information

Inorganic fluorides are mostly toxic and irritating. Calcium fluoride is almost insoluble and therefore has a lower immediate hazard than soluble fluorides, e.g. sodium fluorides and hydrogen fluoride.

General hazards

The product may irritate the respiratory tracts, skin and eyes.

Inhalation

Inhalation of calcium fluoride dust may physically irritate the respiratory tract.

The threshold limit value for fluorides, including hydrogen fluoride (reported as F) (1987) = 2 mg/m³.

Skin contact

The product may cause skin irritation during a longer period of skin contact.

Eye contact

Physical irritation.

Ingestion

Ingestion may cause irritation in stomach and indisposition.

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12. Ecological information

Ecotoxicity

The product has no ecotoxicological effects

Calcium fluoride appears in the nature as the mineral fluorspar.

13. Disposal considerations

Disposal of product residues

The remaining product must be disposed according to the local/national legislation.

14. Transport information

The product is not classified as dangerous goods and therefore does not need to comply with the legislation for dangerous goods.

15. Regulatory information

Classification

No classification is applicable for this product.. See also Alufleur's MSDS for Aluminium fluoride.

Compounds

Calcium fluoride (55-65 weight-%)

Aluminium fluoride (4-weight-%)

Silicon dioxide (4-6 weight-%)

16. Other information

MSDS revised 2007-02-12.

Revisions are marked with a cross in the box at each headline.

This Material Safety Data Sheet replaces earlier issue dated 2005-12-19.

R-phrases

No R-phrases applicable.

S-phrases

No S-phrases applicable.