

MATERIAL SAFETY DATA SHEET

SECTION I.- COMPANY IDENTIFICATION

MANUFACTURER: <p style="text-align: center;">Mexichem Fluor</p>	PHONE HEALTH AND SAFETY: <p style="text-align: center;">CHEMTREC 1-800-242-9300 EMERGENCY 011-52-868-811-1005</p>
Address: <p style="text-align: center;">Mexichem Fluor Matamoros Carr. A Reynosa K.m 4.5 s/n Ejido _Las Rusias H. Matamoros , Tamaulipas</p>	

SECTION II.- CHEMICAL PRODUCT

Commercial name: <p style="text-align: center;">Aluminum trifluoride</p>	Generic Name: <p style="text-align: center;">Aluminum Fluoride</p>
Chemical Family : <p style="text-align: center;">Fluoride Products</p>	Synonymous: <p style="text-align: center;">Fluo-Flux® *SRP-1*SRP-8</p>
Other information <p>October the 13th 2012 Revision</p>	

SECTION III.- COMPOSITION

COMPOSITION	CAS-NO	EC-NO	% CONC.	CH	CF	CE	R-phrases	NOTE
Aluminum Oxide	1344-28-1	215-691-6	8 - 10					
Aluminum fluoride	7784-18-1	232-051-1	90 - 92				-	

EXPLANATION:

CF/CH/CE=Classification fire/-health/-environment, Tx=Very Toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=Irritating, IK=No classification required, E=Explosive, O=Oxidizing, Fx=Extremely flammable, F=Highly flammable, N=Danger for environment, M=Genotoxic, A=Sensitization, K=Carcinogen, R=Causes birth defects.

SECTION IV.- HAZARDS IDENTIFICATION

MORE INFORMATION:

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

SECTION V.- FIRST AID MEASURES

INHALATION:

Remove person to fresh air.

SKIN CONTACT:

Rinse with plenty of water. Wash exposed area thoroughly with soap and water.

EYE CONTACT:

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.

SECTION VI.- FIRE FIGHTING MEASURES

SUITABLE EXTINGUISH MEDIA:

The extinguishing media can be chosen depending on the surrounding fire.

UNSUITABLE EXTINGUISH MEDIA:

The product is not flammable.

FIRE AND EXPLOSION HAZARDS:

The compound can develop toxic fluoride containing gases when heated above 600 °C during fire.

PERSONAL PROTECTION WHEN FIREFIGHTING:

Wear self-contained respiratory protective device. Wear fully protective suit.

SECTION VII.- ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Avoid dusting. Wear personal protective equipment for dust handling.

ENVIRONMENTAL PRECAUTIONS:

Collect spillage into suitable, sealed containers.

CLEANING MEASURES:

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

Disposal must be done according to national legislation.

SECTION VIII.- HANDLING AND STORAGE**HANDLING:**

Avoid dusting. Make sure that the ventilation is sufficient.
Eating and smoking should be avoided during handling. Apply good hygiene.

STORAGE:

Store in a dry, well-ventilated area and protect product containers from physical damage.
Do not store close to products destined for human or animal consumption.

SECTION IX.- EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPOSITION	OEL	unit	PPM	Note
Aluminum Oxide	10	mg/m ³		

EXPOSURE CONTROL:

Provide sufficient ventilation. If this measure is not sufficient to keep the particle concentration below the exposure limit value, it will be necessary to use suitable respiratory protection apparatus.

RESPIRATORY PROTECTION:

If the conditions of use generate dust, use approved respiratory protection with filter P2, P3 or an air-stream helmet.

EYE PROTECTION:

Never wear contact lenses in the work area since it may absorb product irritating the ocular globe. Safety glasses with full side shields or goggles are recommended.

HAND PROTECTION:

Wear protective gloves of textile/leather.

SKIN PROTECTION:

During normal conditions, wear light protective clothing with long sleeves and safety boots/shoes.

MORE INFORMATION:

TLV = 0,6 mg/m³ calculated as F (Norway)

SECTION X.- PHYSICAL AND CHEMICAL PROPERTIES

FORM:	Powder	ODOUR:	Odorless
COLOUR:	White	SOLUBILITY:	
MELTING/FREEZING POINT:		BOILING POINT:	not applicable
DENSITY:	0,77 – 1.599 g/cm ³	FLASH POINT:	not applicable
EXPLOSION LIMITS LEL-UEL %:		PH (CONCENTRATE.):	4,5-5,0 in sat. sol
SOLUBILITY IN WATER:	5,3-9,4 mg/l at 25 °C	MOL MASS:	
VAPOUR PRESSURE:	1,3 hPa (at 1238 °C)	VISCOSITY:	
SATURATION CONC.:		AUTO IGNITION TEMP:	not self-igniting

ALUMINUM FLUORIDE

DECOMPOSITION TEMP.:		SMELL LIMIT:	
PH (SOLUTION):		REL.VAPOUR DENSITY (AIR=1):	
SUBLIMATION TEMP.:	1278°C		

SECTION XI.- STABILITY AND REACTIVITY

STABILITY:

The product is stable under normal conditions. Avoid high temperatures (above 600 °C when dry, 300 °C in the presence of water), unless when in professional use.

REACTIVITY:

Aluminum fluoride may dissolve slowly in strong sulfuric acid with the liberation of hydrogen fluoride and in strong aqueous alkali with the formation of aluminate. Aluminum fluoride is slowly attacked by fused alkali, with formation of fluoride and aluminate.

HAZARDOUS DECOMPOSITION PRODUCTS:

The product may develop toxic hydrogen fluoride gas when heated until decomposition, especially in the presence of water.

SECTION XII.- TOXICOLOGICAL INFORMATION

INHALATION:

Inhalation of aluminum fluoride dust irritates the respiratory tract. An acute inhalation study in rats have shown that the LC50 (4-hour) for AlF₃ is in excess of 0.530 mg/l in air, the maximum practicable concentration.

SKIN CONTACT

The product is not an irritant, but may cause skin irritation when wet.
The product has been tested for skin irritation. No skin reactions were observed during the test.

EYE CONTACT:

Dust may irritate the eyes.
The product has been tested for eye irritation. Chemosis, redness and discharge occurred, but 72 hours after termination of exposure no abnormalities were observed.

INGESTION:

Ingestion may cause irritation in stomach or gastro-intestinal system.
LD50 (oral) rat >2000 mg/kg.

SECTION XIII.- ECOLOGICAL INFORMATION

MOBILITY:

The product is almost insoluble in water. See further chapter 9: "Physical and chemical properties"

BIODEGRADABILITY:

Due to its low solubility, the product may persist for a long period of time.

ACCUMULATION:

Fluoride ions may be accumulated in bone substance.

ECOTOXICITY:

The compound is not toxic to Zebra fish.

The compound has been tested for growth inhibition on algae, but no EC50 (72 h) value could be determined due to the low solubility of the compound.

The compound is not toxic to Daphnia Magna

SECTION XIV.- DISPOSAL

DECONTAMINATION/DISPOSAL:

Disposal of product residues:

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

The product manufacturer can provide advice on disposal.

Disposal of packaging's:

Disposal of unclaimed packaging's must be made according to official/national regulations. The product manufacturer can provide advice on disposal.

SECTION XV. TRANSPORT INFORMATION

ADR(Road)			
UN NO:		CLASS:	
LABEL:		DANG. GOODS:	
PACKING GROUP:		HAZ. ID NO:	
RID(Railway)			
UN NO:		CLASS:	
HAZ. ID NO:		DANG. GOODS:	
PACKING GROUP:			
IMDG(SEA)			
UN NO:		CLASS:	
LABEL:		DANG. GOODS:	
EMS:		PACKING GROUP:	
MARINE POLL:		SUB.RISK:	
IATA(Airplane)			
UN NO:		CLASS:	
LABEL:		DANG. GOODS:	
SUB.RISK:		PACKING GROUP:	

MORE INFORMATION:

The product is not classified as dangerous goods and therefore does not need to comply with ADR, RID, IMDG and IATA regulations.

This product should be kept away from foodstuffs and pharmaceuticals.

SECTION XVI.- REGULATORY INFORMATION**R-PHRASES:**

No R-phrases applicable.

S-PHRASES:

No S-phrases applicable.

REFERENCES:

1. "JANAF Thermochemical Tables", 2nd. ed. Natl. Bur. Standards, NSRDS-NBS 37, 1971.
2. Test report, "Solubility of AlF₃", DHI Water & Environment, Annette Behrens, 2002.
3. "AlF₃ - Acute oral toxicity study in the rat", Scantox report Lab No. 41864, Lise S Bollen, 2001.
4. "AlF₃ - Acute Eye Irritation Study In the Rabbit", Scantox report, Lab. No. 44147, Lise S Bollen, 2001.
5. "AlF₃ - Primary Skin Irritation Study in the Rabbit", Scantox report, Lab. No. 43799, Lise S Bollen, 2001.
6. Test report 16/01, "Aluminum fluoride (AlF₃), Fish, Acute Toxicity Test", Toxicon, Thomas Olsson, 2001.
7. Test report 25/01, "Aluminum fluoride (AlF₃), Algae, Growth Inhibition Test", Toxicon, Thomas Olsson, 2001.
8. Test report 26/01, "Aluminum fluoride (AlF₃), Daphnia, Immobilization Test", Toxicon, Thomas Olsson, 2001.
9. IUCLID Data set, 2001.
10. "AlF₃ - Acute (four - hour) Inhalation Study in Rats", Huntingdon Life Sciences, Derek W. Coombs, 2002.
11. "WHO Environmental Health Criteria 36: Fluorine and fluorides", Geneva, 1984.

MORE INFORMATION:

No classification is applicable for this product.

Revision no. 1: changed composition in section 2. No changes in classification of the product.