MATERIAL SAFETY DATA SHEET

Ammonium fluoride

SECTION 1: Identification of the substance/mixture and of the company/undertaking			
1.1	**Product identifiers**		
	Product name	:	Ammonium fluoride
	Brand	:	LABORT
	CAS-No.	:	12125-01-8
1.2	**Relevant identified uses of the substance or mixture and uses advised against**		
	Identified uses	:	Laboratory chemicals, Industrial
1.3	**Details of the supplier of the safety data sheet**		
	LABORT FINE CHEM PVT LTD. 703-704 ICON BUSINESS CENTRE, OPP. CENTRAL MALL, NR. VALENTINE CINEMA, DUMAS ROAD, SURAT - 395007, (GUJARAT), INDIA. **PH:** 0091-261-2725761; 2725388 **FAX:** 0091-261-2725388 **E MAIL:** info@laboratorychemical.net **WEBSITE:** www.laboratorychemical.net		
1.4	**Emergency telephone number**		
	Emergency Phone #	:	**091-261-2725388**
SECTION 2: Hazards identification			
2.1	**Classification of the substance or mixture**		
	Classification according to Regulation (EC) No 1272/2008 Acute toxicity, Oral (Category 3), H301 Acute toxicity, Inhalation (Category 3), H331 Acute toxicity, Dermal (Category 3), H311 For the full text of the H-Statements mentioned in this Section, see Section 16.		
2.2	**Label elements**		
	Labelling according Regulation (EC) No 1272/2008		
	Pictogram	:	
	Signal word	:	Danger
	Hazard statement(s)		
	H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled.		
	Precautionary statement(s)		

	P280 Wear protective gloves/ protective clothing. P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth. P302 + P352 + P312 IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ doctor if you feel unwell. P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.
	Supplemental Hazard statements
	None
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	**:**	H4FN
	Molecular weight	**:**	37,04 g/mol
	CAS-No.	**:**	12125-01-8
	EC-No.	**:**	235-185-9

	Hazardous ingredients according to Regulation (EC) No 1272/2008		
	Component	Classification	Concentration
	Ammonium fluoride		
	Acute Tox. 3; H301, H331,H311		<= 100 %

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 and medical treatment. Symptoms may be delayed up to 24 hours depending on the concentration of HF. After decontamination with water, further damage can occur due to penetration/absorption of the fluoride ion. Treatment should be directed toward binding the fluoride ion as well as the effects of exposure. Skin exposures can be treated with a 2.5% calcium gluconate gel repeated until burning ceases. More serious skin exposures may require subcutaneous calcium gluconate except for digital areas unless the physician is experienced in this technique, due to the potential for tissue injury from increased pressure. Absorption can readily occur through the subungual areas and should be considered when undergoing decontamination. Prevention of absorption of the fluoride ion in cases of ingestion can be obtained by giving milk, chewable calcium carbonate tablets or Milk of Magnesia to conscious victims. Conditions such as hypocalcemia, hypomagnesemia and cardiac arrhythmias should be monitored for, since they can occur after exposure.
	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. Take victim immediately to hospital. 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** Nitrogen oxides (NOx), Hydrogen fluoride Not combustible..		
5.3	**Advice for fire fighters** 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** Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.		
6.2	**Environmental precautions** Prevent further leakage or spillage if safe to do so. 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 contact with skin and eyes. Avoid inhalation of vapour or mist. Filled under nitrogen. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge. For precautions see section 2.2.		
7.2	**Conditions for safe storage, including any incompatibilities** Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Hygroscopic. Do not store in glass		
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**		
	Components with workplace control parameters		
8.2	**Exposure control** **Appropriate engineering controls** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.		
	Eye/face protection	**:**	Face shield and safety glasses 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. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.
	Body Protection	:	Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
	Respiratory protection	:	Where risk assessment shows air-purifying respirators are appropriate use a fullface particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
	Control of environmental exposure		Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1	**Information on basic physical and chemical properties**	
	Appearance Form	Crystals with lumps
	Colour	white
	Odour	ammoniacal
	Odour Threshold	No data available
	pH	ca.6 at 50 g/l at 20 °C

	Melting point/freezing point	Melting point: (sublimed)
	Initial boiling point and boiling range	Not applicable
	Flash point	does not flash
	Evaporation rate	No data available
	Flammability (solid, gas)	The product is not flammable.
	Upper/lower flammability or explosive limits	No data available
	Vapour pressure	No data available
	Vapour density	No data available
	Relative density	ca.1,01 g/cm3 at 20 °C
	Water solubility	820 g/l at 20 °C
	Partition coefficient: noctanol/water	No data available
	Auto-ignition temperature	No data available
	Decomposition temperature	ca.100 °C -
	Viscosity	No data available
	Explosive properties	No data available
	Oxidizing properties	No data available
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** glass
10.6	**Hazardous decomposition products** Hazardous decomposition products formed under fire conditions. - Nitrogen oxides (NOx), Hydrogen fluoride Other decomposition products - No data available In the event of fire: see section 5
SECTION 11: Toxicological information	
11.1	**Acute toxicity:** No data available. **Skin corrosion/irritation:** No data available. **Serious eye damage/eye irritation:** No data available. **Respiratory or skin sensitisation:** No data available. **Germ cell mutagenicity:**

	Ames test Salmonella typhimurium Result: negative (National Toxicology Program). **Carcinogenicity:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. **Reproductive toxicity** No data available. **Specific target organ toxicity - single exposure** No data available. **Specific target organ toxicity - repeated exposure** No data available. **Aspiration hazard** No data available. **Additional Information** RTECS: BQ6300000 Fluoride ion can reduce serum calcium levels possibly causing fatal hypocalcemia. Salivation, Nausea, Vomiting, Fever, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
SECTION 12: Ecological information	
12.1	**Toxicity** No data available
12.2	**Persistence and degradability** No data available
12.3	**Bioaccumulative potential** No data available
12.4	**Mobility in soil** No data available
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** Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. **Contaminated packaging** Dispose of as unused product.
SECTION 14: Transport information	
14.1	**UN number**
	ADR/RID: 2505 | IMDG: 2505 | IATA: 2505
14.2	**UN proper shipping name**
	ADR/RID: AMMONIUM FLUORIDE IMDG: AMMONIUM FLUORIDE

	IATA: AMMONIUM FLUORIDE		
14.3	**Transport hazard class(es)**		
	ADR/RID: 6.1	IMDG: 6.1	IATA: 6.1
14.4	**Packaging group**		
	ADR/RID: III	IMDG: III	IATA: III
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. **Authorisations and/or restrictions on use** REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Ammonium fluoride		
15.2	**Chemical safety assessment** For this product a chemical safety assessment was not carried out		
SECTION 16: Other information			
	LABORT FINE CHEM PVT LTD. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. LABORT FINE CHEM PVT LTD. Makes no representations or warranties, either express or implied, including without limitation any warranties or merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, LABORT FINE CHEM PVT LTD. will not be responsible for damages resulting from use of or reliance upon this information. Revised on: 21/01/2021 Revision: 01		