



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

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MSDS No. SS 535
Effective Date May 3, 1999

SECTION V HEALTH HAZARD DATA

SS 535

Threshold Limited Value RTECS No. WBO350000 Toxicity data: orl-rat LD50: 64mg/kg, orl-human LDLo 75 mg/kg. OSHA/TWA: 2.5 mg/m³ (Fluoride as F).

Effects of Overexposure **TARGET ORGANS AFFECTED:** Bones, kidneys. **INHALATION:** Irritating to mucous membranes and toxic when inhaled. Chills, labored breathing, fever, unproductive cough. **SKIN:** May cause dermatitis if exposed to dust or fumes. **EYES:** Causes eye irritation. **INGESTION:** Severe vomiting, abdominal distress, diarrhea, stupor, weakness. Over exposure may cause fluorosis, a condition affecting bones and teeth.

Emergency and First Aid Procedures **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. **EYES:** Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get prompt medical attention. **SKIN:** Flush with soap and water. If irritation develops, get medical attention. **INGESTION:** If swallowed, of conscious, immediately give several glasses of milk or other calcium containing liquid if available, otherwise give large amounts of water. Get immediate medical attention. Never give anything by mouth to an unconscious person. **NOTE TO PHYSICIAN:** Forms hydrofluoric acid upon contact with acid, such as stomach acid.

SECTION VI REACTIVITY DATA

Stability	Unstable		Conditions to Avoid	Moisture, extreme temperature and heat.
	Stable	X		

Incompatibility (Materials to Avoid) Acids (reacts with acids to form corrosive and toxic hydrofluoric acid). Water forms solution corrosive to many materials. including glass.

Hazardous Decomposition Products Hydrogen Fluoride. The possibility of toxic/hazardous fumes of fluorine and sodium oxide should be considered.

Hazardous Polymerization		Conditions to Avoid	Not applicable.
May Occur	Will Not Occur		
	X		

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled Recover for use if not contaminated. Provide adequate ventilation. Wear suitable protective equipment. Sweep up and place in a suitable container for reclamation or disposal, avoid creating dusty conditions. Flush spill area with water.

Waste Disposal Method Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. Dispose of container and any residue according to local regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) Not required in normal laboratory handling. If dusty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved dust mask or respirator.

Ventilation	Local Exhaust	Recommended.	Special	No.
	Mechanical (General)	Recommended.	Other	Adequate to maintain below exposure limit.

Protective Gloves	Rubber.	Eye Protection	Chemical safety glasses.
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Other Protective Equipment	Goggles, smock, apron, eye wash station, proper gloves, ventilation hood.
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SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing Store in a cool, dry place away from acids and acid fumes. Wash thoroughly after handling.
Keep container tightly closed when not in use.

Other Precautions Read label on container before using. Do not wear contact lenses when working with chemicals.
Avoid inhalation and ingestion. Use adequate ventilation. Avoid contact with skin or eyes. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision No. 4	Date 5/3/99	Approved	Michael Raszeja	Chemical Safety Coordinator	MR
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The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. * Hazardous Materials Industrial Standards. Printed on recycled paper.

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	SODIUM FLUORIDE	 <p>CHEMTREC 800-424-9300 Day 716-226-6177</p> <p>NFPA HAZARD RATING LEAST SLIGHT MODERATE HIGH EXTREME 0 1 2 3 4</p> <p>HMIS * Health 3 Fire 0 Reactivity 1</p>
Chemical Synonyms	Sodium Fluoride	
Formula	NaF	
Unit Size	up to 2.5 Kg.	
C.A.S. No.	7681-49-4	

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Sodium Fluoride	100%	See Section V

DANGER! POISON!  **MAY BE FATAL IF SWALLOWED.**

HARMFUL IF INHALED. CAUSES EYE IRRITATION.

SECTION III PHYSICAL DATA

Melting Point (°F)	993°C (1819°F)	Specific Gravity (H ₂ O = 1)	2.78 g/cc
Boiling Point (°F)	1704°C (3099°F)	Percent Volatile by Volume (%)	Negligible as solid.
Vapor Pressure (mm Hg)	1mm at 1077°C	Evaporation Rate (=1)	N/A
Vapor Density (Air=1)	1.45		
Solubility in Water	4 g/100g H ₂ O (0°C). 5g/100g H ₂ O (100°C)		
Appearance & Odor	White crystalline powder; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-Combustible (NA)	Flammable Limits in Air % by Volume	N/A	Lower	Upper
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Extinguisher Media Water fog; dry chemical (ABC); carbon dioxide (CO₂)

SPECIAL FIREFIGHTING PROCEDURES

If fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Dust prevents a respiratory and eye hazard. Moderately water soluble.

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 154)

UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat may produce hazardous decomposition products; can react vigorously with acid to liberate corrosive and toxic hydrogen fluoride. May form explosive dust mixtures with air.

D.O.T. SODIUM FLUORIDE, 6.1, UN 1690, PG III

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20