

MATERIAL SAFETY DATA SHEET

GENIUM PUBLISHING CORPORATION

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MSDS # 138
SODIUM FLUORIDE

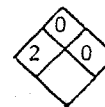
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From Genium's MSDS Collection, to be used as a reference.

SECTION 1. MATERIAL IDENTIFICATION

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MATERIAL NAME: SODIUM FLUORIDE
OTHER DESIGNATIONS: NaF, CAS # 7681-49-4
MANUFACTURER: Available from several suppliers including:
 Allied Corp. Olin Corp.
 Box 2332R 120 Long Ridge Road
 Morristown, NJ 07960 Stamford, CN 06904
 (800) 222-0094 (203) 356-2000



SECTION 2. INGREDIENTS AND HAZARDS

% HAZARD DATA

SODIUM FLUORIDE, NaF	ca 99	8 hr TWA: 2.5 mg/m ³ as F*
		Human, oral: LDLo: 71 mg/kg Rat, oral: LD50: 80 mg/kg Rabbit, eye: 20 mg/24H - Severe irritation

* Current (1985-86) ACGIH TLV and OSHA PEL.

SECTION 3. PHYSICAL DATA

Boiling Point @ 1 atm 1702°C, 3095°F Solubility in water, g/100 cc @ 20°C 4.2
 Melting Point 992°C, 1818°F @ 100°C ... 5.0
 Specific Gravity 2.8 Molecular weight 42
 Vapor pressure, mmHg @ 20°C ca 0
 @ 1077°C 1
APPEARANCE AND ODOR: White powder or granular solid. No odor.

SECTION 4. FIRE AND EXPLOSION DATA

Lower Upper

Flash Point and Method	Autoignition Temp.	Flammability Limits in Air		
Not combustible	N/A	N/A		

EXTINGUISHING MEDIA: Use extinguishing agents appropriate for the surrounding fire.
 Firefighters should wear self-contained breathing apparatus and protective gear to prevent skin and eye contact.

SECTION 5. REACTIVITY DATA

This material is stable under normal storage and handling conditions. It does not undergo hazardous polymerization; there are no hazardous decomposition products.
 Contact with acids cause the formation of hydrogen fluoride (MSDS #6) (toxic and irritating).

SECTION 6. HEALTH HAZARD INFORMATION	TLV 2.5 mg/m ³ , as F
<p>Inhalation of sodium fluoride may cause irritation of the respiratory tract. Long term exposure can result in skeletal abnormalities (fluorosis) characterized by bone densification and calcification of the ligaments of the pelvis and spine. Digestive tract disturbances have also been reported in workers exposed to fluoride. On ingestion, sodium fluoride causes severe gastrointestinal distress with excessive salivation, nausea, vomiting, diarrhea and abdominal pain. Other effects may include muscular weakness, tremors, convulsions, weak pulse and loss of consciousness. Death due to respiratory paralysis may occur. The above symptoms can occur from ingestion of less than one gram. The lethal dose for humans is approximately 5 grams.</p> <p>FIRST AID: <u>EYE CONTACT:</u> Flush eyes including under eyelids with large amounts of water. Obtain medical attention. <u>SKIN CONTACT:</u> Wash contaminated area with soap and plenty of water. If irritation develops, avoid further exposure and seek medical attention. <u>INHALATION:</u> Remove person to fresh air. Obtain medical assistance. <u>INGESTION:</u> Give person a large quantity of milk or water to drink (milk is preferable because of its calcium content.) Induce vomiting and obtain medical assistance immediately. (Do not induce vomiting or give anything by mouth if the person is unconscious.)</p> <p>Medical assistance = Inplant, paramedic, community.</p>	
SECTION 7. SPILL, LEAK AND DISPOSAL PROCEDURES	
<p>Notify safety/environmental personnel of large spills. Provide adequate ventilation, Clean-up personnel should wear protective equipment to prevent inhalation and skin/eye contact. Clean-up spills of solid NaF in a manner that minimizes dust generation, such as vacuuming. Solutions of NaF may be absorbed in inert material such as sand or earth, and placed in a suitable container for disposal. Prevent release of NaF to sewers and waterways.</p> <p>DISPOSAL: Solid material may be disposed of in sealed containers in a secured sanitary landfill. Solutions can be treated with an excess of lime and the resulting precipitate (CaF) recovered or disposed of in an approved landfill. Follow local, state and federal regulations.</p> <p>REPORTABLE SPILL QUANTITY = 5000 lbs/2270 kg (40CFR117)</p>	
SECTION 8. SPECIAL PROTECTION INFORMATION	
<p>Provide local exhaust ventilation to control airborne particulate to meet the TLV requirement. Use a NIOSH approved particulate respirator wherever the TLV may be exceeded. Air supplied or a self-contained breathing apparatus is needed for concentrations above 12.5 mg/m³ (as F), with a full facepiece above 25 mg/m³ (as F). Wear protective clothing and gloves to prevent skin contact as required by the working conditions. Use chemical safety goggles to prevent eye contact. Work clothes should be changed after the work shift when the possibility of contamination exists. Launder contaminated clothing before reuse. Contact lenses pose a special hazard; soft lenses may absorb and all lenses concentrate irritants. Eyewash stations and washing facilities should be readily accessible.</p>	
SECTION 9. SPECIAL PRECAUTIONS AND COMMENTS	
<p>Store in closed containers in a dry, well ventilated area away from acids. Protect containers from physical damage. Avoid contact with eyes, skin and clothing. Avoid inhalation of NaF dust. DO NOT INGEST!!! Use good housekeeping procedures to prevent the accumulation of dust. Use procedures that minimize dust generation. Follow good personal hygiene practices. Wash thoroughly with soap and water after handling, before smoking, eating and using toilet facilities and at the end of each work shift. Eating and smoking should be prohibited in areas where this material is handled.</p> <p>DOT CLASSIFICATION: ORM-B (Sodium fluoride, solid - 49CFR 172.101)</p> <p>DOT ID NO.: UN 1690</p> <p>DATA SOURCE(S) CODE (See Glossary) 2, 4, 5, 6, 9, 12, 14, 20, 27, 43. V.</p>	
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	MEDICAL REVIEW: <i>Dec 85</i>