

MATERIAL SAFETY DATA SHEET

SRM Supplier: National Institute of Standards and Technology
Standard Reference Materials Program
100 Bureau Drive, Stop 2321
Gaithersburg, Maryland 20899-2321

SRM Number: 3183
MSDS Number: 3183
SRM Name: Fluoride Anion
Standard Solution
Date of Issue: 05 November 2003

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SECTION I. MATERIAL IDENTIFICATION

Material Name: Fluoride Anion Standard Solution

Description: This material consists of 50 ml of a single component solution at a nominal concentration of 1000 mg/kg fluoride dissolved in filtered (0.22 µm) 18 MΩ water. High purity sodium fluoride was used in the preparation.

Other Designations: Sodium Fluoride [sodium monofluoride; sodium fluoride (NaF); natural villiaumite; FNa]

Name	Chemical Formula	CAS Registry Number
Sodium Fluoride	NaF	7681-49-4

DOT Classification: Solution is not regulated by DOT.

Manufacturer/Supplier: Available from a number of suppliers.

SECTION II. HAZARDOUS INGREDIENTS

Hazardous Component	Nominal Concentration	Exposure Limits and Toxicity Data
Sodium Fluoride	~1000 mg/kg	OSHA TWA: 2.5 mg (F)/m ³
		ACGIH TWA: 2.5 mg (F)/m ³
		Human, Woman, Oral TD _{Lo} : 7 mg/kg
		Human, Man, Oral TD _{Lo} : 1662 mg/kg
		Human, Woman, Oral LD _{Lo} : 90 mg/kg
		Human, Woman, Oral LD _{Lo} : 360 mg/kg
		Human, Oral TD _{Lo} : 214 µg/kg
		Human, Oral LD _{Lo} : 71 mg/kg
		Human, Oral LD _{Lo} : 75 mg/kg
		Human, Intradermal TD _{Lo} : 14 µg/kg

Listed as a Carcinogen/Potential Carcinogen:

	Yes	No
In the National Toxicology Program (NTP) Report on Carcinogens	_____	<u> X </u>
In the International Agency for Research on Cancer (IARC) Monographs	_____	<u> X </u>
By the Occupational Safety and Health Administration (OSHA)	_____	<u> X </u>

EMERGENCY AND FIRST AID PROCEDURES:

Skin Contact: Wash skin with soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Thoroughly clean and dry contaminated clothing and shoes before reuse. Obtain medical attention if needed.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Obtain immediate medical assistance.

Ingestion: Give milk. Obtain medical attention immediately.

SECTION VII. PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken in Case Material Is Released or Spilled: Stop spilled material from being released to the environment. Absorb spill liquid with sand or other non-combustible material. Collect spilled material in appropriate container for disposal.

Waste Disposal: Follow all federal, state, and local regulations.

Handling and Storage: Store in accordance to the Certificate of Analysis for SRM 3183. Keep separated from incompatible substances. Handle in accordance with all current regulations and standards.

NOTE: Contact lenses pose a special problem; soft lenses may absorb irritants and all lenses concentrate them. **DO NOT** wear contact lenses in the laboratory.

SECTION VIII. SOURCE DATA/OTHER COMMENTS

Sources: MDL Information Systems, Inc., MSDS *Sodium Fluoride*, 19 March 2003.

Disclaimer: Physical and chemical data contained in this MSDS are provided only for use in assessing the hazardous nature of the material. The MSDS was carefully prepared, using current references; however, NIST does not certify the data on the MSDS. The certified value for this material is given in the NIST Certificate of Analysis.