

Safety Data Sheet

1. IDENTIFICATION

Product Identifier:	Sodium Fluoride
Product Code(s):	S1080, S1151
Synonyms:	Fluoride, Sodium Salt
Recommended Use:	For manufacturing, industrial, and laboratory use only. Use as a catalyst or as a laboratory solute.
Uses Advised Against:	Not for food, drug, or household use.
Supplier:	Rocky Mountain Reagents, Inc. 4621 Technology Drive, Golden, CO 80403 Phone: (303) 762-0800 Fax: (303) 762-1240
Emergency Phone Number:	(800) 255-3924 (CHEM-TEL)

2. HAZARDS IDENTIFICATION

Hazard Classifications:	Acute Toxicity – Oral: Category 3
	Skin Corrosion/Irritation: Category 2
	Eye Damage/Irritation: Category 2A

Signal Word: DANGER

Hazard Statements: Toxic if swallowed.
Causes skin irritation.
Causes serious eye irritation.

Pictograms:



Precautionary Statements:

Prevention: Wash thoroughly after handling.
Do not eat, drink, or smoke when using this product.
Wear protective gloves, eye protection, and face protection.

Response: If swallowed: Immediately call a poison center or doctor. Rinse mouth.
If on skin: Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage: Store locked up.

Disposal: Dispose of contents and container in accordance with local, regional, national, and international regulations.

Hazards Not Otherwise Classified: Harmful to aquatic life. Avoid release to the environment.

Toxicity Statement: Not applicable.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Component	Common Name / Synonyms	CAS#	Chemical Formula	% by Weight
Sodium Fluoride	Fluoride, Sodium Salt	7681-49-4	NaF	≥ 97.0

Trade Secret Statement: Not applicable.

4. FIRST AID MEASURES

First Aid Procedures:

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head low so that vomit does not enter lungs. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact: Wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if symptoms occur.

Eye Contact: Check for and remove contact lenses, if present and easy to do. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Immediate medical attention is required. Call a physician if symptoms occur.

General Advice: Poison information centers in each state can provide additional assistance for scheduled poisons. Ensure that those providing first aid and medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Symptoms and Effects: Irritation, burns, coughing, difficulty breathing, thirst, nausea, vomiting, diarrhea, abdominal pain. May be fatal if swallowed. Harmful if inhaled. May cause irritation if exposed to the skin or eyes. Prolonged or repeated exposure may cause liver damage, lung damage, and bone damage.

**Immediate Medical Care/
Special Treatment:** Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable Extinguishing Media: Water spray, dry powder, alcohol resistant foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream, as it may scatter and spread fire.

Hazardous Combustion Products: Sodium oxides, hydrogen fluoride.

Specific Hazards: Excessive thermal conditions may cause decomposition and yield hazardous combustion products listed above.

Special Protective Equipment/Precautions for Firefighters: As in any fire, wear MSHA/NIOSH-approved (or equivalent), self-contained, positive-pressure or pressure-demand breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment: Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Keep upwind. Wear appropriate personal protective equipment (see Section 8). Avoid contact with eyes, skin, and clothing.

Emergency Procedures: In case of chemical emergency, or if unsure how to address an accidental release, consult a professional (see Section 1).

Methods for Containment: Prevent entry into waterways, sewer, basements, or confined areas. Avoid generation of product as dust. Product should not be released to the environment. Contain and recover crystal when possible.

Methods for Cleanup: Sweep or collect spill with an inert material (e.g. vermiculite, dry sand, earth, cloth, or fleece) and place in a non-combustible container for reclamation or disposal. Do not flush to sewer. Clean contaminated surface thoroughly. Residues from spills can be diluted with water. Never return spills in original containers for reuse. Clean up in accordance with all applicable regulations.

7. HANDLING AND STORAGE

Handling: Wear personal protective equipment (see Section 8). Use only in well-ventilated areas. Provide sufficient air exchange and/or exhaust in work rooms. Avoid contact with skin, eyes, and clothing. Avoid generation of dust. Do not breathe product dust. Limit exposure to moisture. Do not ingest. When using, do not eat, drink, or smoke. Keep away from incompatible materials (see Section 10). Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Containers of this material may be hazardous when empty, as they retain product residues. Observe all warnings and precautions listed for this product.

Storage: Store in a cool, dry, ventilated area. Store in a segregated and approved area away from heat and incompatible materials (see Section 10). Store in original container. Keep containers tightly closed and upright. Keep away from food, drink, and animal foodstuffs. Keep out of the reach of children. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of this product.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:

ACGIH (TLV):	2.5 mg/m ³
OSHA (PEL):	2.5 mg/m ³
NIOSH (REL):	2.5 mg/m ³

Engineering Controls: Ensure adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls

to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Measures:

Eye/Face Protection: Wear safety glasses with side shields or goggles and a face shield. Maintain approved eye wash station and accessible rinse facilities in work area.

Skin Protection: Wear appropriate chemical resistant clothing (with long sleeves) and appropriate chemical resistant gloves.

Respiratory Protection: An air-purifying, NIOSH-approved respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure, air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are unknown, or if any other circumstances exist where air-purifying respirators may not provide adequate protection.

Specific Requirements for Personal Protective Equipment: Ensure that glove material is compatible with this product. This information is available from glove manufacturers.

9. PHYSICAL AND CHEMICAL PROPERTIES
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Unless otherwise indicated, all properties are given at 25 °C and standard pressure.

Appearance: White, opaque, crystalline solid.

Odor: Odorless.

Odor Threshold: No information found.

Formula Weight: 41.99

pH: No information found.

Melting/Freezing Point: 993 °C

Boiling Point/Range: 1704 °C

Decomposition Temperature: No information found.

Flash Point: Not applicable.

Auto-ignition Temperature: Not applicable.

Flammability: Not flammable.

Flammability/Explosive Limits: Not applicable.

Solubility: 40 g/L aqueous

Vapor Pressure: 1.4 mmHg

Vapor Density: No information found.

Specific Gravity: 2.78 (Water = 1)

Evaporation Rate: No information found.

Viscosity: No information found.

Partition Coefficient (n-octanol/water): No information found.

10. STABILITY AND REACTIVITY

Reactivity Data:	No information found.
Chemical Stability:	Stable under normal conditions. Hygroscopic.
Conditions to Avoid:	Excessive heat, moisture, incompatible materials.
Incompatible Materials:	Strong acids.
Hazardous Decomposition Products:	Sodium oxides, hydrogen fluoride.
Possibility of Hazardous Reactions:	May react vigorously or violently with the incompatible materials listed above. Excessive thermal conditions may yield hazardous decomposition products listed above.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure:	Inhalation, ingestion, skin contact, eye contact.
Acute Effects:	May be fatal if swallowed. Harmful if inhaled. May cause irritation if exposed to the skin or eyes.
Chronic Effects:	Prolonged or repeated exposure may cause liver damage, lung damage, and bone damage.
Toxicological Data:	LD ₅₀ Oral, Rat: 52 mg/kg Causes skin and eye irritation based on animal data.
Symptoms of Exposure:	Irritation, burns, coughing, difficulty breathing, thirst, nausea, vomiting, diarrhea, abdominal pain.
Carcinogenic Effects:	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
IARC:	Group 3 – Not classifiable as to its carcinogenicity to humans
ACGIH:	A4 – Not classifiable as a human carcinogen

12. ECOLOGICAL INFORMATION

Ecotoxicological Data:	EC ₅₀ , Water Flea (<i>Daphnia magna</i>): 98 mg/L 48 h LC ₅₀ , Rainbow Trout (<i>Oncorhynchus mykiss</i>): 200 mg/L 96 h
Persistence and Degradability:	Bioconcentration Factor: 2.3 (<i>Salmo trutta</i> , 5 mg/L, 10 d)
Environmental Effects:	Harmful to aquatic organisms. Avoid release to the environment.

13. DISPOSAL INFORMATION

Disposal Instructions:	Dispose of this material and its container to an approved waste collection point. Minimize exposure to product waste (see Section 8). Do not dispose unused waste down drains or into sewers. All wastes must be handled in accordance with local, state, and federal regulations.
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Contaminated Packaging: Because containers retain product residue, follow label warnings even after container is emptied. Offer rinsed packaging material to local recycling facilities.

Waste Codes: No information found.

14. TRANSPORT INFORMATION

DOT:

UN Number: UN1690

Proper Shipping Name: Sodium fluoride, solid

Hazard Class: 6.1

Packing Group: III

ERG Number: 154

Environmental Hazard Regulations: No information found.

Other Transport Precautions: DOT Reportable Quantity: 1000 lb

15. REGULATORY INFORMATION

U.S. Federal Regulations:

OSHA: This product is considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Inventory: All components of this product are on the U.S. TSCA Inventory.

U.S. EPCRA (SARA Title III):

Section 302: No information found.

Sections 311/312:

Hazard Category	List (Yes/No)
Section 311 – Hazardous Chemical	Yes
Immediate Hazard	Yes
Delayed Hazard	Yes
Fire Hazard	No
Pressure Hazard	No
Reactivity Hazard	No

Section 313: No information found.

CERCLA Reportable Quantities: Sodium Fluoride: 1000 lb

International Inventories:

Country or Region	Inventory Name	On Inventory (Yes/No)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

*A "Yes" indicates that the listed component(s) of this product comply with the inventory requirements administered by the governing country(s).

16. OTHER INFORMATION**Disclaimer:**

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Update of Section 9 over 05/26/2015 version.