

AWSM Industries, LLC

MATERIAL SAFETY DATA SHEET

Sodium Fluoride

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Sodium Fluoride

OTHER/GENERIC NAMES: Floridine; sodium monofluoride; disodium difluoride; natrium fluoride; florocid

PRODUCT CODES: ACH-38191-02, ACH-38191-03

PRODUCT USE: Industrial

DISTRIBUTOR: AWSM Industries, LLC
12 Route 17 North, Suite 309
Paramus, NJ 07652

TELEPHONE: (201) 845-4666
(Monday-Friday, 8:30 AM – 5:00 PM)

CHEMTREC PHONE: 1800-424-9300
(24 Hours/Day, 7 Days/Week)

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT NAME:</u>	<u>CAS NO.</u>	<u>% WT</u>
Sodium Fluoride	7681-49-4	100%

Trace impurities and additional material names not listed above may also appear in Section 15 towards the end of the MSDS. These materials may be listed for local "Right-to-Know" compliance and for other reasons.

OSHA Hazard Communication Standard: *This product is considered hazardous under the OSHA Hazard Communication Standard*

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Danger! May be fatal if swallowed or inhaled. Affects respiratory system, heart, skeleton, circulatory system, central nervous system and kidneys. Causes irritation to skin, eyes and respiratory tract. Irritation effects may be delayed. Contact with acids liberates toxic hydrogen fluoride gas.

POTENTIAL HEALTH HAZARDS

EYES: Eye irritant! May cause irritation and serious eye damage. Effects may not immediately appear.

SKIN: Causes irritation, with redness and pain. Solutions are corrosive. Effects may not appear immediately.

INGESTION: Toxic! May cause salivation, nausea, vomiting, diarrhea, and abdominal pain. Symptoms of weakness, tremors shallow respiration, cardopedal spasm, convulsions, and coma may follow. May cause brain and kidney damage. Affects heart and circulatory system. Death may occur from respiratory paralysis. Estimated lethal dose = 5-10 grams.

INHALATION: Causes severe irritation to the respiratory tract, symptoms may include coughing, sore throat, and labored breathing. May be absorbed through inhalation of dust; symptoms may parallel those from ingestion exposure. Irritation effects may not appear immediately.

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DELAYED EFFECTS: Chronic exposure may cause mottling of teeth and bone damage (osteosclerosis) and fluorosis. Symptoms of fluorosis include brittle bones, weight loss, anemia, calcified ligaments, general ill health and joint stiffness.

Ingredients found on one of the three OSHA designated carcinogen lists are listed below.

<u>INGREDIENT NAME</u>	<u>NTP STATUS</u>	<u>IARC STATUS</u>	<u>OSHA LIST</u>
No ingredients listed in this section			

SECTION 4: FIRST AID MEASURES

SKIN: Wipe off any excess material from skin and then immediately flush skin with large amounts of soapy water. Remove contaminated clothing and shoes. Wash clothing before re-use. Apply bandages soaked in magnesium sulfate. CALL A PHYSICIAN IMMEDIATELY.

EYES: Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Call a physician immediately.

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. CALL A PHYSICIAN IMMEDIATELY.

INGESTION: Administer milk, chewable calcium carbonate tablets or milk of magnesia. Never give anything by mouth to an unconscious person. CALL A PHYSICIAN IMMEDIATELY.

ADVICE TO PHYSICIAN: For larger exposures, systemic effects (hypocalcemia and hypomagnesia) may occur.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT:	Not applicable
FLASH POINT METHOD:	Not applicable
AUTOIGNITION TEMPERATURE:	Not applicable
UPPER FLAME LIMIT (volume % in air)	Not applicable
LOWER FLAME LIMIT (volume % in air)	Not applicable
FLAME PROPAGATION RATE (solids)	Not applicable
OSHA FLAMMABILITY CLASS:	Not flammable

EXTINGUISHING MEDIA:

Use any means suitable for extinguishing surrounding fire.

SPECIAL FIRE FIGHTING PRECAUTIONS/INSTRUCTIONS:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. When burned, hazardous fumes including hydrogen fluoride can be released. These fumes can be fatal. Take extreme care.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR OTHER RELEASE: Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in section 8. Spills: Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust. US Regulations (CERCLA) require reporting spills and release to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802

Spills and releases may have to be reported to Federal and/or local authorities. See section 15 regarding reporting requirements.

SECTION 7: HANDLING AND STORAGE

NORMAL HANDLING: (Always wear recommended personal protective equipment.)

Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Do not inhale dust. Wash hands before breaks and after work.

STORAGE RECOMMENDATIONS:

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Separate from acids and oxidizing materials. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Ensure adequate mechanical ventilation. Use local ventilation at product handling and transfer points.

PERSONAL PROTECTIVE EQUIPMENT

SKIN PROTECTION: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

EYE PROTECTION: Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

RESPIRATORY PROTECTION If the exposure limit is exceeded and engineering controls are not feasible, a half facepiece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece particulate respirator (NIOSH type N100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For

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emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

ADDITIONAL RECOMMENDATIONS

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

EXPOSURE GUIDELINES:

<u>INGREDIENT NAME</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>NIOSH</u>
Sodium Fluoride	2.5 mg/(F)/m3 (TWA)	2.5 mg(F)/m3 (TWA)	-----

¹ = Limit established by Industry Standard.

² = Workplace Environmental Exposure Level (AIHA).

³ = Biological Exposure Index (ACGIH).

OTHER EXPOSURE LIMITS FOR POTENTIAL DECOMPOSITION PRODUCTS:

None

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	White Crystals
PHYSICAL STATE:	Solid
MOLECULAR WEIGHT:	41.99
CHEMICAL FORMULA:	NaF
ODOR:	Odorless
SPECIFIC GRAVITY (H ₂ O = 1):	2.78
SOLUBILITY IN WATER (weight %):	4 g/100 mL water @ 15°C (59°F)
pH:	No information found.
BOILING POINT:	1700 C (3092F)
MELTING POINT:	993 °C (1819 °F)
VAPOR PRESSURE:	1 @ 1077 °C (1971 °F)
VAPOR DENSITY(air= 1.0):	Not applicable.
EVAPORATION RATE:	Not applicable. COMPARED TO: Not Applicable
% VOLATILES by Volume @ 21°C (70°F):	0
FLASH POINT:	Not applicable.

(Flash point method and additional flammability data are found in Section 5.)

SECTION 10: STABILITY AND REACTIVITY

NORMALLY STABLE/(CONDITIONS TO AVOID):

Stable under normal conditions.

INCOMPATIBILITIES:

Reacts with acids to form hydrogen fluoride.

HAZARDOUS DECOMPOSITION PRODUCTS:

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Burning may product hydrogen fluoride vapors.

HAZARDOUS POLYMERIZATION:

Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

IMMEDIATE (ACUTE) EFFECTS:

Oral (rat) LD₅₀ – 52 mg/kg; Eye Rabbit (Standard Draize) 20 mg/ 24-hr, moderate; Investigated as tumorigen, mutagen, reproductive effector.

DELAYED (SUBCHRONIC AND CHRONIC EFFECTS)

Chronic exposure may cause mottling of teeth and bone damage (osteosclerosis) and fluorosis. Symptoms of fluorosis include brittle bones, weight loss, anemia, calcified ligaments, general ill health and joint stiffness.

OTHER DATA:

None.

SECTION 12: ECOLOGICAL INFORMATION

Environmental Fate:

No information found.

Environmental Toxicity:

This material is not expected to be toxic to aquatic life. The LC50/96-hour values for fish are over 100 mg/L. LD50, oral (goat, sheep) 100 mg/kg; LD50, oral (wild bird) 110 mg/kg.

SECTION 13: DISPOSAL CONSIDERATIONS

RCRA

Is the unused product a RCRA hazardous waste if discarded? Not listed.

If yes, the RCRA ID number is: Not applicable.

OTHER DISPOSAL CONSIDERATIONS:

Dispose of in accordance with Local, State and Federal regulations.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

SECTION 14: TRANSPORT INFORMATION

US DOT HAZARD CLASS: 6.1 PG III
US DOT ID NUMBER: UN 1690
PROPER SHIPPING NAME: SODIUM FLUORIDE

For additional information on shipping regulations affecting this material, contact the information number found in Section 1.

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SECTION 15: REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA)

TSCA INVENTORY STATUS: Material is on the TSCA Inventory.

OTHER TSCA ISSUES: None

SARA TITLE III/ CERCLA

"Reportable/ Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients.

<u>INGREDIENT NAME</u>	<u>SARA/CERCLA RQ (LB)</u>	<u>SARA EHS TPQ(LB)</u>
Sodium Fluoride	1000 lbs.	

Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center (800) 424-8802 and to your Local Emergency Planning Committee.

SECTION 311/312 HAZARD CLASS:

SARA 313 TOXIC CHEMICALS:

The following ingredients are SARA 313 "Toxic Chemicals". CAS numbers and weight percents are found in Section 2.

<u>INGREDIENT NAME</u>	<u>COMMENT</u>
No ingredients listed in this section.	

STATE COMPONENT LISTING:

State	Comment
CA	Hazardous Substance List
MN	Hazardous Substance List
NJ	Hazardous Substance List
PA	Hazardous Substance List

<u>INGREDIENT NAME</u>	<u>WEIGHT%</u>	<u>COMMENT</u>
No ingredients listed in this section.		

ADDITIONAL REGULATORY INFORMATION:

None listed.

WHMIS CLASSIFICATION (CANADA):

FOREIGN INVENTORY STATUS:

Sodium Fluoride is on the following inventories.
EINECS inventory. EINECS No. 240985-6
Canadian DSL.
Australian.
Korean.
Japanese (ENCS).
Philippine (PICCS).

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SECTION 16: OTHER INFORMATION

CURRENT ISSUE DATE: OCTOBER 12, 2005
PREVIOUS ISSUE DATE: JANUARY 1, 2005

CHANGES TO MSDS FROM PREVIOUS ISSUE DATE ARE DUE TO THE FOLLOWING:
New Format

OTHER INFORMATION: NFPA: 3-0-0

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Date Created	Created By	Replaces	Area	Product/ Process	Special
9/21/05	JD	01/01/05	MSDS	Sodium Fluoride	SRE