

MSDS Document

Product Sodium Fluoride

1. Chemical Product and Company Identification

Product Sodium Fluoride

Synonyms: Floridine, Chemifluor, Ossin, Sodium Monofluoride, Lemofluor, Florocid, Villiaumite, Luride-SF, Karidium, Zymafluor, Ossalin

MSDS ID 6350

Manufacturer

Distributed by Phibrochem
65 Challenger Road
Ridgefield Park, NJ 07660

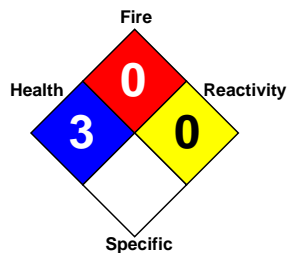
Phone Number

(201) 329-7300

Emergency Phone

800-4249300 CNN17221

Revision Date 5/13/2011



2. Composition and Information on Ingredients

Ingredient	CAS Number	Weight %	ACGIH TLV	PEL	STEL
SODIUM FLUORIDE	7681-49-4	98% - 100%	2.5 mg/m ³ (F)	2.5 mg/m ³ (F)	NA
SODIUM SILICOFLUORIDE	16893-85-9	2% - Max	2.5 mg/m ³ (F)	2.5 mg/m ³ (F)	NA

3. Hazard Identification

Eye

Corrosive to the eyes and may cause severe damage including blindness.

Ingestion

Toxic, harmful if swallowed. May damage gastrointestinal system. May be fatal if swallowed or inhaled. Estimated lethal dose of sodium fluoride is 5-10 grams.

Inhalation

Can cause severe respiratory irritation. Harmful if inhaled or absorbed through skin.

Skin

Corrosive, causes skin burning. Irritation may be delayed for several hours. Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

Target Organs:

Eyes. Bones. Brain. Gastrointestinal system. Kidneys. Lungs. Nervous system. Respiratory system. Skin. Teeth.

Inorganic fluorides can cause fluorosis, leading to brittle bones, stiffness and eventual crippling. Can cause discoloration of teeth, lung scarring, and may cause kidney damage.

4. First Aid Information**Eye**

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel.

Skin

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Thoroughly wash (or discard) clothing and shoes before reuse. Apply bandage soaked in milk of magnesia.

Inhalation

Rescuers should put on appropriate protective gear. Remove from area of exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep victim warm. Get immediate medical attention.

Ingestion

Never give anything by mouth to an unconscious person. Do not induce vomiting. Immediately give two tablespoons of magnesium sulfate and a glass of water. Repeat three times. Follow with two tablespoons of milk of magnesia and a glass of water. Repeat these dosages in ten minutes. Get medical attention immediately.

5. Fire Fighting Measures**Flammable Properties**

Material will not burn. Combustion generates toxic fumes.

Extinguishing Media

Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

Fire fighting instructions

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved) and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire.

6. Accidental Release Measures

Clean-up

Ventilate area of leak or spill. Avoid dusting. Vacuum or sweep up material and place in a disposal container. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Do not flush to sewer.

7. Handling and Storage

GENERAL HYGIENE MEASURES:

Wash thoroughly after handling and before eating. Do not eat, drink, or smoke during work..

Respiratory:

Use with adequate ventilation.

Handling

Avoid breathing (dust, vapor, mist, gas). Avoid contact with eyes, skin, and clothing. Empty containers may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions for the product.

Storage

Store in a cool dry place. Store away from moisture. Store away from incompatible materials. Keep container closed when not in use. Keep away from food and drinking water.

8. Exposure Controls and Personal Protection

Engineering controls

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

Respirators

A NIOSH-approved air purifying respirator with the appropriate cartridge or canister for the hazards is required where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

Other clothing

Wear safety glasses with side shields (or goggles) and a face shield. Use gloves, and other body coverings, recommended for this material by manufacturers or suppliers based on test data showing adequate permeation and penetration resistance.

9. Physical and Chemical Properties

Physical State	Crystals or Powder
Specific Gravity	2.56
Color/Appearance	White

Odor	Odorkess
pH	7.4
Boiling/Cond. Point	1700 C @ 760 mm hg
Melting/Freezing Point	993 C(1819 F)
Solubility	4 g/100ml H2O @ 18C
Vapor Pressure	1 @ 1077 C

10. Stability and Reactivity

Low hazard for usual industrial or commercial handling.

Thermal Stability

Stable under normal conditions of use and storage.

Incompatibility

Oxidizing agents. Metals. Acids. Alkalies. Reacts with acids to form hydrogen fluoride. Corrosive to metals especially to aluminum. Solutions attack glass.

Conditions to Avoid

Heat, flames, ignition sources and incompatibles. Keep away from glass and aluminum
Protect from moisture.

Hazardous Polymerization

Will not occur.

Hazardous Decomposition Products

Thermal decomposition may release toxic fumes of sodium oxides. Thermal decomposition may release toxic fumes of fluorides.

11. Toxicological Information

Carcinogen

NTP: No

IARC: Group 3 (Not classifiable as to its carcinogenicity to humans.)-Sodium fluoride

OSHA: No

There is no experimental toxicity data for this product. Refer to the data listed below for relative toxicity assessment.

Toxicity Data (100% Sodium Fluoride)

Oral Toxicity: LD50: 52 Mg/Kg (Rat);

LD50: 57 Mg/Kg (Mouse)

LD50: 200 Mg/Kg (Rabbit)

LDLo: 71 Mg/Kg (Human)

Eye Toxicity: MOD 20 Mg/24H (Rabbit)

Intravenous Toxicity: LD50: 26 Mg/Kg (Rat)

LD50: 50,830 ug/Kg (Mouse)

LDLo: 80 Mg/Kg (Dog)

Skin Toxicity: LDLo: 300 Mg/kg (Mouse)

Intraperitoneal Toxicity: LD50: 22 Mg/Kg (Rat)

Subcutaneous Toxicity: LD50: 70 Mg/Kg (Mouse)

LD50: 175 Mg/Kg (Rat)

Unscheduled DNA synthesis: 100 Mg/L Fibroblast (Human)
Experimental teratogenic and reproductive effects. Human mutation data reported.
Questionable carcinogen with experimental tumorigenic data.
Sodium Fluoride IDLH (NIOSH):250 mg/m3

Toxicity Data (100% Sodium Silicofluoride)
Oral Toxicity: LD50: 125 Mg/Kg (Rat);
LDLo: 125 Mg/Kg (Rabbit)
Eye Toxicity: SEV 100 Mg/4S rns (Rabbit)
Skin Toxicity: MLD 500 Mg/Kg (Rabbit)
Subcutaneous Toxicity: LDLo: 70 Mg/Kg (Rat)

12. Ecological Information

Keep out of waterways.

For Sodium Fluoride:
LC50: >530 mg/L/96H (Lepomis macrochirus-bluegill).
LC50: 200 mg/L/96H (Oncorhynchus mykiss-rainbow trout).
Mortality NOEC: 500 mg/L/96H (Cyprinodon variegatus-sheepshead minnow).
EC50: 338 mg/L/48H (Daphnia magna-water flea).
EC50: 98 mg/L/48H (Daphnia magna-water flea).
EC50: 272 mg/L/96H (Selenastrum capricornutum-green algae).

Sodium Silicofluoride:
LC50: 49 mg/L/96H (Lepomis macrochirus)

13. Disposal Considerations

Disposal Method

Waste resulting from use or processing of this product should be evaluated and disposed of in accordance with applicable federal, state, local environmental and regulatory requirements.

14. Transportation Information

DOT Shipping Name: Sodium Fluoride, Solid
DOT Hazard Class: 6.1
Hazard Identification: Sodium Fluoride
Identification Number: UN 1690
Packing Group: III
Label: Toxic

RQ is required for shipping 1,000 lb or more of Sodium Fluoride in a single container.

NOTE: During an incident involving this material, use of DOT Emergency Response Guide No. 154 is also recommended.

15. Regulatory Information

Toxic Substances Control Act (TSCA)

Chemical ingredients are on the TSCA inventory.

Clean Water Act Section 311 Hazardous Substances

Sodium fluoride, RQ=1000 lb.

Safe Drinking Water Act MCLGs and MRDLGs

SDWA Maximum Contaminant Level Goal: 4.0 mg/L-Fluoride.

Superfund Reportable Quantity (RQ)

1000 lb/454 kg -Sodium Fluoride

Hazardous Waste No.

Not Regulated.

Sara Title III (Section 313)

Not listed.

State Lists

This material contains ingredients that are listed for reporting or disclosure in the states of California, Connecticut, Illinois, Indiana, Kentucky, Louisiana, Massachusetts, Minnesota, Missouri, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Washington, or Wisconsin. Please check with the appropriate state agencies.

For States Not Listed

Please check with the appropriate agencies.

California Proposition 65 Warning

Not listed.

Canadian Lists

DSL/NDSL

The ingredients are on the Domestic Substances List.

WHMIS

Sodium fluoride is item number 1440 from the ingredient disclosure list and is subject to reporting at 1% threshold. Fluoride and inorganic compounds is item 773 and is subject to reporting at 1% concentration threshold.

European/International Regulations: European Labeling in Accordance with 67/548/EEC

Hazard Symbols: T

Risk Phrases:

R 25 Toxic if swallowed.

R 32 Contact with acids liberates very toxic gas.

R 36/38 Irritating to eyes and skin.

Safety Phrases:

S 22 Do not breathe dust.

S 36 Wear suitable protective clothing.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the

label where
possible).

16. Other Information

All information presented herein is given in good faith and is based on sources and tests considered to be reliable, but cannot be guaranteed. It is the user's full responsibility to accept risk for the safety, toxicity, handling, storage, and use of the product, as well as to determine the suitability of the product for a specific purpose. We make no warranty as to the results to be obtained in using the product; therefore all risks must be assumed by the user.