



# TULSTAR PRODUCTS, INC.

5510 SOUTH LEWIS AVENUE • TULSA, OK 74105 • (918) 749-9060 • FAX (918) 747-1444  
TULSTAR@TULSTAR.COM • WWW.TULSTAR.COM

## MATERIAL SAFETY DATA SHEET

### SODIUM FLUORIDE POWDER

#### SUPPLIER/DISTRIBUTOR

: TULSTAR PRODUCTS, INC  
5510 S. Lewis Ave.  
TULSA, OK 74105  
  
VOICE : 918/749-9060  
FAX : 918/747-1444  
email : tulstar@tulstar.com

#### 1. PRODUCT IDENTIFICATION

Identifier : SODIUM FLUORIDE POWDER (US)  
PIN/UN NO. : 1690  
MSDS NO. : U094  
Molecular Weight : 41.99  
Chemical Name : Sodium fluoride.  
Chemical Family : Inorganic sodium compounds  
Chemical Formula : NaF - ACS # 7681-49-4  
Pest Control Product : N/AP  
Stock Number : 100 lbs 25 kg bag  
Product Group : N/AV  
Product Use : Fluoridation of water supplies  
Wood preservative  
Insecticide, fungicide and rodenticide.  
  
Synonyms : Natrium fluoride

WHMIS Classification: D1D2; Means of classification: Classified in house; NFPA 704: Fire: 0, Toxicity: 2, Reactivity: 0, Special: N/AP

#### 2. HAZARDOUS INGREDIENTS

Hazardous Ingredient : Sodium Fluoride  
% Ratio : 98 W/W  
CAS No., PIN No. : 7681-49-4 1690  
Test/Related Information : LD50 ORAL Tested on rodent rat  
: LDLo Tested on human  
Values : 52mg/kg  
75mg/kg

#### 3. PHYSICAL DATA

Appearance : Free-flowing white powder.  
Odour : Odorless  
Physical State : Solid  
Freezing Point (c) : 992  
Boiling Point (c) : 1704  
Odour Threshold : N/AP  
Vapour Pressure : 1mmHg@1077



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Vapour Density : N/AP  
Percent Volatile : N/AP  
Evaporation Rate : N/AP  
pH : N/AV  
Specific gravity : 2.78  
Water/Oil : N/AV  
Percent Soluble (@20c) : 40g/l @ 15c  
Other : Solubility in water @ 20C : 3.5 g/l  
Density : Tamped: 1340-1540 kg/m<sup>3</sup>  
: Non-tamped: 1020-1320 kg/m<sup>3</sup>

## 4. FIRE AND EXPLOSION DATA

Flammability : N/AP Not flammable.  
Extinguishing Media : For fires involving this product, water, fog, carbon dioxide (CO<sub>2</sub>), foam or dry chemical may be used. Use extinguishing media appropriate for surrounding fire.  
Special Fire Fighting Procedures: Wear NIOSH approved self-contained breathing apparatus when either in confined areas or exposed to combustion products. Use water to cool fire exposed containers.  
Unusual Fire and Explosion Hazards: Excessive temperature may cause product to decompose.  
Flashpoint and Method : N/AP  
Upper Flammable Limit (%Vol) : N/AP  
Lower Flammable Limit (%Vol) : N/AP  
Auto-Ignition Temp (c) : N/AV  
Hazardous Combustion Products : Product may decompose to release toxic products at high temperatures.  
Explosion - Sensitivities to Impact: N/AV  
Explosion - Sensivity to Static Discharge: N/AV

## 5. REACTIVITY DATA

Chemical Stability : Yes. Stable under normal conditions of use. Avoid excessive heat (>1800 c).  
Incompatibility with Other Substances: Yes. Avoid contact with strong acids and glass.  
Other Reactivity Concerns : N/AV.  
Hazardous Polymerization : No. Will not occur.  
Hazardous Decomposition Products: May release toxic fumes of hydrogen fluoride gas and sodium oxide (Na<sub>2</sub>O).

## 6. TOXICOLOGICAL EFFECTS

Routes of Entry : Skin Contact: Yes; Skin Absorption: No;  
Eye Contact: Yes; Inhalation: Yes;



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Ingestion: Yes.

Acute Exposure : Ingestion: Product is harmful and may be fatal. May cause headache, nausea, vomiting, gastrointestinal irritation, convulsions and burns to mouth, throat and stomach. May also result in fluoride poisoning.

: Inhalation: May cause nausea vomiting breathing and severe irritation of respiratory system. High concentrations may lead to chronic poisoning. Severe exposure may result in muscular weakness, tremors, convulsions, collapse, respiratory and cardiac failure and death.

Chronic Exposure : Chronic exposure may result in increased bone density, calcium deposits in ligaments and mottled tooth enamel.

Exposure Limits

TWA: N/AV      STEL: N/AV      C: N/AV      OSHA PEL: 2.5mg/m3  
ACGIH TLV: 2.5mg/m3      Others: N/AV

Carcinogen by NTP:N/AV; Carcinogen by IARC:N/AV; OSHA Controlled: N/AV

Irritancy : Eyes. May cause severe irritation or burns.  
Skin. May cause severe irritation or burns.

Sensitization : N/AV

Carcinogenicity : No. Not listed on NTP, IARC and OSHA. However, NTP is currently testing sodium fluoride for carcinogenicity.

Teratogenicity : N/AV

Reproductive Toxicity : N/AV

Mutagenicity : Positive mutagenic activity has been reported in experimental animals.

Synergistic Products : N/AV

Lethality Tests : LD50 ORAL 52 mg/kg Tested on Rats.  
LDL0 75 mg/kg Tested on humans.  
LC50 Inhalation N/AV Tested on rats.



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## 7. PREVENTIVE MEASURE

### Personal Protective Equipment

- Gloves : Wear nitrile or neoprene gloves to prevent skin contact.
- Respirator : Wear NIOSH/MSHA approved chemical filter respirator if exposed to dust particles during product application or if occupational exposure limits (TLV) are exceeded.
- Eye : Wear chemical goggles and faceshield.
- Footwear : Wear nitrile or neoprene boots.
- Clothing : Wear necessary protective clothing to prevent any possibility of skin contact with the product.
- Other : Use protective barrier skin cream if contact is likely.  
Discard leather articles such as shoes, watchbands or belts which have been contaminated with this product.  
Remove and wash contaminated clothing before reuse.  
Wash thoroughly after handling.
- Engineering Controls : Local exhaust system is recommended to keep air contaminant concentration below applicable exposure limits.
- Leak and Spill Procedures : Wear necessary protective clothing and equipment. A self-containing breathing apparatus in the pressure demand mode or supplied air respirator must be worn. For small spills a full facepiece air-purifying cartridge respirator equipped with particulate filters may be satisfactory. Sweep up while avoiding dust generation. Place in a properly labeled container for later disposal. Larger spills may require a vacuum. Keep out of sewers, storm drains, surface waters and soil.
- Waste Disposal : Incinerate in an approved facility. Disposal shall be in accordance to all applicable Federal and State waste regulations.
- Handling Procedures and Equipment : Do not handle unless the safety precautions have been read and understood. Avoid eye and skin contact. Avoid inhalation of dust or vapors. Do not puncture, drag or slide containers. Do not smoke in any chemical handling or storage area. Wash hands before eating.
- Storage Requirements : Store in a cool, dry and well-ventilated location. Avoid dust generation. Keep containers tightly closed. Store away



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Special Shipping Info : from incompatible materials.  
: 49 CFR REGULATION (UNDER HM-181 RULE)  
SODIUM FLUORIDE  
CLASS 6.1  
UN 1690  
PACKING GROUP III

## 8. **FIRST AID MEASURES**

Eye Contact

: Flush eyes immediately with flowing water for at least 15 minutes while keeping the upper and lower eyelids apart. Consult a physician immediately.

Skin Contact

: Remove contaminated clothing. Immediately wash affected skin area with soap and water and rinse thoroughly with flowing water for at least 15 minutes. Consult a physician immediately.

Ingestion

: Give 2 glasses of water and immediately induce vomiting. Consult a physician immediately.

Inhalation

: Move victim to fresh air. Assist breathing if necessary. Give oxygen or administer artificial respiration if required.

SPECIAL NOTE: NEVER GIVE FLUIDS OR INDUCE VOMITING TO AN UNCONSCIOUS VICTIM. PLACE VICTIM IN A STABLE SIDE POSITION AND KEEP WARM.

9. **Emergency Contact** : 1-800-424-9300 (Chemtrec)