

Infosafe No™ 1CHK0	Issue Date :October 2021	RE-ISSUED by CHEMSUPP
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Product Name **SODIUM FLUORIDE**

Classified as hazardous

1. Identification

GHS Product Identifier SODIUM FLUORIDE

Company Name CHEMSUPPLY AUSTRALIA PTY LTD (ABN 19 008 264 211)

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Recommended use of the chemical and restrictions on use Fluoridation of municipal water (1 ppm), de-gassing steel, metal smelting, amps, booster solvent, adsorbent of UF3 in nuclear industry, wood preservative, insecticide (not to be used on living plants), fungicide, rodenticide, chemical cleaning, electroplating, glass manufacture, vitreous enamels, preservative for adhesives, toothpastes, disinfectant (fermentation equipment), dental prophylaxis, cryolite manufacture, single crystals used as windows in UV and infrared radiation detecting systems, analytical reagent and laboratory reagent.

Other Names	<u>Name</u>	<u>Product Code</u>
	SODIUM FLUORIDE Powder AR	SA097
	SODIUM FLUORIDE Powder LR	SL097

Other Information

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture Eye Damage/Irritation: Category 2A
Acute Toxicity - Oral: Category 3
Skin Corrosion/Irritation: Category 2

Signal Word (s) DANGER

Hazard Statement (s) H301 Toxic if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Pictogram (s) Skull and crossbones



Precautionary statement – Prevention P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement – Response P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P330 Rinse mouth.

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P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P332+P313 If skin irritation occurs: Get medical advice/attention.
 P362 Take off contaminated clothing and wash before reuse.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.
 Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P405 Store locked up.

Precautionary statement – Storage

Precautionary statement – Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition/information on ingredients

Ingredients	Name	CAS	Proportion
	Sodium Fluoride	7681-49-4	100 %

4. First-aid measures

Inhalation	If inhaled, remove from contaminated area to fresh air immediately, avoid becoming a casualty. Make patient comfortable, keep warm and at rest until fully recovered. If breathing is difficult (or develops a bluish skin discolouration), supply oxygen by a qualified person. Apply artificial respiration with a respiratory medical device if not breathing. Do not use mouth to mouth resuscitation. Immediately medical attention is required.
Ingestion	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.
Skin	Immediately remove contaminated clothing and wash affected area with water for at least 15 minutes. Ensure contaminated clothing is washed before re-use. Seek medical advice /attention depending on the severity.
Eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. In all cases of eye contamination it is a sensible precaution to seek medical advice.
First Aid Facilities	Maintain eyewash fountain and safety shower in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor at once.

5. Fire-fighting measures

Hazards from Combustion Products	Corrosive and highly toxic gases, hydrogen fluoride gas, disodium oxide, sodium oxides, halogenated compounds.
Specific Methods	Material does not burn. Small fire: Use dry chemical, CO2 or water spray. If safe to do so, move undamaged containers from fire area. Large fire: Use dry chemical, CO2, foam or water spray - Do not use water jets.
Hazchem Code	2Z
Precautions in connection with Fire	Wear SCBA and chemical splash suit. Fully-encapsulating, gas-tight suits should be worn for maximum protection. Structural firefighter's uniform is NOT effective for these materials.

6. Accidental release measures

Personal Precautions	Evacuate the area of all non-essential personnel. Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods - Small Spillages	Sweep up (avoid generating dust) and using clean non-sparking tools transfer to a clean, suitable, clearly labelled container for disposal in accordance with local regulations.

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7. Handling and storage

Precautions for Safe Handling	Avoid contact with eyes, skin and clothing. Avoid ingestion and inhalation. Avoid prolonged or repeated exposure. Under no circumstances eat, drink or smoke while handling this material. Wash hands and face thoroughly after working with material. Remove contaminated clothing and wash before reuse. Discard contaminated shoes. Ensure good ventilation at the workplace. Use only in a well-ventilated area. Minimize dust generation and accumulation. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Protect against physical damage. Do not allow contact with water. Keep from contact with moist air and steam. Separate from incompatibles such as acids, food and feedstuffs, metals, alkalis 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.
Conditions for safe storage, including any incompatibilities	Store in a tightly closed container, in a cool, dry, ventilated area away from incompatible materials such as acids, food and feedstuffs, water/moisture, alkalis and oxidizing materials. Moisture sensitive. Keep well closed and protected from direct sunlight and moisture. Protect against physical damage. 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.
Storage Regulations	Refer Australian Standard AS/NZS 4452:1997 'The storage and handling of toxic substances'.
Storage Temperatures	Store at room temperature (15 to 25 °C recommended).

8. Exposure controls/personal protection

Occupational exposure limit values	Name	STEL		TWA		Footnote
		mg/m3	ppm	mg/m3	ppm	
	Sodium Fluoride			2.5		Fluorides (as F)
Other Exposure Information	These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity. A time weighted average (TWA) has been established for Fluorides (as F) (Safe Work Australia) of 2.5 mg/m ³ . The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.					
Appropriate engineering controls	Maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.					
Respiratory Protection	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.					
Eye Protection	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.					
Hand Protection	Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments. Avoid skin contact when removing gloves from					

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Personal Protective Equipment	hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste. Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.
Body Protection	Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
Hygiene Measures	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

9. Physical and chemical properties

Form	Solid
Appearance	White powder or colorless crystals.
Odour	Odourless.
Melting Point	993 °C
Boiling Point	1704 °C
Solubility in Water	Soluble (42 g/L @ 20 °C)
Solubility in Organic Solvents	Very slightly soluble in alcohol.
Specific Gravity	2.79 (Water = 1)
pH	~ 10.2 (40 g/l H ₂ O, 20 °C)
Vapour Pressure	1 hPa (1077 °C)
Vapour Density (Air=1)	1.45
Volatile Component	0 %vol @ 21 °C
Flammability	Non combustible material.
Molecular Weight	41.99

10. Stability and reactivity

Chemical Stability	Stable under ordinary conditions of use and storage.
Conditions to Avoid	Water/moisture, heat, hot surfaces, sparks, flames, or other sources of ignition, incompatible materials, dust generation.
Incompatible Materials	Acids, water/moisture, alkalies, metals, glass, oxidizing agents.
Hazardous Decomposition Products	Corrosive and highly toxic gases, hydrogen fluoride gas, disodium oxide, sodium oxides, halogenated compounds.
Possibility of hazardous reactions	Reacts with acids evolving hydrogen fluoride, an irritating, corrosive and highly toxic gas. Contact with metals may evolve flammable hydrogen gas. Alkali fluorides (except lithium salt) absorb sodium fluoride to form acid fluorides.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Ingestion	Toxic if swallowed. May cause irritation of the digestive tract and possible burns. May cause burning sensation, coughing and sore throat. May cause salivation, nausea, vomiting, diarrhea, abdominal pain, fever, and labored breathing. Symptoms of weakness, tremors, drowsiness, shallow respiration,
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	cardopedal spasm, convulsions, unconsciousness and coma may follow. Exposure to fluoride compounds can result in systemic toxic effects on the heart, liver, and kidneys. It may also deplete calcium levels in the body leading to hypocalcemia and death. May cause brain and kidney damage. Affects heart and circulatory system. May cause cardiac arrest. Death may occur from respiratory paralysis.
Inhalation	May cause irritation to the respiratory tract with possible burns, 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. Prolonged exposure to dusts, vapors, or mists may result in the perforation of the nasal septum. May cause systemic effects. Aspiration may lead to pulmonary oedema. May cause fluoride poisoning. Early symptoms include nausea, vomiting, diarrhea, and weakness. Later effects include central nervous system effects, cardiovascular effects and death.
Skin	Causes irritation and possible burns, especially if the skin is wet or moist, with redness and pain. Solutions are corrosive. Effects may not appear immediately. May cause skin rash (in milder cases), and cold and clammy skin with cyanosis or pale colour.
Eye	Causes serious eye irritation, redness, pain and possible burns. May cause serious eye damage. May cause chemical conjunctivitis and corneal damage. Effects may not immediately appear.
Respiratory sensitisation	Not classified based on available information.
Skin Sensitisation	Not classified based on available information.
Germ cell mutagenicity	Not classified based on available information.
Carcinogenicity	Not classified based on available information.
Reproductive Toxicity	Not classified based on available information.
STOT-single exposure	Not classified based on available information.
STOT-repeated exposure	Not classified based on available information.
Chronic Effects	Chronic exposure may cause mottling of teeth and bone damage (osteosclerosis) and chronic fluoride poisoning (fluorosis). Symptoms of fluorosis include weight loss, weakness, anaemia, brittle bones, calcified ligaments, general ill health and stiff joints. May cause reproductive and fetal effects. Effects may be delayed. Chronic exposure may cause lung damage. Laboratory experiments have resulted in mutagenic effects. Chronic exposure to fluoride compounds may cause systemic toxicity. Skeletal effects may include bone brittleness, joint stiffness, teeth discoloration, tendon calcification, and osteosclerosis. Animal studies have reported the development of tumors.
Serious eye damage/irritation	Eye Damage/Irritation: Category 2A H319 Causes serious eye irritation.
Skin corrosion/irritation	Skin Corrosion/Irritation: Category 2 H315 Causes skin irritation.

12. Ecological information

Ecotoxicity	Forms toxic and corrosive mixtures with water even if diluted. Hazard for drinking water supplies.
Persistence and degradability	Methods for the determination of biodegradability are not applicable to inorganic substances. Persistence: Soluble in water, Persistence is unlikely, based on information available.
Environmental Protection	Do not allow to enter waters, waste water, or soil!
Acute Toxicity - Fish	LC50 (Pimephales promelas): 180 mg/l /96 h.

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Acute Toxicity - Daphnia	EC50 (Daphnia magna): 338 mg/l /48 h.
Acute Toxicity - Algae	IC50 (Desmodesmus subspicatus): 850 mg/l /72 h. IC5 (Scenedesmus quadricauda): 249 mg/l /8 d (Maximum permissible toxic concentration).

13. Disposal considerations

Disposal Considerations	Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.
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14. Transport information

Transport Information	Dangerous Goods of Class 6 (Toxic and Infectious Substances) are incompatible in a placard load with any of the following: -Class 1, Class 3, if the Class 3 dangerous goods are nitromethane, Class 8, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids; and are incompatible with food and food packaging in any quantity.
U.N. Number	1690
UN proper shipping name	SODIUM FLUORIDE
Transport hazard class(es)	6.1
Hazchem Code	2Z
Packing Group	III
EPG Number	6.1.015
IERG Number	37
Environmental Hazards	Forms toxic and corrosive mixtures with water even if diluted. Hazard for drinking water.

15. Regulatory information

Regulatory Information	All the constituents of this product are listed on the Australian Inventory of Chemical Substances (AICS), or exempted. Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
Poisons Schedule	S6

16. Other Information

Literature References	'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'. Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals'. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand. Safe Work Australia, 'Hazardous Chemical Information System'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.
Contact Person/Point	Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT: All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy of the information contained herein. ChemSupply Australia Pty Ltd accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability

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for reliance on information provided in this data sheet or by our technical representatives.

**Empirical Formula
& Structural
Formula**

NaF

...End Of MSDS...

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