
MSDS**Material Safety Data Sheet**

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**HALOGENS**

An ISO 9001:2000 Certified Company
Manufacturing Of Fine Chemicals

SODIUM FLUORIDE

1. Product Identification

Synonyms: Fluorosafe**CAS No.:** 7681-49-4**Molecular Weight:** 41.99**Chemical Formula:** NaF

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Sodium Fluoride	7681-49-4	98.5 –100.5%	Yes

3. Hazards Identification

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by

Road and Rail; DANGEROUS GOODS.

This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Classification of the chemical:

Acute Oral Toxicity - Category 3

Skin Irritation - Category 2

Eye Irritation - Category 2A

SIGNAL WORD: DANGER

Product Name: SODIUM FLUORIDE Issued: 25/03/2015

Substance No: 000031020001

Hazard Statement(s):

H301 Toxic if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Version: 6

Precautionary Statement(s):

Prevention:

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves / protective clothing / eye protection / face protection.

No information found.

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Response:

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P330 Rinse mouth.

P321 Specific treatment (see First Aid Measures on Safety Data Sheet).

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.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents and container in accordance with local, regional, national, international regulations.

Other Hazards:

AUH032 Contact with acids liberates very toxic gas.

Poisons Schedule (SUSMP): S6 Poison.

4. First Aid Measures

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a

doctor at once. Urgent hospital treatment is likely to be needed.

Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen

remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully

recovered. Seek medical advice if effects persist.

Skin Contact:

If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with

running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

Eye Contact:

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop

by a Poisons Information Centre or a doctor, or for at least 15 minutes.

Product Name: SODIUM FLUORIDE Issued: 25/03/2015

Ingestion:

Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water.

Seek immediate

medical assistance.

Substance No: 000031020001

Indication of immediate medical attention and special treatment needed:

Treat symptomatically. For large exposures, systemic effects (hypocalcemia and hypomagnesia) may occur.

5. Fire Fighting Measures

Suitable Extinguishing Media:

Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon

dioxide, dry chemical powder).

Hazchem or Emergency Action Code: 2Z

Specific hazards arising from the chemical:

Non-combustible material.

Special protective equipment and precautions for fire-fighters:

Decomposes on heating emitting toxic fumes, including those of hydrogen fluoride, and sodium oxide.

Fire fighters to

wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of

decomposition.**Fire:**

Not considered to be a fire hazard.

Explosion:

Not considered to be an explosion hazard.

Fire Extinguishing Media:

Use any means suitable for extinguishing surrounding fire.

6. Accidental Release Measures

Emergency procedures/Environmental precautions:

Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:

Wear protective equipment to prevent skin and eye contact. Avoid breathing in dust. Work up wind or increase ventilation. Collect and seal in properly labelled containers or drums for disposal. DO NOT allow material to get wet.

7. Handling and Storage

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

Precautions for safe handling:

Avoid skin and eye contact and breathing in dust. Avoid handling which leads to dust formation. Keep out of reach of children.

Conditions for safe storage, including any incompatibilities:

Store in a cool, dry, well ventilated place. Protect from moisture. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for spills.

8. Exposure Controls/Personal Protection

Control Parameters: No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s):

Version: 6

Fluorides (as F): 8hr TWA = 2.5 mg/m₃

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As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

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

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Appropriate engineering controls:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace

Exposure Standards. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering

controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure

levels does not require engineering controls, then a detailed and documented risk assessment using the relevant

Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the

minimum PPE requirements.

Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work

situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, DUST MASK.



Wear overalls, chemical goggles and impervious gloves. Avoid generating and inhaling dusts. If determined by a risk

assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and

AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing

and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Powder or Crystals

Colour: White or Colourless

Odour: Odourless

Molecular Formula: NaF

Specific Gravity: 2.76

Relative Vapour Density (air=1): 1.45

Vapour Pressure (20 °C): Not available; 1 mm Hg @ 1077°C.

Flash Point (°C): Not applicable

Flammability Limits (%): Not applicable

Autoignition Temperature (°C): Not applicable

Solubility in water (g/L): 40 @ 15°C

Melting Point/Range (°C): 996

Boiling Point/Range (°C): 1695

pH: 8-10.5 (1% solution)

10. STABILITY AND REACTIVITY

Reactivity:

Product Name: SODIUM FLUORIDE

Reacts with acids.

Issued: 25/03/2015

Substance No: 000031020001

Chemical stability: Stable under normal conditions of use.

Version: 6

Possibility of hazardous reactions:

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Hazardous polymerisation will not occur.

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Conditions to avoid: Avoid dust generation. Avoid exposure to moisture.

Incompatible materials: Incompatible with acids.

Hazardous decomposition products:

Hydrogen fluoride. Sodium oxide.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: Swallowing may result in nausea, vomiting, and abdominal pain. Swallowing large amounts may cause muscle spasms, coma and death from respiratory failure.

Eye contact: An eye irritant.

Skin contact: Contact with skin will result in irritation.

Inhalation: Breathing in dust may result in respiratory irritation. Effects can include those described for 'INGESTION'.

Acute toxicity:

Oral LD50 (rat): 31 mg/kg.

Oral LD50 (mice): 44 mg/kg.

Respiratory or skin sensitisation:

Not a skin sensitiser (guinea pig).

Chronic effects: Chronic fluorine poisoning is possible. Intake of more than 1.5 mg/L of fluoride can cause dental

fluorosis with amounts of greater than 4 mg/L possibly causing skeletal fluorosis. Symptoms include weight loss,

brittle bones, anaemia, weakness, and stiffness of joints. Chronic exposure may result in adverse effects on the heart,

central nervous system, circulatory system, kidneys, and skeleton.

12. ECOLOGICAL INFORMATION

Ecotoxicity Avoid contaminating waterways.

96hr LC50 (fish): >100 mg/L

Product Name: SODIUM FLUORIDE

13. DISPOSAL CONSIDERATIONS

Issued: 25/03/2015

Substance No: 000031020001

Disposal methods:

Refer to Waste Management Authority. Dispose of contents and container in accordance with local, regional, national, international regulations.

14. TRANSPORT INFORMATION

Safety Data Sheet

Road and Rail Transport

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by

Road and Rail; DANGEROUS GOODS.

UN No: 1690

Transport Hazard Class: 6.1 Toxic

Packing Group: III

Proper Shipping Name or

Technical Name:

SODIUM FLUORIDE, SOLID

Hazchem or Emergency Action

Code:

2Z

Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for

transport by sea; DANGEROUS GOODS.

UN No: 1690

Transport Hazard Class: 6.1 Toxic

Packing Group: III

Proper Shipping Name or

Technical Name:

SODIUM FLUORIDE, SOLID

IMDG EMS Fire: F-A

IMDG EMS Spill: S-A

Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods

Regulations for transport by air; DANGEROUS GOODS.

UN No: 1690

Transport Hazard Class: 6.1 Toxic

Packing Group: III

Proper Shipping Name or

Technical Name:

SODIUM FLUORIDE, SOLID

15. REGULATORY INFORMATION**Classification:**

This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

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Version: 6**Poisons Schedule (SUSMP): S6****Safety Data Sheet**

This material is listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

'Registry of Toxic Effects of Chemical Substances'. Ed. D. Sweet, US Dept. of Health & Human Services: Cincinnati, 2012.

Product Name: SODIUM FLUORIDE Issued: 25/03/2015

This safety data sheet has been prepared by Ixom Operations Pty Ltd Toxicology & SDS Services.

Reason(s) for Issue:

Revised Primary SDS

Change in company details

Substance No: 000031020001

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the

material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd

cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage,

assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations

Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy

of which is available upon request.

Disclaimer:

HALOGENS provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose
