according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: May 03, 2019

1 Identification [•] Product identifier Trade name: Fluoride Standard, 1000 mg/L (ppm) · Product code: FS5000SS · Recommended use and restriction on use · Recommended use: Laboratory chemicals · Restrictions on use: No relevant information available. [•] Details of the supplier of the Safety Data Sheet Manufacturer/Supplier: AquaPhoenix Scientific, Inc. 860 Gitts Run Road Hanover, PA 17331 Phone: (717)632-1291 Toll-Free: (866)632-1291 info@aquaphoenixsci.com · Emergency telephone number: ChemTel Inc. (800)255-3924 (North America) +1 (813)248-0585 (International)

2 Hazard(s) identification

Classification of the substance or mixture

The product is not classified as hazardous according to the Globally Harmonized System (GHS).

[•] Label elements

· GHS label elements Not regulated.

- · Hazard pictograms: None.
- · Signal word: None
- · Hazard statements: None.
- · Precautionary statements: None.

• Other hazards There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

• Chemical characterization: Mixtures

· Compon	ents:
----------	-------

7681-49-4 sodium fluoride	Acute Tox. 3, H301 Skin Irrit. 2, H315; Eye Irrit. 2A, H319	0.221%
7732-18-5 Water		99.779%

· Additional information:

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret. For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

• Description of first aid measures

(Cont'd. on page 2)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: May 03, 2019

Trade name: Fluoride Standard, 1000 mg/L (ppm)

(Cont'd. of page 1)

- After inhalation: Supply fresh air; consult doctor in case of complaints. • After skin contact:
- Immediately rinse with water.

If skin irritation is experienced, consult a doctor.

- · After eye contact: Remove contact lenses if worn.
- After swallowing: Do not induce vomiting; immediately call for medical help.
- \cdot Most important symptoms and effects, both acute and delayed:
- Gastric or intestinal disorders when ingested.
- · Danger: No relevant information available.
- Indication of any immediate medical attention and special treatment needed: No relevant information available.

5 Fire-fighting measures

• Extinguishing media

- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- For safety reasons unsuitable extinguishing agents: No relevant information available.
- Special hazards arising from the substance or mixture
- During heating or in case of fire poisonous gases are produced.
- [•] Advice for firefighters
- · Protective equipment:
- Wear self-contained respiratory protective device.
- Wear fully protective suit.

Additional information: No relevant information available.

6 Accidental release measures

[•] Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

For large spills, wear protective clothing.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

Environmental precautions

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Methods and material for containment and cleaning up

Wipe up small spills with paper towel and discard.

For larger spills, add sawdust, chalk or other inert binding material, then sweep up and discard.

Send for recovery or disposal in suitable receptacles.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

[·] Handling

(Cont'd. on page 3)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: May 03, 2019

Trade name: Fluoride Standard, 1000 mg/L (ppm)

(Cont'd. of page 2)

Precautions for safe handling:

Use only in well ventilated areas. Prevent formation of aerosols.

Avoid splashes or sprav in opclosed of

Avoid splashes or spray in enclosed areas.

· Information about protection against explosions and fires: No special measures required.

[•] Conditions for safe storage, including any incompatibilities

· Requirements to be met by storerooms and receptacles: No special requirements.

· Information about storage in one common storage facility:

Store away from foodstuffs.

Do not store together with acids.

• Further information about storage conditions: Keep containers tightly sealed.

• **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

[·] Control parameters

· Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

• Exposure controls

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

• Engineering controls: Provide adequate ventilation.

- Breathing equipment: Not required under normal conditions of use.
- Protection of hands:



Protective gloves

Material of gloves

Neoprene gloves Butyl rubber, BR Nitrile rubber, NBR Natural rubber, NR Sensibilization by the components in the glove materials is possible. **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

 \cdot Body protection: Protection may be required for spills.

· Limitation and supervision of exposure into the environment

No relevant information available.

(Cont'd. on page 4)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: May 03, 2019

Trade name: Fluoride Standard, 1000 mg/L (ppm)

(Cont'd. of page 3)

9 Physical and chemical proper	rties
Information on basic physical a	nd chemical properties
· Appearance:	
Form:	Liquid
Color:	Colorless
· Odor:	Odorless
· Odor threshold:	Not determined.
· pH-value:	Not determined.
• Melting point/Melting range:	Not determined.
 Boiling point/Boiling range: 	100 °C (212 °F)
· Flash point:	The product is not flammable.
· Flammability (solid, gaseous):	Not applicable.
· Auto-ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
 Oxidizing properties: 	Non-oxidizing.
· Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)
· Density at 20 °C (68 °F):	1 g/cm³ (8.35 lbs/gal)
Relative density:	Not determined.
· Vapor density:	Not determined.
Evaporation rate:	Not determined.
· Solubility in / Miscibility with	
Water:	Fully miscible.
· Partition coefficient (n-octanol/wate	er): Not determined.
· Viscosity	
Dynamic:	Not determined.
Kinematic:	Not determined.
[•] Other information	No relevant information available.

10 Stability and reactivity

· Reactivity: No relevant information available.

• Chemical stability: Stable under normal temperatures and pressures.

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

[•] Possibility of hazardous reactions

Contact with acids releases toxic gases.

Hazardous gases may be released if heated above the decomposition point.

(Cont'd. on page 5)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: May 03, 2019

(Cont'd. of page 4)

Trade name:	Fluoride	Standard,	1000	mg/L (ppm)
-------------	----------	-----------	------	------------

Reacts with strong oxidizing agents.

· Conditions to avoid No relevant information available.

· Incompatible materials Strong acids

[•] Hazardous decomposition products

Under fire conditions only:

Danger of toxic fluorine based pyrolysis products.

11 Toxicological information

Information on toxicological effects

• Acute toxicity: Based on available data, the classification criteria are not met.

· LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Oral LD50 23529 mg/kg (rat)

7681-49-4 sodium fluoride

Oral LD50 52 mg/kg (rat)

· Primary irritant effect:

• On the skin: Based on available data, the classification criteria are not met.

 \cdot On the eye: Based on available data, the classification criteria are not met.

 \cdot Sensitization: Based on available data, the classification criteria are not met.

IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

• NTP (National Toxicology Program):

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

Ingestion.

Inhalation. Eve contact.

Skin contact.

• Acute effects (acute toxicity, irritation and corrosivity): No relevant information available.

· Repeated dose toxicity: No relevant information available.

· Germ cell mutagenicity: Based on available data, the classification criteria are not met.

• Carcinogenicity: Based on available data, the classification criteria are not met.

• Reproductive toxicity: Based on available data, the classification criteria are not met.

• **STOT-single exposure:** Based on available data, the classification criteria are not met.

• STOT-repeated exposure: Based on available data, the classification criteria are not met.

· Aspiration hazard: Based on available data, the classification criteria are not met.

12 Ecological information

[·] Toxicity

· Aquatic toxicity No relevant information available.

(Cont'd. on page 6)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: May 03, 2019

Trade name: Fluoride Standard, 1000 mg/L (ppm)

(Cont'd. of page 5)

· Persistence and degradability No relevant information available.

· Bioaccumulative potential: No relevant information available.

· Mobility in soil: No relevant information available.

[•] Additional ecological information

· General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Other adverse effects No relevant information available.

13 Disposal considerations

[·] Waste treatment methods

· Recommendation:

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

[·] Uncleaned packagings

• Recommendation: Disposal must be made according to official regulations.

14 Transport information	
UN-Number	
· DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.
 UN proper shipping name DOT, ADR/RID/ADN, IMDG, IATA 	Not regulated.
 Transport hazard class(es) 	
· DOT, ADR/RID/ADN, IMDG, IATA	
· Class	Not regulated.
· Packing group	
· DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.
· Environmental hazards	Not applicable.
Special precautions for user	Not applicable.
[·] Transport in bulk according to Annex	ll of
MARPOL73/78 and the IBC Code	Not applicable.

15 Regulatory information

 Safety, health and environmental regulations/legislation specific for the substance or mixture
 United States (USA)
 SARA

(Cont'd. on page 7)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: May 03, 2019

Section 302 (extremely hazardous substances): None of the ingredients are listed. Section 355 (extremely hazardous substances): None of the ingredients are listed. Section 313 (Specific toxic chemical listings): None of the ingredients are listed. Section 313 (Specific toxic chemical listings): None of the ingredients are listed. TSCA (Toxic Substances Control Act) All ingredients are listed or exempt. Proposition 65 (California) Chemicals known to cause cancer: None of the ingredients are listed. Chemicals known to cause developmental toxicity for females: None of the ingredients are listed. Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. EPA (Environmental Protection Agency): None of the ingredients are listed. IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride Canadian Domestic Substances List (DSL): (Substances not listed.) All ingredients are listed.	(Cont'd. of pag
Section 355 (extremely hazardous substances): None of the ingredients are listed. Section 313 (Specific toxic chemical listings): None of the ingredients are listed. TSCA (Toxic Substances Control Act) All ingredients are listed or exempt. Proposition 65 (California) Chemicals known to cause cancer: None of the ingredients are listed. Chemicals known to cause developmental toxicity for females: None of the ingredients are listed. Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity. None of the ingredients are listed. Chemicals known to cause developmental toxicity. None of the ingredients are listed. Chemicals known to cause developmental toxicity. None of the ingredients are listed. Chemicals known to cause developmental toxicity. None of the ingredients are listed. Chemicals known to cause developmental toxicity. None of the ingredients are listed. Chemicals known to cause developmental toxicity. None of the ingredients are listed. Chemicals known to cause developmental toxicity. None of the ingredients are listed. Chemicals known to cause developmental toxicity. None of the ingredients are listed. Chemicals known to cause developmental toxicity. None of the ingredients are listed. Chemicals known to cause developmental toxicity. None of the ingredients are listed. Chemicals known to cause developmental toxicity. None of the ingredients are listed. Chemicals known to cause developmental toxicity. None of the ingredients are listed. Chemicals known to cause developmental toxicity. None of the ingredients are listed. Chemicals known to cause developmental toxicity. None of the ingredients are listed. Chemicals known to cause developmental toxicity. No	
None of the ingredients are listed. Section 313 (Specific toxic chemical listings): None of the ingredients are listed. TSCA (Toxic Substances Control Act) All ingredients are listed or exempt. Proposition 65 (California) Chemicals known to cause cancer: None of the ingredients are listed. Chemicals known to cause developmental toxicity for females: None of the ingredients are listed. Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. EPA (Environmental Protection Agency): None of the ingredients are listed. IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride Canadian Domestic Substances List (DSL): (Substances not listed.)	
Section 313 (Specific toxic chemical listings): None of the ingredients are listed. TSCA (Toxic Substances Control Act) All ingredients are listed or exempt. Proposition 65 (California) Chemicals known to cause cancer: None of the ingredients are listed. Chemicals known to cause developmental toxicity for females: None of the ingredients are listed. Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. EPA (Environmental Protection Agency): None of the ingredients are listed. IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride Canadian Domestic Substances List (DSL): (Substances not listed.)	
None of the ingredients are listed. TSCA (Toxic Substances Control Act) All ingredients are listed or exempt. Proposition 65 (California) Chemicals known to cause cancer: None of the ingredients are listed. Chemicals known to cause developmental toxicity for females: None of the ingredients are listed. Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. EPA (Environmental Protection Agency): None of the ingredients are listed. IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride Canadian Domestic Substances List (DSL): (Substances not listed.)	
• TSCA (Toxic Substances Control Act) All ingredients are listed or exempt. • Proposition 65 (California) • Chemicals known to cause cancer: None of the ingredients are listed. • Chemicals known to cause developmental toxicity for females: None of the ingredients are listed. • Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. • Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. • Chemicals known to cause developmental toxicity: None of the ingredients are listed. • Chemicals known to cause developmental toxicity: None of the ingredients are listed. • Chemicals known to cause developmental toxicity: None of the ingredients are listed. • EPA (Environmental Protection Agency): None of the ingredients are listed. • IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride • Canadian Domestic Substances List (DSL): (Substances not listed.)	
All ingredients are listed or exempt. Proposition 65 (California) Chemicals known to cause cancer: None of the ingredients are listed. Chemicals known to cause developmental toxicity for females: None of the ingredients are listed. Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. EPA (Environmental Protection Agency): None of the ingredients are listed. IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride Canadian Domestic Substances List (DSL): (Substances not listed.)	
 Proposition 65 (California) Chemicals known to cause cancer: None of the ingredients are listed. Chemicals known to cause developmental toxicity for females: None of the ingredients are listed. Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. EPA (Environmental Protection Agency): None of the ingredients are listed. IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride Canadian Domestic Substances List (DSL): (Substances not listed.) 	
Chemicals known to cause cancer: None of the ingredients are listed. Chemicals known to cause developmental toxicity for females: None of the ingredients are listed. Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. EPA (Environmental Protection Agency): None of the ingredients are listed. IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride Canadian Domestic Substances List (DSL): (Substances not listed.)	
None of the ingredients are listed. • Chemicals known to cause developmental toxicity for females: None of the ingredients are listed. • Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. • Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. • Chemicals known to cause developmental toxicity: None of the ingredients are listed. • EPA (Environmental Protection Agency): None of the ingredients are listed. • IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride • Canadian Domestic Substances List (DSL): (Substances not listed.)	
• Chemicals known to cause developmental toxicity for females: None of the ingredients are listed. • Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. • Chemicals known to cause developmental toxicity: None of the ingredients are listed. • Chemicals known to cause developmental toxicity: None of the ingredients are listed. • EPA (Environmental Protection Agency): None of the ingredients are listed. • IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride • Canadian Domestic Substances List (DSL): (Substances not listed.)	
None of the ingredients are listed. • Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. • Chemicals known to cause developmental toxicity: None of the ingredients are listed. • EPA (Environmental Protection Agency): None of the ingredients are listed. • IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride • Canadian Domestic Substances List (DSL): (Substances not listed.)	
Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. EPA (Environmental Protection Agency): None of the ingredients are listed. IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride Canadian Domestic Substances List (DSL): (Substances not listed.)	
None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. EPA (Environmental Protection Agency): None of the ingredients are listed. IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride Canadian Domestic Substances List (DSL): (Substances not listed.)	
Chemicals known to cause developmental toxicity: None of the ingredients are listed. EPA (Environmental Protection Agency): None of the ingredients are listed. IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride Canadian Domestic Substances List (DSL): (Substances not listed.)	
None of the ingredients are listed. EPA (Environmental Protection Agency): None of the ingredients are listed. IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride Canadian Domestic Substances List (DSL): (Substances not listed.)	
• EPA (Environmental Protection Agency): None of the ingredients are listed. • IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride • Canadian Domestic Substances List (DSL): (Substances not listed.)	
None of the ingredients are listed. IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride Canadian Domestic Substances List (DSL): (Substances not listed.)	
· IARC (International Agency for Research on Cancer): 7681-49-4 sodium fluoride · Canadian Domestic Substances List (DSL): (Substances not listed.)	
7681-49-4 sodium fluoride Canadian Domestic Substances List (DSL): (Substances not listed.)	
Canadian Domestic Substances List (DSL): (Substances not listed.)	
All ingredients are listed.	
Other information	
This information is based on our present knowledge. However, this shall not constitute a gu specific product features and shall not establish a legally valid contractual relationship.	
 Abbreviations and acronyms: ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation 	arantee for a

CAS: Chemical Abstracts Service (division of the American Chemical Society)

- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent OSHA: Occupational Safety & Health Administration
- Acute Tox. 3: Acute toxicity Category 3
- Skin Irrit. 2: Skin corrosion/irritation Category 2
- Eye Irrit. 2A: Serious eye damage/eye irritation Category 2A
- · Sources

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/ overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org) Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

(Cont'd. on page 8)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: May 03, 2019

Trade name: Fluoride Standard, 1000 mg/L (ppm)

(Cont'd. of page 7) Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5. Safety Data Sheets, Individual Manufacturers

SDS Prepared by: ChemTel Inc. 1305 North Florida Avenue Tampa, Florida USA 33602-2902 Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573 Website: www.chemtelinc.com