



Material Safety Data Sheet

Fluoride Standards with TISAB (0.5ppm, 1ppm, 2ppm, 5ppm, 10ppm)

Section 1 - Chemical Product and Company Identification

MSDS Name:

Fluoride Standards with TISAB (0.5ppm, 1ppm, 2ppm, 5ppm, 10ppm)

Catalog Numbers:

LC14610, LC14620, LC14630, LC14635, LC14640

Synonyms:

None

Section 2 – Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	>87
7647-14-5	Sodium chloride	5.8
64-19-7	Acetic acid	5.7
1310-73-2	Sodium hydroxide	0.5
482-54-2	CDTA	0.4
7681-49-4	Sodium fluoride	<0.0012%

Section 3 - Hazards Identification

Emergency Overview

Appearance: *clear, colorless solution*

Caution. May cause irritation to eyes and skin. May be harmful if swallowed.

Target Organs: *eyes, skin, respiratory tract, teeth*

Potential Health Effects

Eye:

May cause eye irritation.

Skin:

May cause skin irritation.

Ingestion:

May cause gastrointestinal tract irritation with nausea, vomiting, and diarrhea.



Material Safety Data Sheet

Fluoride Standards with TISAB (0.5ppm, 1ppm, 2ppm, 5ppm, 10ppm)

Inhalation:

May cause respiratory tract irritation.

Chronic:

Exposure to fluoride compounds can result in systemic toxic effects on the heart, liver, and kidneys. Chronic ingestion or inhalation of fluoride compounds may cause chronic fluoride poisoning. May cause dermatitis and conjunctivitis.

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid.

Skin:

Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion:

Do not induce vomiting. Give conscious victim 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid if irritation or symptoms occur.

Inhalation:

Move victim to fresh air immediately. Get medical aid if irritation or other symptoms appear.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:

Not applicable.

Flash Point:

Not applicable.

NFPA Rating:

Health- 1, Flammability- 0, Instability- 0.

Explosion Limits:

Lower: n/a Upper: n/a

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material such as sand, vermiculite, or diatomaceous earth, and transfer to a suitable container labeled for later disposal.



Material Safety Data Sheet

Fluoride Standards with TISAB (0.5ppm, 1ppm, 2ppm, 5ppm, 10ppm)

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Use with adequate ventilation.

Storage:

Store tightly capped in a cool, dry, well-ventilated area away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities using or storing this material should be equipped with an eyewash and safety shower. Provide local exhaust or general dilution ventilation to keep airborne levels below the permissible exposure limits.

Exposure Limits:

Chemical Name:	ACGIH	NIOSH	OSHA
Acetic acid	10 ppm TWA 25 mg/m ³ TWA	10 ppm TWA; 25 mg/m ³ TWA; 50 ppm IDLH	10 ppm TWA 15 ppm STEL
Sodium fluoride	2.5 mg/m ³ TWA (as F) (listed under Fluorides)	2.5 mg/m ³ TWA (as F) 250 mg/m ³ IDLH (as F)	2.5 mg/m ³ TWA (as F) (listed under Fluorides)
Sodium hydroxide	2 mg/m ³ Ceiling	10 mg/m ³ IDLH	2 mg/m ³ TWA

No exposure limits have been established for CDTA, sodium chloride, and water.

OSHA Vacated PELs:

Acetic acid: 10 ppm TWA; 25 mg/m³ TWA

Personal Protective Equipment**Eyes:**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133. Do not wear contact lenses when working with chemicals.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134. Always use a NIOSH-approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State:	Liquid
Color:	Colorless
Odor:	Slight vinegar-like odor
pH:	5.4
Vapor Pressure:	Not available
Vapor Density:	Not available
Evaporation Rate:	Not available
Viscosity:	Not available



Material Safety Data Sheet

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Boiling Point:	Not available
Freezing/Melting Point:	Not available
Decomposition Temperature:	Not available
Solubility in water:	Soluble
Specific Gravity/Density:	1.05
Molecular Formula:	Not applicable
Molecular Weight:	Not applicable

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials, excess heat.

Incompatibilities with Other Materials:

Oxidizers, glass.

Hazardous Decomposition Products:

Oxides of nitrogen, carbon monoxide, carbon dioxide, acetic acid vapors, hydrogen fluoride.

Hazardous Polymerization:

Has not been reported.

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.	CAS# 7681-49-4: WB0350000.
CAS# 7647-14-5: VZ4725000.	CAS# 1310-73-2: WB4900000.
CAS# 64-19-7: AF1225000.	CAS# 482-54-2: AG5000000.

LD50/LC50:

CAS# 7732-18-5:
Oral, rat: LD50 = >90 mL/kg.

CAS# 7647-14-5:
Oral, rat: LD50 = 3 gm/kg.

CAS# 64-19-7:
Inhalation, mouse: LC50 = 5620 ppm/1H
Oral, rat: LD50 = 3310 mg/kg
Skin, rabbit: LD50 = 1060 mg/kg.

CAS# 7681-49-4:
Oral, mouse: LD50 = 57 mg/kg
Oral, rat: LD50 = 52 mg/kg.

CAS# 1310-73-2:
No information found.

CAS# 482-54-2:
No information found.

Carcinogenicity:

None of the components are listed as carcinogens by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

See actual entry in RTECS for complete information.



Material Safety Data Sheet

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Teratogenicity:

See actual entry in RTECS for complete information.

Reproductive:

See actual entry in RTECS for complete information.

Mutagenicity:

See actual entry in RTECS for complete information.

Neurotoxicity:

No information found

Section 12 - Ecological Information

No information found

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

US Federal**TSCA:**

All components are listed on the TSCA inventory.

SARA Reportable Quantities (RQ):

CAS# 64-19-7: final RQ = 5000 pounds (2270 kg)

CAS# 7681-49-4: final RQ = 1000 pounds (454 kg)

CAS# 1310-73-2: final RQ = 1000 pounds (454 kg)

CERCLA/SARA Section 313:

None of the components are on this list.

OSHA - Highly Hazardous:

None of the chemicals in this product are considered highly hazardous by OSHA.

US State**State Right to Know:**

Acetic acid can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

Sodium fluoride can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Massachusetts.



Material Safety Data Sheet

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Sodium hydroxide can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California Regulations:

None.

European/International Regulations

Canadian DSL/NDSL:

All components are listed on Canada's DSL List.

Canada Ingredient Disclosure List:

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 7647-14-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 64-19-7 is listed on Canada's Ingredient Disclosure List.

CAS# 7681-49-4 is listed on Canada's Ingredient Disclosure List.

CAS# 1310-73-2 is listed on Canada's Ingredient Disclosure List.

CAS# 482-54-2 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: August 23, 1998

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