



STARTER

Safety Data Sheet

Revision Date: 1/4/2021

SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifier

Trade Name STARTER
Product Form Mixture
Product Code 11-12720

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of Product Acidic Presoak

1.3 Details of the Supplier of the safety data sheet

ChemQuest Inc.
21365 Hamburg Ave.
Lakeville, MN 55024
(877)437-3478
infocq@chemquestinc.com

1.4 Emergency telephone number

Emergency Number ChemTrec 1-800-424-9300

SECTION 2: Hazards Identification

2.1 Classification of the substance

Classification

<u>Hazard Code</u>	<u>Hazard Class</u>	<u>Hazard Category</u>
H301	Acute toxicity, oral	3
H311	Acute toxicity, dermal	3
H314	Skin corrosion/irritation	1B
H317	Sensitization, skin	1
H332	Acute toxicity, inhalation	4
H402	Hazardous to the aquatic environment, acute toxicity	3
H412	Hazardous to the aquatic environment, chronic toxicity	3

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAEFTY PRACTICES

2.2 Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US): **Danger**

Hazard Statements (GHS-US):

H301: Toxic if swallowed
H311: Toxic in contact with skin
H314: Causes severe skin burns and eye damage
H317: May cause allergic skin reaction
H332: Harmful if inhaled
H402: Harmful to aquatic life
H412: Harmful to aquatic life with long lasting effects

Precautionary Statements (GHS-US):

P260: Do not breathe dust/fumes/gas/mist/vapors/spray
P264: Wash thoroughly after handling
P270: Do not eat, drink or smoke when using this product
P271: Use only outdoors or in a well-ventilated area

STARTER

Safety Data Sheet

P272: Contaminated work clothing should not be allowed out of the workplace
P273: Avoid release into the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection
P312: Call a POISON CENTER or doctor/physician if you feel unwell
P321: Specific treatment (see section 4)
P322: Specific measures (see section 4)
P363: Wash contaminated clothing before reuse
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P302+P352: IF ON SKIN: Wash with soap and water
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P333+P313: If skin irritation or a rash occurs: Get medical advice/attention
P405: Store locked up
P501: Dispose of contents/container in accordance with local, state and federal authorities.

2.3 Other Hazards

No additional information available

2.4 Unknown acute toxicity (GHS-US)

No Data Available

SECTION 3: Composition/Information on Ingredients

3.1 Substance

Not applicable

3.2 Mixture

Ingredient Name	CAS #	Composition
Water	7732-18-5	>75%
Ammonium Hydrogen Fluoride	1341-49-7	1-5%
Etidronic acid	2809-21-4	1-5%
Nonylphenol, ethoxylated	127087-87-0	1-5%
Ethoxylated alcohol phosphate ether	68130-47-2	1-5%
Hydrofluoric Acid	7664-39-3	1-5%

SECTION 4: First Aid Measures

4.1 Description of first aid measures

First-Aid measures general	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-Aid after inhalation	IF INHALED. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. Use artificial respiration and oxygen if needed. If irritation persists, seek medical attention.
First-Aid after skin contact	IF ON SKIN. Wash with soap and water. IF ON SKIN (or hair). Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a POISON CENTER or doctor/physician if you feel unwell. Immediately rinse with plenty of water (for at least 15 minutes). Treat exposed area with calcium gluconate 2.5% gel. Get prompt medical attention.
First-Aid after eye contact	IF IN EYES. Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Irrigate with calcium gluconate 1% saline solution. Get prompt medical attention.
First-Aid after ingestion	IF SWALLOWED. Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting. Dilute stomach contents by drinking water. If vomiting occurs

STARTER

Safety Data Sheet

spontaneously, keep head below hips to prevent breathing vomit into lungs. Call physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/injuries	Toxic if swallowed. Toxic in contact with skin. Causes severe skin burns and eye damage. May cause allergic skin reaction. Harmful if inhaled.
Symptoms/injuries after inhalation	Harmful if inhaled.
Symptoms/injuries after skin contact	Toxic in contact with skin. Causes severe skin burns and eye damage. May cause allergic skin reaction.
Symptoms/injuries after eye contact	Causes severe skin burns and eye damage.
Symptoms/injuries after ingestion	Toxic if swallowed.
Chronic symptoms	No data available.

4.3 Indication of immediate medical attention and special treatment needed

CALCIUM GLUCONATE GEL: Wearing chemical protective gloves, start massaging 2.5% calcium gluconate gel into the burn site. Apply gel frequently and massage continuously until medical attention is available. Quickly transport victim to an emergency care facility. Double bag, seal, label and leave contaminated clothing, shoes and leather goods at the scene for safe disposal.

SECTION 5: Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray.

5.2 Special hazards arising from the substance or mixture

Fire Hazard	The product is not flammable.
Explosion Hazard	The product is not explosive.
Reactivity	Concentrated solution contact with metals will produce hydrogen gas.

5.3 Special hazards arising from the substance or mixture

Firefighting instructions	Do not dispose of fire-fighting water in the environment. Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.
Protection during firefighting	Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

General measures Evacuate area. Keep upwind. Ventilate area. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8). If burned in a fire, this product produces extremely corrosive and very toxic hydrogen fluoride gas or fumes. Contact with metals, such as iron or steel, slowly releases extremely flammable and potentially explosive hydrogen gas. Closed containers may rupture violently and suddenly release large amounts of product when exposed to fire or excessive heat for a sufficient period of time. Firefighters should wear a positive pressure self-contained respirator (SCBA) and full-body encapsulating chemical protective suit.

6.1.1 For non-emergency personnel

Protective equipment	Wear Protective equipment as described in Section 8.
Emergency procedures	Contain the spill. Do not let product enter drains. Evacuate unnecessary personnel.

6.1.2 For emergency responders

Protective equipment	Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.
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6.2 Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3 Methods and material for containment and cleaning up

For containment	Prevent entry to sewers and public waters. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up	Contain spill with absorbent material which does not react with spilled material and cautiously dilute with large excess of water. Provide good ventilation. Contaminated absorbent material will pose the same hazards as the spilled product. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Qualified clean-up personnel may

STARTER

Safety Data Sheet

neutralize carefully with soda ash or lime. An approved calcium source may be needed to neutralize excess fluoride. Material will fume during neutralization; approach from upwind.

6.4 reference to other sections

No additional information available.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Precautions for safe handling

Do not handle until all safety precautions and first aid information have been read and understood. Causes severe burns which may not be readily apparent to any exposed areas. Treat any exposures. Wear proper safety equipment including chemically resistant gloves, goggles and face shield. Protective outerwear is highly recommended. Use only with adequate ventilation. Do not move to unmarked containers. Do not use metal containers. This product is incompatible with glass, alkaline materials and most metals. This product may release hydrogen gas in contact with some materials, therefore keep away from sources of ignition.

7.2 Conditions for safe storage, including and incompatibilities

Storage conditions

Store locked up. Store in approved containers only. Do not store in metal or glass containers. Do not store in direct sunlight. Empty container may contain hazardous residue. Do not add any other material to the container. Do not wash down the drain. Do not get in eyes, on skin, or on clothing. Wash well after use. Handle in accordance with good storage and handling practices. Do not allow smoking or food consumption while handling. Keep container in a cool, well ventilated place away from heat sources and incompatible materials (See Section 10.5). Keep container tightly closed.

7.3 Specific end uses

No additional information

SECTION 8: Exposure Controls/Personal Protection

8.1 control parameters

No OSHA and ACGIH PEL's or TLV's for the listed ingredients of this product unless listed stated below:

Hydrogen fluoride (as F), CAS # 7664-39-3			
OSHA PEL (TWA)	OSHA PEL (STEL)	OSHA PEL (Ceiling)	ACGIH-TLV
3 ppm	Not Established	Not Established	0.5 ppm (TWA), 2 ppm (Ceiling)

8.2 Exposure Controls

Personal protective equipment

Protective safety glasses or goggles. Chemically resistant gloves. Protective clothing. Face shield. Respiratory protection of the dependent type.

Hand protection

Chemical resistant gloves.

Eye protection

Use chemically resistant safety glasses or goggles. A face shield should be worn when possibility exists for eye or face contact due to spraying liquid or airborne particles.

Skin and body protection

Wear long sleeves. Wear suitable protective clothing. Face shield when possibility exists contact due to spraying liquid or airborne particles.

Respiratory protection

Use approved respiratory protection equipment. Special ventilation may be required to avoid exceeding exposure limits.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Tinted Liquid
Color	Orange
Odor	Orange
Odor threshold	No data available
pH	1.5
Relative Evaporation rate (butyl)	No data Available
Melting point	No data Available
Freezing point	No data Available

STARTER

Safety Data Sheet

Boiling point	No data Available
Flash point	No Data Available
Self ignition point	No data Available
Decomposition temperature	No data Available
Flammability (solid, gas)	No data Available
Vapor pressure	No data Available
Relative vapor density at 20° C	No data Available
Relative Density	1.046 g/ml
Solubility	Water soluble
Log Pow	No data Available
Log Kow	No data Available
Viscosity: Kinematic	No data Available
Viscosity: dynamic	No data Available
Explosive properties	No data Available
Oxidizing properties	No data Available
Explosive Limits	No data Available

9.2 Exposure Controls

No additional information available

SECTION 10: Stability and reactivity

10.1 Reactivity

Contact with reactive metals (e.g. aluminum) may result in the generation of hydrogen gas.

10.2 Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

10.3 Possibility of hazardous reactions

Corrosive in contact with metals. Contact with metallic substances may release flammable hydrogen gas. Contact with strong Bases will cause excessive heat and splattering.

10.4 Conditions to avoid

None known

10.5 Incompatible Materials

Avoid contact with: glass, water, metals, alkalis, oxidizers, strong bases, strong acids, inorganic acids, inorganic bases, and strong reducers

10.6 Hazardous decomposition products

Thermal decomposition can result in: phosphines, hydrogen gas, hydrocarbons, carbon oxides, carbon dioxide, toxic fluorides, nitrogen oxides, carbon monoxide, hydrogen fluoride, organic compounds, toxic ammonia fumes, oxides of phosphorus, and organic compounds which may be toxic

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Oral LD50: 227 mg/kg (rat) Calculated

Dermal LD50: 225 mg/kg (rabbit) Calculated

Inhalation LD50: 2.12 mg/l (Dust/mist (Rat)) Calculated

Skin Corrosion/irritation Causes severe skin burns and eye damage

Serious eye damage/irritation Causes severe skin burns and eye damage

Respiratory or skin sensitization May cause allergic skin reaction

Germ cell mutagenicity Not Classified

Carcinogenicity Not Classified

Reproductive toxicity Not Classified

Specific organ toxicity single exposure Not Classified

Specific organ toxicity repeated exposure Not Classified

STARTER

Safety Data Sheet

Aspiration hazard	Not Classified
Symptoms/injuries after inhalation	See Section 4
Symptoms/injuries after skin contact	See Section 4
Symptoms/injuries after eye contact	See Section 4
Symptoms/injuries after ingestion	See Section 4
Chronic symptoms	Not Classified

Additional Information : The fluoride ion from hydrofluoric acid reduces serum calcium levels, which can cause severe injury and possibly fatality through hypocalcemia. HF is highly destructive to mucous membranes, skin, bones, eyes and the upper respiratory tract. Damages caused by HF may NOT be immediately noticeable by pain or blistering, so take extra precaution when handling. HF attacks the body slowly, so the full extent of tissue damage may not be noticed for 12-24 hours after contact. (See Section 4 for First Aid guidelines)

SECTION 12: Ecological information

12.1 Toxicity

No Data

12.2 Persistence and degradability

No Data

12.3 Bioaccumulative potential

No Data

12.4 Mobility in soil

No Data

12.5 Other adverse effect

No Data

SECTION 13: Disposal Considerations

13.1 Waste Treatment methods

Waste treatment methods Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without NPDES permit.

Waste disposal recommendations Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released to the environment.

SECTION 14: Transportation information

14.1 UN number, proper shipping name, class and packaging groups.

Domestic Ground Non-Bulk Shipments

UN2817, AMMONIUM HYDROGEN FLUORIDE, SOLUTION, 8, (6.1), II

14.2 Additional information

Not available

SECTION 15: Regulatory Information

15.1 Federal regulations

TSCA Inventory: The components of this product are listed.

SARA 311/312 Hazard category (40 CFR 370.2): Acute and chronic health hazard.

SARA 313 Toxic Release Reporting (40CFR Part 372): Nonylphenol, ethoxylated, CAS# 127087-87-0, 1-5% by wt.

SARA 302 EHS Emergency Planning (40CFR Part 355): Hydrofluoric Acid, CAS# 7664-39-3, RQ 100 lbs.

SARA 304 EHS Emergency Planning (40CFR Part 355): Hydrofluoric Acid, CAS# 7664-39-3, RQ 100 lbs.

CERCLA Section 102-103 HS Released Reporting (40 CFR part 302-102a): Hydrofluoric Acid, CAS# 7664-39-3, RQ 100 lbs./ Ammonium Hydrogen Fluoride, CAS# 1341-49-7, RQ 100 lbs.

15.2.1 International regulations

No Data

15.2.2 National regulations

STARTER

Safety Data Sheet

No Data

15.3 State Regulations

California Prop. 65

Approximate quantities by weight

- Ethylene oxide/ cancer/ CAS# 75-21-8/ Trace
- Ethylene oxide / developmental, female/ CAS# 75-21-8/ Trace
- Ethylene oxide / developmental, male / CAS# 75-21-8/ Trace

New Jersey Right to Know

Approximate quantities by weight

- AMMONIUM BIFLUORIDE/ CAS# 1341-49-7/ 1-5% by wt.
- HYDROGEN FLUORIDE/ CAS# 7664-39-3/ 1-5% by wt.
- PHOSPHOROUS ACID, ortho/ CAS# 13598-36-2/ 0.1-1% by wt.
- AMMONIUM FLUORIDE/ CAS# 12125-01-8/ 0.1-1% by wt.
- GLYCERIN/ CAS# 56-81-5/ Trace
- ETHYLENE OXIDE/ CAS# 75-21-8/ Trace

SECTION 16: Other Information

Other information	None
NFPA	
NFPA Health Hazard	3
NFPA Fire Hazard	1
NFPA Reactivity	1
HMIS	
Health	3
Flammability	1
Physical	1
Personal Protection	X

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