

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Product name : FLO-NEW
Product code : 357

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Laundry sour
Restrictions on use : For professional use only

1.4. Supplier's details

Christeyns North America, LLC
311 Staton Road
Greenville, NC 27834
USA
T 252-756-8616 / 800.869.6171
info@christeyns.us - www.christeyns.com

1.5. Emergency phone number

Emergency number : VELOCITY EHS (800) 255-3924 (24 HOURS)
(For use only in the event of emergencies involving a spill, leak, fire, exposure, or accident involving chemicals)

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Corrosive to metals, Category 1	H290	May be corrosive to metals.
Acute toxicity (oral), Category 4	H302	Harmful if swallowed.
Acute toxicity (dermal), Category 4	H312	Harmful in contact with skin.
Acute toxicity (inhalation), Category 4	H332	Harmful if inhaled.
Skin corrosion/irritation, Category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation, Category 1	H318	Causes serious eye damage.

Full text of H statements : see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :  

Signal word (GHS US) : Danger

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Hazard statements (GHS US)	: H290 - May be corrosive to metals H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled H314 - Causes severe skin burns and eye damage
Precautionary statements (GHS US)	: P234 - Keep only in original packaging. P260 - Do not breathe fumes, mists, vapors, or spray. P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area. P280 - Wear protective gloves, protective clothing, eye protection, and face protection. P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting. P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 - If inhaled: Remove person to fresh air and keep 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. P310 - Immediately call a poison center or doctor. P321 - Specific treatment (see supplemental first aid instruction on this label). P363 - Take off immediately all contaminated clothing and wash it before reuse. P390 - Absorb spillage to prevent material-damage. P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Hexafluorosilicic acid	CAS-No.: 16961-83-4	10 - 30
Hydrofluoric acid	CAS-No.: 7664-39-3	0.1 - 1

Full text of hazard classes and H-statements : see section 16

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Treat symptomatically. Get medical attention immediately.
First-aid measures after skin contact	: Remove contaminated clothing and wash before reuse. Rinse skin with plenty of water for at least 15 minutes. If exposed to small amounts, get medical attention if symptoms occur or irritation persists. If exposed to large amounts, get medical attention immediately.
First-aid measures after eye contact	: Rinse immediately with water for 15 minutes, occasionally lifting upper and lower eyelids. Remove contact lenses, if present, and easy to do. Continue rinsing. Get medical attention immediately.
First-aid measures after ingestion	: Rinse mouth with water if the person is conscious. Do not induce vomiting unless directed by medical personnel. Get medical attention immediately.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/injuries after inhalation	: Causes severe burns to the respiratory system. Serious effects may be delayed following exposure.
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Symptoms/injuries after skin contact	: Burning pain and severe corrosive skin damage. Serious effects may be delayed following exposure.
Symptoms/injuries after eye contact	: Liquid and vapor corrosive to eyes; will cause permanent damage if not rinsed promptly. Serious effects may be delayed following exposure.
Symptoms/injuries after ingestion	: Corrosive to mouth, throat & stomach; damage to digestive tract may be severe & life-threatening. May cause acute or chronic fluorosis. Serious effects may be delayed following exposure.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: Serious effects may be delayed following exposure. The exposed person may need to be kept under medical surveillance for 48 hours. Hyperkalemia, hyperphosphatemia, hypomagnesemia, or hypocalcemia may occur from acute oral ingestion or dermal burns to 1% of the body surface area or greater. For systemic poisoning, serum electrolytes including calcium and magnesium, and renal function should be monitored. Systemic hypocalcemia and hypomagnesemia may cause cardiac dysrhythmias and cardiovascular collapse. Administer sufficient calcium and magnesium to maintain serum concentrations in the high-normal range. Dermal contact may be treated by calcium gluconate topical gel, or subcutaneous or intraarterial injection. Nebulized calcium gluconate has been used for treatment of pulmonary injury. Specific procedures are required.
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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Do not use a water jet as this can spread the fire and may cause the splattering of corrosive liquid.
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5.2. Specific hazards arising from the chemical

Fire hazard	: Contact with metals can release hydrogen gas. Decomposition products may include carbon oxides.
Hazardous decomposition products in case of fire	: Corrosive and/or toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. In case of fire, do not breathe fumes. Move containers from the fire area if you can do so without risk. Prevent firefighting water from entering the environment.
Protection during firefighting	: Wear a self-contained breathing apparatus. Do not attempt to take action without suitable protective equipment.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment	: For spills or leaks, contact a supervisor and/or emergency responder. Avoid contact with spilled material and keep unnecessary personnel away.
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For emergency responders

Protective equipment	: See Section 8 for recommended personal protective equipment. Ventilate the area and restrict access to the spill or leak zone. Have emergency procedures in place for treating exposures or incidents. Only trained and authorized personnel equipped with proper protective equipment should perform cleanup.
Environmental precautions	: Avoid release onto the ground, into storm sewers, or bodies of water.

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6.2. Methods and materials for containment and cleaning up

Methods for cleaning up : Stop leak if safe to do so. Contain spillage, soak up with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite) and collect all waste in suitable, labeled, and closed containers. Dispose according to local legislation (See Section 13).

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety practices. Use only with adequate ventilation. Avoid contact with skin, eyes, and clothing. Use appropriate personal protection equipment (PPE). Wash thoroughly after handling.

7.2. Conditions for safe storage, including incompatibilities

Storage conditions : Store upright in a tightly closed, suitably labeled container. Store in a dry, cool, well-ventilated area with appropriate designated containment measures. Keep out of reach of children. Have readily available spill kits with appropriate absorbent materials. Protect from sunlight. Store in original labeled containers.

Incompatible products : Keep away from strong acids, strong bases, flammables/combustibles, oxidizers, and reactive metals (aluminum, zinc, magnesium, iron filings).

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Hydrofluoric acid (7664-39-3)

USA - ACGIH® - Threshold Limit Values

Local name	Hydrogen fluoride, as F
ACGIH® TLV® TWA	0.5 ppm
ACGIH® TLV® C	2 ppm
Remark (ACGIH®)	TLV® Basis: Pulmonary inflammation; Lung dam. Notations: Skin; BEI
Regulatory reference	ACGIH 2025

USA - OSHA - Occupational Exposure Limits

Local name	Hydrogen fluoride (as F)
OSHA PEL TWA	3 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-2

USA - NIOSH - Occupational Exposure Limits

Local name	Hydrogen fluoride (as F)
NIOSH REL 10h TWA	3 ppm
NIOSH REL (Ceiling)	6 ppm [15-min]
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-2 (NIOSH Pocket Guide to Chemical Hazards (NPG))

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8.2. Appropriate engineering controls

Appropriate engineering controls : Maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable guidelines, use only with adequate ventilation. Eye wash facilities and emergency showers must be available when handling this product.

8.3. Individual protection measures, such as personal protective equipment

Materials for protective clothing:

Wear suitable protective clothing. Long sleeved protective clothing.

Hand protection:

Chemical resistant PVC gloves

Eye protection:

Safety glasses with face shield

Respiratory protection:

In case of inadequate ventilation wear respiratory protection.

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Color	: Colorless
Odor	: Pungent
Odor threshold	: No data available
pH	: 1 – 2
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: Product does not sustain combustion.
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 10.056 lb/gal
Solubility	: No data available
Log Pow	: No data available
Autoignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Explosion limits	: No data available
Particle characteristics	: No data available

Hexafluorosilicic acid

Particle characteristics	No data available
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Hydrofluoric acid

Particle characteristics	No data available
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9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

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SECTION 10 Stability and reactivity

10.1. Reactivity

Corrosive product. Reacts with materials of opposite pH; may release heat or hydrogen gas. Contact with metals (e.g. aluminum, zinc, tin) may release hydrogen gas.

10.2. Chemical stability

Stable under recommended storage and handling conditions. Avoid contamination or exposure to extreme temperatures.

10.3. Possibility of hazardous reactions

Mixing with incompatible materials (acids/bases or oxidizers) may cause exothermic reactions or gas release.

10.4. Conditions to avoid

Avoid contact with incompatible materials, heat, and direct sunlight. Avoid mixing with other cleaning products.

10.5. Incompatible materials

Incompatible with strong acids/bases, oxidizing agents, metals (aluminum, zinc, tin), organic materials, hypochlorites, and ammonia.

10.6. Hazardous decomposition products

Thermal decomposition may release corrosive and/or toxic fumes. Contact with metals can release hydrogen gas.

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Harmful in contact with skin.
Acute toxicity (inhalation) : Harmful if inhaled.

Hexafluorosilicic acid (16961-83-4)

LD50 oral rat	430 mg/kg
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Hydrofluoric acid (7664-39-3)

LD50 dermal rabbit	≤ 50 mg/kg Source: ECHA
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Skin corrosion/irritation : Causes severe skin burns.
pH: 1 – 2

Serious eye damage/irritation : Causes serious eye damage.
pH: 1 – 2

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Hexafluorosilicic acid (16961-83-4)

IARC group	3 - Not classifiable
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Reproductive toxicity : Not classified
STOT-single exposure : Not classified

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Hydrofluoric acid (7664-39-3)	
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
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Viscosity, kinematic	No data available
Hexafluorosilicic acid (16961-83-4)	
Viscosity, kinematic	7.534 mm ² /s
Hydrofluoric acid (7664-39-3)	
Viscosity, kinematic	No data available
Symptoms/injuries after inhalation	: Causes severe burns to the respiratory system. Serious effects may be delayed following exposure.
Symptoms/injuries after skin contact	: Burning pain and severe corrosive skin damage. Serious effects may be delayed following exposure.
Symptoms/injuries after eye contact	: Liquid and vapor corrosive to eyes; will cause permanent damage if not rinsed promptly. Serious effects may be delayed following exposure.
Symptoms/injuries after ingestion	: Corrosive to mouth, throat & stomach; damage to digestive tract may be severe & life-threatening. May cause acute or chronic fluorosis. Serious effects may be delayed following exposure.

SECTION 12 Ecological information

12.1. Ecotoxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Hexafluorosilicic acid (16961-83-4)	
LC50 - Fish [1]	50 mg/l Source: EHCA
EC50 - Crustacea [1]	26 – 48 mg/l Source: ECHA
LC50 - Fish [2]	160 mg/l Test organisms (species): Menidia beryllina
NOEC chronic fish	66.6 mg/l Test organisms (species): Pimephales promelas Duration: '32 d'
Hydrofluoric acid (7664-39-3)	
LC50 - Fish [1]	51 mg/l Test organisms (species): other:
LC50 - Fish [2]	165 mg/l Test organisms (species): other:
NOEC (chronic)	14.1 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

12.2. Persistence and degradability

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Persistence and degradability	Not rapidly degradable
Hexafluorosilicic acid (16961-83-4)	
Persistence and degradability	Not rapidly degradable

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Hydrofluoric acid (7664-39-3)

Persistence and degradability	Not rapidly degradable
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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13 Disposal considerations

Regional legislation (waste)	: Avoid unauthorized disposal. Do not dump into any body of water. Comply with federal, state/provincial and local laws/regulations. Do not reuse empty containers.
Waste treatment methods	: Do not allow the product to contaminate any body of water. Refer to Section 8 for personal protection equipment.

SECTION 14 Transport information

In accordance with DOT

DOT

14.1. UN number

UN1778

14.2. Proper Shipping Name

Fluorosilicic acid

Transport document description

UN1778 Fluorosilicic acid, 8, II

14.3. Transport hazard class(es)

8



14.4. Packing group

II

14.5. Environmental hazards

Dangerous for the environment: No

No supplementary information available

14.6. Transport in bulk

Not applicable

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14.7. Special precautions for user

DOT

UN-No. (DOT) : UN1778
DOT Packaging Exceptions (49 CFR 173.xxx) : 154
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242

SECTION 15 Regulatory information

15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Hydrofluoric acid	CAS-No. 7664-39-3	0.1 - 1%
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Hydrofluoric acid (7664-39-3)

Listed on EPA Hazardous Air Pollutant (HAPS)
Listed on EPA HAPs Chronic Dose Response Assessment List - Carcinogens
Listed on EPA HAPs Acute Dose Response Assessment List – Exposure limits

CERCLA RQ	100 lb
RQ (Reportable quantity, section 304 of EPA's List of Lists)	100 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	100 lb

15.2. International regulations

No additional information available

15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Hexafluorosilicic acid(16961-83-4)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List
Hydrofluoric acid(7664-39-3)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16 Other information

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Revision date : 8/27/2026
Issue date : 4/24/2025

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Full text of hazard classes and H-statements	
H290	May be corrosive to metals
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H332	Harmful if inhaled

Safety Data Sheet (SDS), USA ML

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.