

# SAFETY DATA SHEET

Issuing Date 07-Aug-2013

Revision Date 07-Aug-2013

Revision Number 0

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

### GHS product identifier

Product Name CYCLE 5

### Other means of identification

Product Code(s) CYCLE 5

UN-Number UN1778

Synonyms CYCLE 5

### Recommended use of the chemical and restrictions on use

Recommended Use Institutional laundry detergent

Uses advised against No information available

### Supplier's details

#### **Supplier Address**

Uni-Kem Chemicals, Inc.  
802 Wm. Leigh Drive  
Tullytown, PA  
19007  
TEL: 800-752-1200

### Emergency telephone number

Emergency Telephone Number CHEM-TEL, INC.  
24 Hour Emergency Contact 1-800-255-3924

## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

Acute Oral Toxicity	Category 4
Skin Corrosion/Irritation	Category 1 Subcategory 1B
Serious Eye Damage/Eye Irritation	Category 1

### GHS Label elements, including precautionary statements

#### Emergency Overview

Signal Word **Danger**

Hazard Statements

- Harmful if swallowed
- Causes severe skin burns and eye damage

**Appearance** Clear, Green**Physical State** Liquid.**Odor** No information available**Precautionary Statements****Prevention**

- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Do not breathe dust/fume/gas/mist/vapors/spray
- Wear protective gloves/protective clothing/eye protection/face protection.

**General Advice**

- Immediately call a POISON CENTER or doctor/physician.

**Eyes**

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- Immediately call a POISON CENTER or doctor/physician.

**Skin**

- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
- Wash contaminated clothing before reuse.

**Inhalation**

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

**Ingestion**

- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- Rinse mouth
- Do NOT induce vomiting.

**Storage**

- Store locked up.

**Disposal**

- Dispose of contents/container to an approved waste disposal plant.

**Hazard Not Otherwise Classified (HNOC)**

Not applicable

**Other information**

No information available.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Synonyms**

CYCLE 5

Chemical Name	CAS-No	Weight %	Trade secret
Fluorosilicic acid	16961-83-4	15-30	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

#### 4. FIRST AID MEASURES

##### Description of necessary first-aid measures

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. Immediate medical attention is required.
<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.
<b>Ingestion</b>	Drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Immediate medical attention is required.

##### Most important symptoms/effects, acute and delayed

**Most Important Symptoms/Effects** No information available.

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

**Notes to Physician** Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

##### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** None

##### Specific Hazards Arising from the Chemical

No information available

##### Explosion Data

<b>Sensitivity to Mechanical Impact</b>	None.
<b>Sensitivity to Static Discharge</b>	None

##### Protective Equipment and Precautions for Firefighters

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

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal precautions, protective equipment and emergency procedures

**Personal Precautions** Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Stop leak if you can do it without risk. If spilled, take caution, as material can cause surfaces to become very slippery.

##### Environmental Precautions

**Environmental Precautions** Dispose of contents/container to an approved waste disposal plant.

##### Methods and materials for containment and cleaning up

**Methods for Containment** Stop leak if you can do it without risk

**Methods for Cleaning Up** Contain spill, dilute with water and neutralize as required. Wash away small spills with plenty of water.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Handling** Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Use only in area provided with appropriate exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not eat, drink or smoke when using this product. Do not take internally. Wash thoroughly after handling.

### Conditions for safe storage, including any incompatibilities

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Store at room temperature. Keep from freezing. Keep container closed when not in use. Keep out of the reach of children.

**Incompatible Products** Ferrous metals. Chlorine-based bleaching agents. Alkaline. Do not mix with anything but water

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Fluorosilicic acid 16961-83-4	TWA: 2.5 mg/m <sup>3</sup> F	TWA: 2.5 mg/m <sup>3</sup> F TWA: 2.5 mg/m <sup>3</sup> dust (vacated) TWA: 2.5 mg/m <sup>3</sup>	TWA: 2.5 mg/m <sup>3</sup> F

### Appropriate engineering controls

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems

### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Chemical splash goggles.  
**Skin and Body Protection** Rubber gloves. Latex gloves  
**Respiratory Protection** Particle filtering face piece

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	<b>Appearance</b>	Clear Green
<b>Odor</b>	No information available	<b>Odor Threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
pH	2.0	(4 % solution)
Melting Point/Range	No data available	None known
Boiling Point/Boiling Range	> 100 °C / > 212 °F	None known
Flash Point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
upper flammability limit	No data available	

<b>lower flammability limit</b>	No data available	
<b>Vapor Pressure</b>	No data available	None known
<b>Vapor Density</b>	No data available	None known
<b>Relative Density</b>	No data available	None known
<b>Specific Gravity</b>	1.049	None known
<b>Water Solubility</b>	100%	None known
<b>Solubility in other solvents</b>	No data available	None known
<b>Partition coefficient: n-octanol/water</b>	No data available	None known
<b>Autoignition Temperature</b>	No data available	None known
<b>Decomposition Temperature</b>	No data available	None known
<b>Viscosity</b>	5 cps	None known

**Flammable Properties** Not flammable

**Explosive Properties** No data available

**Oxidizing Properties** No data available

#### Other information

**VOC Content (%)** No data available

## 10. STABILITY AND REACTIVITY

#### Reactivity

No data available.

#### Chemical stability

Stable under recommended storage conditions.

#### Possibility of hazardous reactions

None under normal processing.

#### Conditions to avoid

Incompatible products.

#### Incompatible materials

Ferrous metals. Chlorine-based bleaching agents. Alkaline. Do not mix with anything but water

#### Hazardous decomposition products

Hydrofluoric acid.

## 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

#### **Product Information**

<b>Inhalation</b>	Avoid breathing vapors or mists. Vapors may irritate throat and respiratory system.
<b>Eye Contact</b>	Causes serious eye damage.
<b>Skin Contact</b>	Causes severe skin burns.
<b>Ingestion</b>	Harmful if swallowed.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	90 mL/kg ( Rat )	-	-

Fluorosilicic acid	= 125 mg/kg ( Rat )	-	= 1.11 mg/L ( Rat ) 1 h
			-

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** No information available.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Sensitization** No information available.  
**Mutagenic Effects** No information available.  
**Carcinogenicity** Contains no ingredient listed as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Fluorosilicic acid		Group 3		

**Reproductive Toxicity** No information available.  
**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Aspiration Hazard** No information available.

**Numerical measures of toxicity - Product**

*The following values are calculated based on chapter 3.1 of the GHS document:*

**LD50 Oral** 462 mg/kg; Acute toxicity estimate  
**LD50 Dermal** 24299 mg/kg; Acute toxicity estimate

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Fluorosilicic acid 16961-83-4		LC50 96 h: = 65 mg/L static (Poecilia reticulata) LC50 96 h: = 28.7 mg/L static (Pimephales promelas)		

**Persistence and Degradability** No information available.

**Bioaccumulation** No information available.

Chemical Name	Log Pow

**Other Adverse Effects**

No information available.

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Methods** Dispose of in accordance with federal, state, and local regulations

**Contaminated Packaging** Do not re-use empty containers.

Chemical Name	California Hazardous Waste
Fluorosilicic acid	Toxic Corrosive

## 14. TRANSPORT INFORMATION

**DOT**

**UN-Number** UN1778  
**Proper shipping name** Fluorosilicic acid

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<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>Description</b>	UN1778, Fluorosilicic acid, 8, II
<b>Emergency Response Guide Number</b>	154

**TDG**

<b>UN-Number</b>	UN1778
<b>Proper Shipping Name</b>	Fluorosilicic acid
<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>Description</b>	UN1778, Fluorosilicic acid, 8, II

<b>UN-Number</b>	UN1778
<b>Proper Shipping Name</b>	Fluorosilicic acid
<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>Description</b>	UN1778, Fluorosilicic acid, 8, II

**ICAO**

<b>UN-Number</b>	UN1778
<b>Proper shipping name</b>	Fluorosilicic acid
<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>Description</b>	UN1778, Fluorosilicic acid, 8, II

**IATA**

<b>UN-Number</b>	UN1778
<b>Proper Shipping Name</b>	Fluorosilicic acid
<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>ERG Code</b>	8L
<b>Description</b>	UN1778, Fluorosilicic acid, 8, II

**IMDG/IMO**

<b>UN-Number</b>	UN1778
<b>Proper Shipping Name</b>	Fluorosilicic acid
<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>EmS No.</b>	F-A, S-B
<b>Description</b>	UN1778, Fluorosilicic acid, 8, II

<b>UN-Number</b>	UN1778
<b>Proper Shipping Name</b>	Fluorosilicic acid
<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>Classification Code</b>	C1
<b>Description</b>	UN1778, Fluorosilicic acid, 8, II

**ADR**

<b>UN-Number</b>	UN1778
<b>Proper Shipping Name</b>	Fluorosilicic acid
<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>Classification Code</b>	C1
<b>Tunnel Restriction Code</b>	(E)
<b>Description</b>	UN1778, Fluorosilicic acid, 8, II, (E)
<b>ADR/RID-Labels</b>	8

<b>Proper Shipping Name</b>	Fluorosilicic acid
<b>Hazard Class</b>	8
<b>Packing Group</b>	II
<b>Classification Code</b>	C1
<b>Description</b>	UN1778, Fluorosilicic acid, 8, II
<b>Limited Quantity</b>	1 L

**15. REGULATORY INFORMATION**

**International Inventories**

<b>TSCA</b>	Complies
<b>DSL</b>	Complies
<b>EINECS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

**Legend**

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- AICS** - Australian Inventory of Chemical Substances

**U.S. Federal Regulations**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**U.S. State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

"X" designates that the ingredients are listed on the state right to know list.

<b>Chemical Name</b>	<b>New Jersey</b>	<b>Massachusetts</b>	<b>Pennsylvania</b>	<b>Illinois</b>	<b>Rhode Island</b>
Fluorosilicic acid	X	X	X		X



**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	Health Hazard 3	Flammability 0	Instability 0	Physical and Chemical Hazards -
<b><u>HMIS</u></b>	Health Hazard 3	Flammability 0	Physical Hazard 0	Personal Protection X

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**General Disclaimer**

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of Safety Data Sheet**