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Version 1

## 1. IDENTIFICATION

**Product Identifier****Product Name** SmartWash Luminous**Other means of identification****SDS #** WS-025**UN/ID No** UN1790**Recommended use of the chemical and restrictions on use****Recommended Use** Cleaning agent.**Details of the supplier of the safety data sheet****Supplier Address**Whiting Systems, Inc.  
9000 Highway 5 North  
Alexander, AR 72002**Emergency telephone number****Company Phone Number** 1-800-542-9031  
**Emergency Telephone** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Classification**

Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 2
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1

**Signal word****Danger****Hazard statements**Toxic if swallowed  
Fatal in contact with skin  
Harmful if inhaled  
Causes severe skin burns and eye damage

**Appearance** Colorless liquid**Physical state** Liquid**Odor** Acrid Acid odor**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 get in eyes, on skin, or on clothing  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Use only outdoors or in a well-ventilated area  
 Do not breathe dust/fume/gas/mist/vapors/spray

**Precautionary Statements - Response**

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  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Immediately call a POISON CENTER or doctor/physician  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Immediately call a POISON CENTER or doctor/physician  
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
 Rinse mouth  
 Do NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not Applicable

**Other Information**

Not Applicable

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%	Trade Secret
Hydrofluoric acid	7664-39-3	2.5-5	*
Phosphoric acid	7664-38-2	1.5-3.5	*

### 4. FIRST AID MEASURES

**First aid measures**

**General advice** When seeking medical attention, emphasize exposure to hydrofluoric acid.

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<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician or poison control center immediately.
<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Call a physician immediately. Irrigate open eyelids with 500 to 1,000 cc's of 1% Calcium Gluconate in saline solution.
<b>Ingestion</b>	Rinse mouth. Do NOT induce vomiting. Drink high amounts of calcium based antacid in water followed by milk or milk of magnesia. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.
<b>Skin Contact</b>	Wash off immediately with plenty of water. Take off contaminated clothing. Wash contaminated clothing before reuse. Immediate medical attention is required. Apply 2.5% Calcium Gluconate ointment to contacted area.

**Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	Vapor causes irritation to nasal and respiratory passages. Irritation and corrosive burns to mouth, throat, and stomach. Causes painful stinging or burning of eyes and lids, watering of eyes. Prolonged contact may even cause severe skin irritation or mild burn. May cause severe burns to skin, eyes and other body tissue.
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**Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	Treat symptomatically. Inhaling HF vapors can seriously damage the lungs. Delayed reactions up to and including fatal pulmonary edema may not be apparent for hours after the initial exposure. In 20%-50% HF concentrations, burns can be delayed 1 to 8 hours. Concentrations of less than 20% HF may cause delayed painful erythema up to 24 hours after contact. Latent skin burns and necrosis with slow healing can occur even at concentrations of 2% HF.
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## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

Carbon dioxide (CO<sub>2</sub>). Water spray (fog). Dry chemical. Chemical foam.

**Unsuitable Extinguishing Media** Do not use solid streams of water, except to cool closed containers.

**Specific hazards arising from the chemical**

Keep containers cool with water spray to prevent container rupture due to steam buildup. Contents are corrosive and all personal contact must be avoided. Contact with B:C extinguisher powder may produce large amounts of carbon dioxide. Contact with metals may evolve flammable hydrogen gas.

**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** Use personal protective equipment as required.

**Environmental precautions** Do not allow into any sewer, on the ground or into any body of water. For spills in excess of allowable limits (RQ) notify the National Response Center (800) 424-8802; refer to SARA Title III, Section 313 40 CFR 372, and CERCLA 40 CFR 302 for detailed instructions concerning reporting requirements.

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**Methods and material for containment and cleaning up**

**Methods for containment** Confine and absorb into approved absorbent.

**Methods for cleaning up** Place in appropriate containers for disposal.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Use personal protection recommended in Section 8. Use only in well-ventilated areas. Protect container from physical damage.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep locked up and out of reach of children. Protect from extreme temperatures.

**Packaging materials** This product will attack glass, concrete, and certain metals.

**Incompatible materials** Strong oxidizing agents. Strong alkalis. Metals. Cyanides. sulfides. Glass. Ceramics.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrofluoric acid 7664-39-3	TWA: 0.5 ppm F TWA: 2.5 mg/m <sup>3</sup> F S* Ceiling: 2 ppm F	TWA: 3 ppm F TWA: 2.5 mg/m <sup>3</sup> F (vacated) TWA: 3 ppm F (vacated) TWA: 2.5 mg/m <sup>3</sup> (vacated) STEL: 6 ppm F	IDLH: 30 ppm Ceiling: 6 ppm 15 min Ceiling: 5 mg/m <sup>3</sup> 15 min TWA: 3 ppm TWA: 2.5 mg/m <sup>3</sup>
Phosphoric acid 7664-38-2	STEL: 3 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> (vacated) TWA: 1 mg/m <sup>3</sup> (vacated) STEL: 3 mg/m <sup>3</sup>	IDLH: 1000 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering Controls** Apply technical measures to comply with the occupational exposure limits. Provide sufficient mechanical ventilation to maintain exposure below TLV(s). Eyewash stations. Showers.

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

**Eye/face protection** Wear approved safety goggles. Wear safety glasses with side shields (or goggles).

**Skin and body protection** Saranex, Barricade, Chemrel, Responder, or Butyl rubber gloves required. Do not use nitrile rubber, polyvinyl alcohol, or polyvinyl chloride. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Respiratory protection** None needed under normal use conditions with adequate ventilation. If the occupational exposure limits are exceeded, a NIOSH approved respirator with acid gas cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

**General Hygiene Considerations** 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>Odor</b>	Acrid Acid odor
<b>Appearance</b>	Blue liquid	<b>Odor threshold</b>	Not determined
<b>Color</b>	Blue		
<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>	
<b>pH</b>	<1		
<b>Melting point/freezing point</b>	Not determined		
<b>Boiling point/boiling range</b>	100 °C / 212 °F		
<b>Flash point</b>	Non-flammable		
<b>Evaporation rate</b>	<1	(water = 1)	
<b>Flammability (solid, gas)</b>	n/a-liquid		
<b>Flammability Limits in Air</b>			
<b>Upper flammability limits</b>	Not applicable		
<b>Lower flammability limit</b>	Not applicable		
<b>Vapor pressure</b>	17 mm Hg	@ 20 °C	
<b>Vapor density</b>	>1	(Air=1)	
<b>Specific Gravity</b>	1.026		
<b>Water solubility</b>	Completely soluble		
<b>Solubility in other solvents</b>	Not determined		
<b>Partition coefficient</b>	Not determined		
<b>Autoignition temperature</b>	Not determined		
<b>Decomposition temperature</b>	Not determined		
<b>Kinematic viscosity</b>	Not determined		
<b>Dynamic viscosity</b>	Not determined		
<b>Explosive properties</b>	Not determined		
<b>Oxidizing properties</b>	Not determined		

### Other Information

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

#### **Hazardous polymerization**

Hazardous polymerization does not occur. Non-hazardous endothermic polymerization may occur in both the liquid and gas phases.

### Conditions to avoid

Extreme temperatures.

### Incompatible materials

Strong oxidizing agents. Strong alkalis. Metals. Cyanides. sulfides. Glass. Ceramics.

### Hazardous Decomposition Products

Decomposition will not occur if handled and stored properly. In case of fire, oxides of carbon, hydrocarbons, fumes or vapors, and smoke may be produced. Fluorine.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

<b>Inhalation</b>	Harmful if inhaled.
<b>Eye contact</b>	Causes severe eye damage.
<b>Skin Contact</b>	Fatal in contact with skin. Causes severe skin burns.
<b>Ingestion</b>	nsur

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrofluoric acid 7664-39-3	-	-	= 850 mg/m <sup>3</sup> ( Rat ) 1 h = 1276 ppm ( Rat ) 1 h
Phosphoric acid 7664-38-2	1530 mg/kg ( Rat )	2730 mg/kg ( Rabbit )	>850 mg/m <sup>3</sup> ( Rat ) 1 h

**Information on physical, chemical and toxicological effects**

**Symptoms** Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Carcinogenicity** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Numerical measures of toxicity- Product**

Not determined

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

<b>ATEmix (oral)</b>	125 mg/kg
<b>ATEmix (dermal)</b>	125 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	1.1 mg/l

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hydrofluoric acid 7664-39-3		660: 48 h Leuciscus idus mg/L LC50		270: 48 h Daphnia species mg/L EC50
Phosphoric acid 7664-38-2		3 - 3.5: 96 h Gambusia affinis mg/L LC50		4.6: 12 h Daphnia magna mg/L EC50

**Persistence and degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

Not determined.

Chemical Name	Partition coefficient
Hydrofluoric acid 7664-39-3	-1.4

**Other adverse effects** Not determined

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Hydrofluoric acid 7664-39-3	U134			U134

Chemical Name	California Hazardous Waste Status
Phosphoric acid 7664-38-2	Corrosive

**14. TRANSPORT INFORMATION**

**DOT**

**UN/ID No** UN1790  
**Proper shipping name** Corrosive liquids, Acid Solution, n.o.s. (hydrofluoric acid, phosphoric acid)  
**Hazard Class** 8  
**Subsidiary class** 6.1  
**Packing Group** II  
**Reportable Quantity (RQ)** hydrofluoric acid 100 lbs, phosphoric acid 5000 lbs

**IATA**

**UN/ID No** UN1790  
**Proper shipping name** Corrosive liquid, Acid Solution, n.o.s. (hydrofluoric acid, phosphoric acid)  
**Hazard Class** 8  
**Subsidiary hazard class** 6.1  
**Packing Group** II

**IMDG**

**UN/ID No** UN1790  
**Proper shipping name** Corrosive liquid, Acid Solution, n.o.s. (hydrofluoric acid, phosphoric acid)  
**Hazard Class** 8  
**Subsidiary hazard class** 6.1  
**Packing Group** II

## 15. REGULATORY INFORMATION

### International Inventories

#### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances **IECSC**

- China Inventory of Existing Chemical Substances **KECL** -

Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

### US Federal Regulations

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Hydrofluoric acid - 7664-39-3	7664-39-3	2.5-5	1.0

### SARA 311/312 Hazard Categories

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Hydrofluoric acid 7664-39-3	100 lb			X
Phosphoric acid 7664-38-2	5000 lb			X

  

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Hydrofluoric acid 7664-39-3	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ
Phosphoric acid 7664-38-2	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

### US State Regulations

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

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Hydrofluoric acid 7664-39-3	X	X	X
Phosphoric acid 7664-38-2	X	X	X

#### U.S. EPA Label Information

## 16. OTHER INFORMATION

#### NFPA

#### Health hazards

#### Flammability

#### Instability

#### Special Hazards

Not determined

Not determined

Not determined

Not determined

#### HMIS

#### Health hazards

#### Flammability

#### Physical hazards

#### Personal protection

3

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Not determined

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Revision Note

new format

#### Disclaimer

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End of Safety Data Sheet