



Issue Date: 17-Sep-2014

Revision Date: 18-Sep-2014

Version 1

1. IDENTIFICATION

Product Identifier

Product Name SmartWash Tornado F-5

Other means of identification

SDS # WS-059**UN/ID No** UN3266

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 (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Purple liquid**Physical State** Liquid**Odor** Characteristic Detergent

Classification

| | |
|-----------------------------------|---------------------------|
| Skin corrosion/irritation | Category 1 Sub-category C |
| Serious eye damage/eye irritation | Category 1 |

Signal Word

Danger

Hazard Statements

Causes severe skin burns and eye damage



Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Immediately call a poison center or doctor/physician

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

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: 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

Other Hazards

Harmful to aquatic life with long lasting effects

Unknown Acute Toxicity

1-5% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% |
|----------------------------------|------------|----------|
| Sodium metasilicate pentahydrate | 10213-79-3 | 1-5 |
| Sodium hydroxide | 1310-73-2 | 1-5 |
| Tetrasodium EDTA | 64-02-8 | 1-5 |
| Phosphorous acid | 10294-56-1 | 1-5 |
| Phosphoric Acid | 7664-38-2 | 1-5 |

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

| | |
|---------------------|--|
| Eye Contact | 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. |
| Skin Contact | Wash with soap and water. DO NOT attempt to neutralize with chemical agents. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation persists, call a physician. |
| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Wash mouth and nasal passages with water repeatedly. Call a physician immediately. |
| Ingestion | Rinse mouth. Do not induce vomiting. Drink plenty of water or milk immediately. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. |

Most important symptoms and effects

| | |
|-----------------|--|
| Symptoms | May cause irritation to the mucous membranes and upper respiratory tract. Prolonged contact may even cause severe skin irritation or mild burn. Exposed individuals may experience eye tearing, redness and discomfort. May cause gastrointestinal irritation, nausea, diarrhea, and vomiting. |
|-----------------|--|

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically. Existing conditions aggravated by exposure: skin disorders, skin allergies, respiratory disorders, eye disorders.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO2). Water. Water spray (fog). Dry chemical. Chemical foam.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Keep containers cool with water spray to prevent container rupture due to steam buildup. Floor will become slippery if material is released. Material is alkaline and will irritate the eyes if product is allowed to directly contact the eyes.

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 See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Wash small spills to sanitary sewer. Large spills-confine spill, soak up with approved absorbent, and shovel product into approved container for disposal. For spills in excess of allowable limits (RQ) notify the National Response Center (800) 424-8802; refer to 40 CFR 302 for detailed instructions concerning reporting requirements.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands, and any exposed skin thoroughly after handling. Use personal protection recommended in Section 8. 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.

Incompatible Materials Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|--|---|---|---|
| Sodium metasilicate pentahydrate 10213-79-3 | - | 15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction) | - |
| Sodium hydroxide 1310-73-2 | Ceiling: 2 mg/m ³ | TWA: 2 mg/m ³ (vacated) Ceiling: 2 mg/m ³ | IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³ |
| Phosphoric Acid 7664-38-2 | STEL: 3 mg/m ³ TWA: 1 mg/m ³ | TWA: 1 mg/m ³ (vacated) TWA: 1 mg/m ³ (vacated) STEL: 3 mg/m ³ | IDLH: 1000 mg/m ³ TWA: 1 mg/m ³ STEL: 3 mg/m ³ |

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.

Individual protection measures, such as personal protective equipment

- Eye/Face Protection** Wear approved safety goggles.
- Skin and Body Protection** Neoprene, butyl or nitrile rubber gloves with cuffs. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
- Respiratory Protection** None required while threshold limits are kept below maximum allowable concentrations; if TWA exceeds limits, NIOSH approved respirator must be worn. Respiratory protection must be provided in accordance with OSHA regulations (29 CFR1910.134) or European Standard EN 149, as applicable.

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

| | | | |
|------------------------------|--------------------|-------------------------|--------------------------|
| Physical State | Liquid | Odor | Characteristic Detergent |
| Appearance | Purple liquid | Odor Threshold | Not determined |
| Color | Purple | | |
| Property | Values | Remarks • Method | |
| pH | 12.5-13.0 | | |
| Melting Point/Freezing Point | Not determined | | |
| Boiling Point/Boiling Range | 100 °C / 212 °F | | |
| Flash Point | Non-flammable | | |
| Evaporation Rate | <1 | (Water = 1) | |
| Flammability (Solid, Gas) | n/a-liquid | | |
| Upper Flammability Limits | Not applicable | | |
| Lower Flammability Limit | Not applicable | | |
| Vapor Pressure | Not determined | | |
| Vapor Density | Not determined | | |
| Specific Gravity | Not determined | | |
| Water Solubility | Completely soluble | | |
| Solubility in other solvents | Not determined | | |
| Partition Coefficient | Not determined | | |
| Auto-ignition Temperature | Not determined | | |
| Decomposition Temperature | Not determined | | |
| Kinematic Viscosity | Not determined | | |
| Dynamic Viscosity | Not determined | | |
| Explosive Properties | Not determined | | |
| Oxidizing Properties | Not determined | | |

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.

Conditions to Avoid

Extreme temperatures.

Incompatible Materials

Strong oxidizing agents.

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.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact

Causes severe eye damage.

Skin Contact

Causes severe skin burns.

Inhalation

Avoid breathing vapors or mists.

Ingestion

Do not taste or swallow.

Component Information

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|--|--------------------|-----------------------|-----------------------------------|
| Sodium metasilicate pentahydrate 10213-79-3 | 847 mg/Kg (rat) | - | - |
| Sodium hydroxide 1310-73-2 | - | = 1350 mg/kg (Rabbit) | - |
| Tetrasodium EDTA 64-02-8 | = 10 g/kg (Rat) | - | - |
| Phosphoric Acid 7664-38-2 | = 1530 mg/kg (Rat) | = 2730 mg/kg (Rabbit) | > 850 mg/m ³ (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

Not determined

Unknown Acute Toxicity

1-5% of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

Component Information

| Chemical Name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|-------------------------------|--|--|----------------------------|-----------------------------------|
| Sodium hydroxide 1310-73-2 | | 45.4: 96 h Oncorhynchus mykiss mg/L LC50 static | | |
| Tetrasodium EDTA 64-02-8 | 1.01: 72 h Desmodesmus subspicatus mg/L EC50 | 41: 96 h Lepomis macrochirus mg/L LC50 static 59.8: 96 h Pimephales promelas mg/L LC50 static | | 610: 24 h Daphnia magna mg/L EC50 |

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined

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.

California Hazardous Waste Status

| Chemical Name | California Hazardous Waste Status |
|-------------------------------|-----------------------------------|
| Sodium hydroxide 1310-73-2 | Toxic Corrosive |
| Phosphoric Acid 7664-38-2 | Corrosive |

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No UN3266
Proper Shipping Name Corrosive liquid, basic, inorganic, n.o.s. (sodium hydroxide, sodium metasilicate)
Hazard Class 8
Packing Group III

IATA

UN/ID No UN3266
Proper Shipping Name Corrosive liquid, basic, inorganic, n.o.s. (sodium hydroxide, sodium metasilicate)
Hazard Class 8
Packing Group III

IMDG

UN/ID No UN3266
Proper Shipping Name Corrosive liquid, basic, inorganic, n.o.s. (sodium hydroxide, sodium metasilicate)
Hazard Class 8
Packing Group III

15. REGULATORY INFORMATION

International Inventories

Not determined

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*
- AICS - Australian Inventory of Chemical Substances*

US Federal Regulations

CERCLA

| Chemical Name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|-------------------------------|--------------------------|----------------|--|
| Sodium hydroxide 1310-73-2 | 1000 lb | | RQ 1000 lb final RQ RQ 454 kg final RQ |
| Phosphoric Acid 7664-38-2 | 5000 lb | | RQ 5000 lb final RQ RQ 2270 kg final RQ |

SARA 313

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

CWA (Clean Water Act)

| Component | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---------------------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Sodium hydroxide 1310-73-2 (1-5) | 1000 lb | | | X |
| Phosphoric Acid 7664-38-2 (1-5) | 5000 lb | | | X |

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|-------------------------------|------------|---------------|--------------|
| Sodium hydroxide 1310-73-2 | X | X | X |
| Phosphoric Acid 7664-38-2 | X | X | X |

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 |
| | 2 | 0 | 0 | Not determined |

Issue Date: 17-Sep-2014
 Revision Date: 18-Sep-2014
 Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet