



# Liquid Twirl (AFCO 5355)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 4/24/2018

Version: 2.0

## SECTION 1: IDENTIFICATION

### Product Identifier

**Product Form:** Mixture

**Product Name:** Liquid Twirl (AFCO 5355)

**Product Code:** AFCO5355

**Synonyms:** Liquid Twirl

### Intended Use of the Product

Alkaline liquid laundry detergent designed to remove oily and greasy soils. For professional use only.

### Name, Address, and Telephone of the Responsible Party

#### **Company**

Alex C. Fergusson, LLC.

800 Development Avenue

Chambersburg, PA 17201

T 800-345-1329

[www.afcocare.com](http://www.afcocare.com)

### Emergency Telephone Number

**Emergency number** : 1-800-424-9300 (CHEMTREC)

## SECTION 2: HAZARDS IDENTIFICATION

### Classification of the Substance or Mixture

#### **Classification (GHS-US)**

Skin Irrit. 2 H315

Eye Dam. 1 H318

### Label Elements

#### **GHS-US Labeling**

#### **Hazard Pictograms (GHS-US)**



#### **Signal Word (GHS-US)**

: Danger

#### **Hazard Statements (GHS-US)**

: H315 - Causes skin irritation  
H318 - Causes serious eye damage

#### **Precautionary Statements (GHS-US)**

: P264 - Wash hands, forearms, and exposed areas thoroughly after handling..  
P280 - Wear eye protection, face protection, protective clothing, protective gloves.  
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
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/physician.  
P321 - Specific treatment (see Section 4).  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.

### Other Hazards

**Other Hazards Not Contributing to the Classification:** Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. When heated to decomposition, emits toxic fumes. Contact with active metals may evolve flammable hydrogen gas.

**Unknown Acute Toxicity (GHS-US)** Not available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### Substances

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Name	Product identifier	% (w/w)	Classification (GHS-US)
Water	(CAS No) 7732-18-5	70 - 80	Not classified
Nonylphenol ethoxylates	(CAS No) 9016-45-9	10 - 20	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Aquatic Chronic 2, H411
Sodium xylene sulfonate	(CAS No) 1300-72-7	1 - 5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched	(CAS No) 127087-87-0	1 - 5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412
Tetrapotassium pyrophosphate	(CAS No) 7320-34-5	0.1 - 1	Eye Irrit. 2A, H319
Tetrasodium EDTA	(CAS No) 64-02-8	0.1 - 1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Dam. 1, H318 Aquatic Acute 2, H401
Tinopal CBS	(CAS No) 27344-41-8	< .1	Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Irrit. 2A, H319 Aquatic Acute 2, H401

Full text of H-phrases: see section 16

## SECTION 4: FIRST AID MEASURES

### Description of 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).

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

**Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Call a POISON CENTER or doctor/physician if you feel unwell.

**Eye Contact:** Rinse cautiously with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Seek medical attention.

### Most Important Symptoms and Effects Both Acute and Delayed

**General:** Causes severe eye damage. Causes skin irritation.

**Inhalation:** None under normal and intended conditions of use.

**Skin Contact:** Contact causes irritation.

**Eye Contact:** Causes serious eye damage.

**Ingestion:** Ingestion is likely to be harmful or have adverse effects.

**Chronic Symptoms:** None expected under normal conditions of use.

### Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

## SECTION 5: FIRE-FIGHTING MEASURES

### Extinguishing Media

**Suitable Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. A heavy water stream may spread burning liquid.

### Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not flammable.

**Explosion Hazard:** Product is not explosive, however, contact with metallic substances may release flammable hydrogen gas.

**Reactivity:** None known

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### Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Do not breathe fumes from fires or vapors from decomposition. Stop leak if safe to do so. Do not allow runoff from fire fighting to enter drains or water sources.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Carbon oxides (CO, CO<sub>2</sub>). Nitrogen oxides.

### Reference to Other Sections

Refer to section 9 for flammability properties.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Avoid all eyes and skin contact.

#### For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### For Emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel. Eliminate ignition sources. Ventilate area. Stop leak if safe to do so.

### Environmental Precautions

Prevent entry to sewers and public waters.

### Methods and Material for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods for Cleaning Up:** Clear up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container for disposal. Do not take up in combustible material such as: saw dust or cellulosic material. Dispose in a safe manner in accordance with local/national regulations. Notify authorities if liquid enters sewers or public waters.

### Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

## SECTION 7: HANDLING AND STORAGE

### Precautions for Safe Handling

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

### Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

**Incompatible Materials:** Strong oxidizers.

**Specific End Use(s)** Alkaline liquid laundry detergent designed to remove oily and greasy soils. For professional use only.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

No Occupational Exposure Limits (OELs) have been established for this product or its chemical components.

### Exposure Controls

**Appropriate Engineering Controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Alarm detectors should be used when toxic gases may be released. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

**Personal Protective Equipment:** Avoid all unnecessary exposure. Protective goggles. Gloves. Face shield.



**Materials for Protective Clothing:** Chemically resistant materials and fabrics.

**Hand Protection:** Wear chemically resistant protective gloves.

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**Eye Protection:** Chemical goggles or safety glasses. Face shield.

**Skin and Body Protection:** None required under normal conditions of use.

**Respiratory Protection:** None required under normal conditions of use.

**Consumer Exposure Controls:** Do not eat, drink, or smoke during use.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Clear, blue liquid
Odor	: Mild
Odor Threshold	: Not available
pH	: 11.5 - 12.5
Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: 100 °C (212 °F)
Flash Point	: Not flammable
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not flammable
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Specific Gravity	: 1.03
Solubility	: Complete in water
Partition coefficient: n-octanol/water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge.

## SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** Hazardous reactions will not occur under normal conditions of use.

**Chemical Stability:** Stable under normal conditions.

**Possibility of Hazardous Reactions:** Hazardous reactions will not occur under normal conditions.

**Conditions to Avoid:** Extremely high or low temperatures. Incompatible materials.

**Incompatible Materials:** Strong acids. Strong oxidizers.

**Hazardous Decomposition Products:** Carbon oxides (CO, CO<sub>2</sub>). Corrosive vapors. Ammonia. Sulphur oxides. Nitrogen oxides. Hydrogen gas.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects - Product

**Acute Toxicity:** Not classified.

**LD50 and LC50 Data:** Not available.

**Skin Corrosion/Irritation:** Causes skin irritation.

**pH:** 11.5 - 12.5

**Serious Eye Damage/Irritation:** Causes serious eye damage.

**pH:** 11.5 - 12.5

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified.

**Teratogenicity:** Not available.

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**Carcinogenicity:** Not classified.

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified.

**Reproductive Toxicity:** Not classified.

**Specific Target Organ Toxicity (Single Exposure):** Not classified.

**Aspiration Hazard:** Not classified.

**Symptoms/Injuries After Inhalation:** None under normal and intended conditions of use.

**Symptoms/Injuries After Skin Contact:** Contact causes irritation.

**Symptoms/Injuries After Eye Contact:** Causes serious eye damage.

**Symptoms/Injuries After Ingestion:** Ingestion is likely to be harmful or have adverse effects.

**Chronic Symptoms:** None expected under normal conditions of use.

### Information on Toxicological Effects - Ingredient(s)

#### LD50 and LC50 Data:

<b>Tetrapotassium pyrophosphate (7320-34-5)</b>	
LD50 Dermal Rabbit	> 2000 mg/kg
<b>Tetrasodium EDTA (64-02-8)</b>	
LD50 Oral Rat	1780 mg/kg
ATE US (dust, mist)	1.50 mg/l/4h
<b>Sodium xylene sulfonate (1300-72-7)</b>	
LD50 Oral Rat	1000 mg/kg
<b>Tinopal CBS (27344-41-8)</b>	
LD50 Oral Rat	> 2000 mg/kg
LD50 Dermal Rat	> 2000 mg/kg
LC50 Inhalation Rat	3.6 mg/l/4h
ATE US (vapors)	3.60 mg/l/4h
<b>Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched (127087-87-0)</b>	
LD50 Oral Rat	1310 mg/kg
ATE US (oral)	1,310.00 mg/kg body weight
<b>Nonylphenol ethoxylates (9016-45-9)</b>	
LD50 Oral Rat	2590 mg/kg
LD50 Dermal Rabbit	1780 µl/kg

## SECTION 12: ECOLOGICAL INFORMATION

**Toxicity** Harmful to aquatic life. Toxic to aquatic life with long lasting effects.

<b>Liquid Twirl (AFCO 5355)</b>	
LC50 Fish	26 mg/l (Exposure time: 48 h - Species: Fathead minnow)
EC50 Daphnia	58 mg/l (Exposure time: 48 h - Species: Daphnia magna)
<b>Tetrapotassium pyrophosphate (7320-34-5)</b>	
LC50 Fish 1	101 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	101 mg/l (Exposure time: 48 h - Species: water flea)
<b>Tetrasodium EDTA (64-02-8)</b>	
LC50 Fish 1	41 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
LC 50 Fish 2	59.8 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
ErC50 (algae)	2.77 mg/l (72hr species: Desmodesmus subspicatus)
<b>Tinopal CBS (27344-41-8)</b>	
LC50 Fish 1	76 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
EC50 Daphnia 1	1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Other Aquatic Organisms 2	10 (10.0 - 11.0) mg/l (Exposure time: 96 h - Species: Desmodesmus subspicatus)
NOEC (acute)	1.37 mg/kg (Exposure time: 14 Days - Species: Eisenia foetida [soil dry weight])

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### Persistence and Degradability

#### Liquid Twirl (AFCO 5355)

Persistence and Degradability : Not established.

### Bioaccumulative Potential

#### Liquid Twirl (AFCO 5355)

Bioaccumulative Potential : Not established.

#### Tetrasodium EDTA (64-02-8)

Log Pow : 5.01 (calculated)

#### Tinopal CBS (27344-41-8)

BCF fish 1 : < 1

**Mobility in Soil** : Not available

### Other Adverse Effects

**Other Information:** Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Sewage Disposal Recommendations:** This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

**Ecology – Waste Materials:** Hazardous waste due to toxicity.

## SECTION 14: TRANSPORT INFORMATION

### 14.1 In Accordance with DOT

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.( Nonylphenol ethoxylates)

Hazard Class : 9

Identification Number : UN3082

Label Codes : 9

Packing Group : III

Marine Pollutant : Marine pollutant

ERG Number : 171



### 14.2 In Accordance with IMDG

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.( Nonylphenol ethoxylates)

Hazard Class : 9

Identification Number : UN3082

Packing Group : III

Label Codes : 9

EmS-No. (Fire) : F-A

EmS-No. (Spillage) : S-F

Marine pollutant : Marine pollutant

MFAG Number : 154



### 14.3 In Accordance with IATA

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Nonylphenol ethoxylates)

Packing Group : III

Identification Number : UN3082

Hazard Class : 9

Label Codes : 9

ERG Code (IATA) : 9L



### 14.4 In Accordance with TDG

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Nonylphenol ethoxylates)

Packing Group : III

Hazard Class : 9

Identification Number : UN3082

Label Codes : 9



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Marine Pollutant (TDG) : Marine pollutant

### SECTION 15: REGULATORY INFORMATION

#### US Federal Regulations

<b>Liquid Twirl (AFCO 5355)</b>	
<b>SARA Section 311/312 Hazard Classes</b>	Immediate (acute) health hazard
<b>Tetrapotassium pyrophosphate (7320-34-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Water (7732-18-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Tetrasodium EDTA (64-02-8)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Sodium xylene sulfonate (1300-72-7)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Tinopal CBS (27344-41-8)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched (127087-87-0)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Nonylphenol ethoxylates (9016-45-9)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

#### US State Regulations

<b>Tetrapotassium pyrophosphate (7320-34-5)</b>	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
<b>Tetrasodium EDTA (64-02-8)</b>	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
<b>Sodium xylene sulfonate (1300-72-7)</b>	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
<b>Tinopal CBS (27344-41-8)</b>	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
<b>Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched (127087-87-0)</b>	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	
<b>Nonylphenol ethoxylates (9016-45-9)</b>	
U.S. - California - Safer Consumer Products - Initial List of Candidate Chemicals and Chemical Groups	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	

#### Canadian Regulations

<b>Tetrapotassium pyrophosphate (7320-34-5)</b>	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
<b>Water (7732-18-5)</b>	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
<b>Tetrasodium EDTA (64-02-8)</b>	
Listed on the Canadian DSL (Domestic Substances List) inventory.	

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### Sodium xylene sulfonate (1300-72-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

### Tinopal CBS (27344-41-8)

Listed on the Canadian DSL (Domestic Substances List) inventory.

### Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched (127087-87-0)

Listed on the Canadian DSL (Domestic Substances List) inventory.

### Nonylphenol ethoxylates (9016-45-9)

Listed on the Canadian DSL (Domestic Substances List) inventory.

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Revision date** : 5/19/20

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

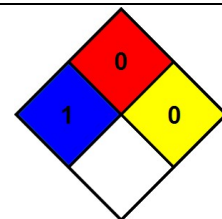
### GHS Full Text Phrases:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

**NFPA Health Hazard** : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

**NFPA Fire Hazard** : 0 - Materials that will not burn.

**NFPA Reactivity** : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



### HMIS III Rating

**Health** : 1 Slight Hazard - Irritation or minor reversible injury possible

**Flammability** : 0 Minimal Hazard

**Physical** : 0 Minimal Hazard

### Party Responsible for the Preparation of This Document

Alex C. Fergusson, LLC.

Tel. 800-345-1329

*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.*



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