



# CitraKleen I (AFCO 5224)

Safety Data Sheet

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

Revision Date: 4/11/2017

Version 1.2

## SECTION 1: IDENTIFICATION

### Product Identifier

**Product Form:** Mixture

**Product Name:** CitraKleen I (AFCO 5224)

**Product Code:** AFCO 5224

### Intended Use of the Product

**Use of the Substance/Mixture:** Mildly alkaline, citrus solvent based cleaner/degreaser. 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  
Skin Sens. 1 H317  
Eye Irrit. 2 H319  
Aquatic Acute 3 H402  
Aquatic Chronic 2 H411

### Label Elements

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

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



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

: Warning

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

: H315 - Causes skin irritation  
H317 - May cause allergic skin reaction  
H319 - Causes serious eye irritation  
H402 - Harmful to aquatic life  
H411 - Toxic to aquatic life with long lasting effects

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

: P261 - Avoid breathing fumes/mist/vapor/spray.  
P264 - Wash hands, forearms, and exposed areas thoroughly after handling.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P273 - Avoid release to the environment.  
P280 - Wear eye protection, protective clothing, protective gloves.  
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.  
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.  
P337+P313 - If eye irritation persists, get medical attention/advice.  
P362 - Take off contaminated clothing and wash before reuse.  
P391 - Collect spillage.

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P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

### Other Hazards

**Other Hazards Not Contributing to the Classification:** Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

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

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### Substances

Name	Product identifier	% (w/w)	Classification (GHS-US)
Water	(CAS No) 7732-18-5	40-50	Not classified
d-Limonene	(CAS No) 5989-27-5	20-30	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 1, H410
Monoethanolamine dodecylbenzenesulfonate	CAS No. 26836-07-7	10-15	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319
2-(2-butoxyethoxy)ethanol	(CAS No) 112-34-5	5-10	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox 5 (Dermal) , H313 Eye Irrit 2A, H319
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
Nonylphenol ethoxylates	(CAS No) 9016-45-9	1-5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Aquatic Chronic 2, H411
Poly(oxy-1,2-ethanediyl), .alpha.-(2-ethylhexyl)-.omega.-hydroxy-, phosphate, sodium salt	(CAS No) 111798-26-6	1-5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319

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:** Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

**Skin Contact:** Remove contaminated clothing. Drench affected area with water for several minutes. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

**Eye Contact:** 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.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

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

**General:** Causes skin irritation. Causes serious eye irritation.

**Inhalation:** May cause slight respiratory irritation.

**Skin Contact:** Causes skin irritation.

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

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

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

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

If you feel unwell, seek medical advice (show the label where possible).

## **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. Use of heavy stream of water may spread fire.

### **Special Hazards Arising From the Substance or Mixture**

**Fire Hazard:** Not flammable.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** None known.

### **Advice for Firefighters**

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

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

**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>). Sulfur oxides and 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 contact with skin, eyes, or clothing. Avoid breathing vapor, mist, or spray.

#### **For Non-Emergency Personnel**

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

**Emergency Procedures:** Evacuate unnecessary personnel.

#### **For Emergency Personnel**

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Ventilate area.

### **Environmental Precautions**

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or 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. Spills should be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

### **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 when leaving work.

### **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. Keep/Store away from extremely low and high temperatures and incompatible materials.

**Incompatible Materials:** Strong oxidizers.

**Special Rules on Packaging:** None known.

### **Specific End Use(s)**

Mildly alkaline, citrus solvent based cleaner/degreaser. For professional use only.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Control Parameters**

#### **2-(2-butoxyethoxy)ethanol (112-34-5)**

USA ACGIH

ACGIH TWA (ppm)

10 ppm

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d-Limonene (5989-27-5)		
USA ACGIH (TLV)	TWA (ppm)	20 ppm

### Exposure Controls

**Appropriate Engineering Controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed. Ensure adequate ventilation, especially in confined areas. If user operations generate fumes, vapors, gas, or spray use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or regulatory limits.

**Personal Protective Equipment:** Protective goggles. Gloves.



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

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

**Eye Protection:** Chemical goggles.

**Skin and Body Protection:** None usually needed.

**Respiratory Protection:** A respirator is not needed under normal and intended conditions of product use. Whenever worker exposure may exceed established regulatory exposure limits, use a NIOSH-approved respirator.

**Environmental Exposure Controls:** Do not allow the product to be released into the environment.

**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 light amber
Odor	: Citrus
Odor Threshold	: Not available
pH(as is)	: 11.0
Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: 100°C (212°F)
Flash Point	: None
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
Relative Density	: Not available
Specific Gravity	: 0.98
Solubility	: Water: Complete
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.

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### SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** None known.

**Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

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

**Incompatible Materials:** Strong oxidizers.

**Hazardous Decomposition Products:** Carbon oxides (CO, CO<sub>2</sub>). Sulfur oxides and nitrogen oxides.

### 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

**Serious Eye Damage/Irritation:** Causes serious eye irritation. **pH:** 11

**Respiratory or Skin Sensitization:** May cause allergic skin reaction.

**Germ Cell Mutagenicity:** Not classified.

**Teratogenicity:** Not classified.

**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:** May cause slight respiratory irritation.

**Symptoms/Injuries After Skin Contact:** Causes skin irritation.

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

**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:**

Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched (127087-87-0)	
LD50 Oral Rat	1310 mg/kg
2-(2-butoxyethoxy)ethanol (112-34-5)	
LD50 Oral Rat	4500-9625 mg/kg
LD50 Dermal Rabbit	>2765 mg/kg (no mortality seen in test)
Nonylphenol ethoxylates (9016-45-9)	
LD50 Oral Rat	2590 mg/kg
LD50 Dermal Rabbit	1780 µl/kg
d-Limonene (5989-27-5)	
LD50 Oral Rat	4400 mg/kg
d-Limonene (5989-27-5)	
IARC Group	3

### SECTION 12: ECOLOGICAL INFORMATION

#### Toxicity

**Ecology - General:** This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

**Ecology - Water:** Toxic to aquatic life with long lasting effects.

2-(2-butoxyethoxy)ethanol (112-34-5)	
LC50 Fish 1	1300 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)
EC50 Daphnia 1	2850-3300mg/l (Exposure time: 24 h - Species: Daphnia magna)

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<b>d-Limonene (5989-27-5)</b>	
LC50 Fish 1	0.72 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	0.36 mg/l (Exposure time: 48 h - Species: Daphnia magna)

### **Persistence and Degradability**

<b>d-Limonene (5989-27-5)</b>	
Persistence and Degradability	71% - Readily biodegradable (OECD Test Guideline 301B)

### **Bioaccumulative Potential**

<b>d-Limonene (5989-27-5)</b>	
Log Pow	4.2

**Mobility in Soil** Not available.

### **Other Adverse Effects**

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

## **SECTION 13: DISPOSAL CONSIDERATIONS**

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

**Ecology – Waste Materials:** Avoid release to the environment.

## **SECTION 14: TRANSPORT INFORMATION**

**14.1 In Accordance with DOT** Not regulated for transport.

**14.2 In Accordance with IMDG** Not regulated for transport.

**14.3 In Accordance with IATA** Not regulated for transport.

**14.4 In Accordance with TDG** Not regulated for transport.

## **SECTION 15: REGULATORY INFORMATION**

### **US Federal Regulations**

<b>CitraKleen I (AFCO 5224)</b>	
<b>SARA Section 311/312 Hazard Classes</b>	Immediate (acute) health hazard
<b>Water (7732-18-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory.	
<b>Monoethanolamine dodecylbenzenesulfonate (26836-07-7)</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.	
<b>d-Limonene (5989-27-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>2-(2-butoxyethoxy)ethanol (112-34-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory.	
<b>Poly(oxy-1,2-ethanediyl), .alpha.-(2-ethylhexyl)-.omega.-hydroxy-, phosphate, sodium salt (111798-26-6)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory.	

### **US State Regulations**

<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.	

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U.S. - Texas - Effects Screening Levels - Short Term.

### **d-Limonene (5989-27-5)**

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

RTK - U.S. - Pennsylvania - RTK (Right to Know) List

### **Canadian Regulations**

#### **Water (7732-18-5)**

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.

#### **Monoethanolamine dodecylbenzenesulfonate (26836-07-7)**

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

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

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

#### **2-(2-butoxyethoxy)ethanol (112-34-5)**

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

#### **Poly(oxy-1,2-ethanediyl), .alpha.-(2-ethylhexyl)-.omega.-hydroxy-, phosphate, sodium salt (111798-26-6)**

Listed on the Canadian NDSL (Non-Domestic Substances List).

### **d-Limonene (5989-27-5)**

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

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

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

**Revision date** : 4/11/2017

**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 (Oral)	Acute toxicity (oral) Category 4
Acute Tox 5 (Dermal)	Acute toxicity (Dermal) Category 5
Aspiration Tox 1	Aspiration Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment – Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment – Acute Hazard Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Flam Liq 3	Flammable liquids Category 3
Flam Liq 4	Flammable liquids Category 4
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
Skin Sens 1B	Skn sensitization Category 1B
H226	Flammable liquid and vapor
H227	Combustible liquid
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H313	May be harmful in contact with skin
H315	Causes skin irritation
H317	May cause allergic skin reaction

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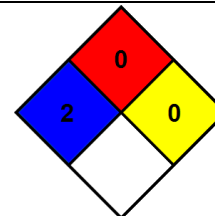
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H318	Causes serious eye damage
H319	Causes serious eye irritation
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

**NFPA Health Hazard** : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention 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** : 2 Moderate Hazard - Temporary or minor injury may occur.

**Flammability** : 0 Minimal Hazard.

**Physical** : 1 Slight Hazard.

### Party Responsible for the Preparation of This Document

Alex C. Fergusson, LLC.  
800 Development Avenue  
Chambersburg, PA 17201  
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.*

NA GHS SDS 2015 (US, Can, Mex)