CitraKleen I (AFCO 5224)

Safety Data Sheet

Revision Date: 10/26/2026 Version 2.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: CitraKleen I

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

AFCO
800 Development Avenue
Chambersburg, PA 17201
T: 800-345-1329
www.afcocare.com

Emergency Telephone Number

Emergency Number : 1-800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Skin Irrit. 2	H315
Skin Sens. 1	H317
Eye Irrit. 2	H319
Aquatic Acute 3	H402
Aquatic Chronic 2	H411

Label Elements

Hazard Pictograms :



Signal Word : Warning

Hazard Statements :
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 :
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.
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.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances: Not applicable, product is a mixture.

Mixture:

Name	Product identifier	% (w/w)
Water	(CAS No) 7732-18-5	40-50
d-Limonene	(CAS No) 5989-27-5	20-30
Monoethanolamine dodecylbenzenesulfonate	CAS No. 26836-07-7	10-15
2-(2-butoxyethoxy)ethanol	(CAS No) 112-34-5	5-10
Poly(oxy-1,2-ethanediyl), .alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched	(CAS No) 127087-87-0	1-5
Nonylphenol ethoxylates	(CAS No) 9016-45-9	1-5
Poly(oxy-1,2-ethanediyl), .alpha.-(2-ethylhexyl)-.omega.-hydroxy-, phosphate, sodium salt	(CAS No) 111798-26-6	1-5

The exact percentage (concentration) of the composition and/or ingredients has been withheld as a trade secret, in accordance with 29 CFR § 1910.1200(i).

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.

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_2). 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

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
Particle Characteristics	:	No data available.
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
Explosive Properties	:	Not expected to present an explosion hazard.
Oxidizing Properties	:	Not expected to present an oxidizing hazard.

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_2). 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
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)

d-Limonene (5989-27-5)	
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

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

Bioaccumulative Potential

d-Limonene (5989-27-5)	
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

Citrakleen I (AFCO 5224)	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard.

Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

Monoethanolamine dodecylbenzenesulfonate (26836-07-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

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

Listed on the United States TSCA (Toxic Substances Control Act) inventoy.

Nonylphenol ethoxylates (9016-45-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

d-Limonene (5989-27-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

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

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

US State Regulations

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

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

Nonylphenol ethoxylates (9016-45-9)

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.

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 Hazardous Products Regulations (HPR) and the SDS contains all of the information required by those regulations.

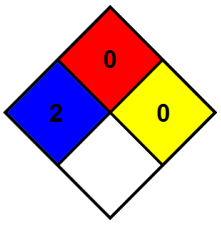
SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 10/26/2026

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 IV Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur.

Flammability : 0 - Minimal Hazard.

Physical : 1 - Slight Hazard.

Preparation by:

AFCO
800 Development Avenue
Chambersburg, PA 17201
T: 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.

North America SDS GHS Rev. 7 (U.S., Can., Mex.)