



AR-100 LF (AFCO 5490)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 11/08/2024

Version: 1.2

07/27/2015SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture
Product Name: AR 100 LF
Product Code: AFCO 5490
Synonyms: AR-100 LF, ACI-REP LF

Intended Use of the Product

Acid CIP cleaner for use on food processing equipment. For professional use only.

Name, Address, and Telephone of the Responsible Party

Company

AFCO
550 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

Classification (GHS-US)

Skin Corr. 1B H314
Eye Dam. 1 H318

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :



Signal Word (GHS-US) :

Danger.

Hazard Statements (GHS-US) :

H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage

Precautionary Statements (GHS-US) :

P260 - Do not breathe mist, spray, vapors.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P280 - Wear protective glove, protective clothing, eye protection, face protection.
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
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).
P363 - Wash contaminated clothing before reuse.
P405 - Store locked up.
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. When heated to decomposition, emits toxic fumes.

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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	70 - 90	Not classified.
Urea hydrochloride	(CAS No) 506-89-8	10 - 15	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335
Alcohols, C8-10, ethoxylated propoxylated	(CAS No) 68603-25-8	0.1 - 1	Acute Tox. 4 (Oral), H302 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. Immediately call a POISON CENTER or doctor/physician.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

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. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes severe skin burns and eye damage. Effects of exposure (ingestion or skin contact) to substance may be delayed.

Inhalation: Not classified.

Skin Contact: Contact may cause severe irritation progressing quickly to chemical burns.

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: Powder, alcohol-resistant foam, water spray, carbon dioxide (CO₂).

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, however, contact with metallic substances may release flammable hydrogen gas.

Reactivity: Thermal decomposition generates: Corrosive vapors, emits toxic fumes.

Advice for Firefighters

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

Firefighting Instructions: Do not allow run-off from fire fighting to enter drains or water sources. Do not breath fumes from fires or vapors from decomposition. Do not use a solid water stream as it may scatter and spread fire.

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

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Hydrogen gas. Nitrogen compounds.

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, spray).

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

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 an inert material, then place in suitable container. Contact competent authorities after a spill. Dispose of waste in a safe manner in accordance with local/national regulations.

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.

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 bases. Strong oxidizers. Hypochlorites. Alkaline substances.

Specific End Use(s) Acid CIP cleaner for use on food processing equipment. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

No Occupational Exposure Limits (OELs) have been established for this product or any of 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. Ensure all national/local regulations are observed. Ensure adequate ventilation, especially in confined area. 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: Avoid all unnecessary exposure. Protective goggles. Gloves. Face shield. Protective clothing.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

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

Skin and Body Protection: Wear suitable protective clothing.

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.

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 pink to red.
Odor	: Low.
Odor Threshold	: Not available.
pH	: <2
Relative Evaporation Rate (butylacetate=1)	: Not available.

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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	: 1.05
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: Thermal decomposition generates: Corrosive vapors. When heated to decomposition, emits toxic fumes.

Chemical Stability: Stable under normal conditions.

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

Conditions to Avoid: Extremely low temperatures. Incompatible materials.

Incompatible Materials: Strong acids. Strong oxidizers. Hypochlorites. Alkaline substances.

Hazardous Decomposition Products: Thermal decomposition generates: Carbon oxides (CO, CO₂). Nitrogen oxides (NO_x). Hydrogen gas. Corrosive vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects – Product

Acute Toxicity: Not classified.

LD50 and LC50 Data: Not available.

Skin Corrosion/Irritation: Causes severe skin burns. (pH: <2)

Serious Eye Damage/Irritation: Causes serious eye damage. (pH: <2)

Respiratory or Skin Sensitization: Not classified.

Germ Cell Mutagenicity: Not classified.

Teratogenicity: Not available.

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.

Symptoms/Injuries After Skin Contact: Contact may cause immediate severe irritation progressing quickly to chemical burns.

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:

Urea, monohydrochloride (506-89-8)	
LD50 Oral Rat	500 mg/kg

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SECTION 12: ECOLOGICAL INFORMATION

Toxicity Not classified.

Persistence and Degradability

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Persistence and Degradability	Not established.

Bioaccumulative Potential

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Mobility in Soil Not available.

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Sewage Disposal Recommendations: Do not dispose of waste into sewer.

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

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name : CORROSIVE LIQUIDS, N.O.S. (Urea hydrochloride)
Hazard Class : 8
Identification Number : UN1760
Label Codes : 8
Packing Group : II
ERG Number : 154



14.2 In Accordance with IMDG

Proper Shipping Name : CORROSIVE LIQUID, N.O.S. (Urea hydrochloride)
Hazard Class : 8
Identification Number : UN1760
Packing Group : II
Label Codes : 8
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B
MFAG Number : 154



14.3 In Accordance with IATA

Proper Shipping Name : CORROSIVE LIQUID, N.O.S. (Urea hydrochloride)
Packing Group : II
Identification Number : UN1760
Hazard Class : 8
Label Codes : 8
ERG Code (IATA) : 8L



14.4 In Accordance with TDG

Proper Shipping Name : CORROSIVE LIQUID, N.O.S. (Urea hydrochloride)
Packing Group : II
Hazard Class : 8
Identification Number : UN1760
Label Codes : 8



SECTION 15: REGULATORY INFORMATION

US Federal Regulations

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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard.

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Water (7732-18-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory.
Urea, monohydrochloride (506-89-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory.
Alcohols, C8-10, ethoxylated propoxylated (68603-25-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory.

US State Regulations

Alcohols, C8-10, ethoxylated propoxylated (68603-25-8)
U.S. - Texas - Effects Screening Levels - Long Term.
U.S. - Texas - Effects Screening Levels - Short Term.

Canadian Regulations

Water (7732-18-5)
Listed on the Canadian DSL (Domestic Substances List) inventory.
Urea, monohydrochloride (506-89-8)
Listed on the Canadian DSL (Domestic Substances List) inventory.
Alcohols, C8-10, ethoxylated propoxylated (68603-25-8)
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	: 11/08/2024
Other Information	: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

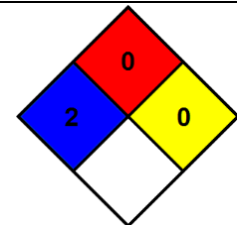
GHS Full Text Phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4.
Eye Dam. 1	Serious eye damage/eye irritation Category 1.
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A.
Skin Corr. 1A	Skin corrosion/irritation Category 1A.
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.
H335	May cause respiratory irritation.

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 : 0 - Minimal Hazard.

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Party Responsible for the Preparation of This Document

AFCO
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Chambersburg, PA 17201
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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 GHS SDS 2015 (U.S., Can., Mex.)