



AFCO 5197

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 07/11/2024

Version: 1.2

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: AFCO 5197

Product Code: AFCO 5197

Intended Use of the Product

Use of the Substance/Mixture: Heavy duty caustic cleaner designed for CIP cleaning of food processing equipment in dairies, cheese plants, breweries, and in other food processing plants. 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)

Met. Corr. 1 H290
Skin Corr. 1A H314
Eye Dam. 1 H318
Aquatic Acute 3 H402

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)

:



GHS05

Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H402 - Harmful to aquatic life

Precautionary Statements (GHS-US)

: P234 - Keep only in original container.
P260 - Do not breathe vapors, mist, spray.
P264 - Wash hands, forearms, and exposed areas thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
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.

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P390 - Absorb spillage to prevent material damage.

P405 - Store locked up.

P406 - Store in corrosive resistant container with a resistant inner liner.

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. **NEVER** pour water into this substance; when dissolving or diluting always add product slowly to water.

Unknown Acute Toxicity (GHS-US)

1.46 percent of the mixture consists of ingredient(s) of unknown acute toxicity.

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
Sodium hydroxide	(CAS No) 1310-73-2	20 - 30	Met. Corr. 1, H290 Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402
Sodium gluconate	(CAS No) 527-07-1	0.1-1.0	Not classified
1,2,4-Butanetricarboxylic acid, 2-phosphono-	(CAS No) 37971-36-1	0.1 – 1.0	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318

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 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. 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 severe skin burns and eye damage.

Inhalation: None under normal and intended conditions of use.

Skin Contact: Causes serious burns. Contact may cause immediate 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 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: Water may be ineffective. Do not use a heavy water stream. A heavy water stream may spread burning liquid.

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Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive.

Reactivity: May be corrosive to soft metals. Contact with soft metals may evolve flammable hydrogen gas.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

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, CO₂). Nitrogen oxides. Corrosive vapors.

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.

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: Cautiously neutralize spilled liquid. Clear up spills immediately and dispose of waste safely. 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

Additional Hazards When Processed: May be corrosive to soft metals.

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 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/Store away from, extremely low temperatures and incompatible materials. Keep container closed when not in use.

Incompatible Materials: Strong acids. Strong oxidizers.

Special Rules on Packaging: Store in original container.

Specific End Use(s)

Heavy duty caustic cleaner designed for CIP cleaning of food processing equipment in dairies, cheese plants, breweries, and in other food processing plants. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Sodium hydroxide (1310-73-2)		
Mexico	OEL Ceiling (mg/m ³)	2 mg/m ³
USA ACGIH	ACGIH Ceiling (mg/m ³)	2 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	2 mg/m ³
USA NIOSH	NIOSH REL (ceiling) (mg/m ³)	2 mg/m ³

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USA IDLH	US IDLH (mg/m ³)	10 mg/m ³
Ontario	OEL Ceiling (mg/m ³)	2 mg/m ³
Québec	PLAFOND (mg/m ³)	2 mg/m ³

Exposure Controls

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

Personal Protective Equipment: Protective goggles. Face shield. Corrosionproof clothing. Gloves.



Materials for Protective Clothing: Corrosion-proof clothing.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: None needed under normal and intended conditions of use.

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	: Slightly hazy, pale amber
Odor	: Low
Odor Threshold	: Not available
pH	: >13
Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: 98.9°C (210°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
Relative Density	: Not available
Specific Gravity	: 1.30
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: Contact with soft metals may evolve flammable hydrogen gas.

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 temperatures and incompatible materials.

Incompatible Materials: Strong acids. Strong oxidizers.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂). Nitrogen oxides. Sulfur oxides. Thermal decomposition generates 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 and eye damage. (pH: >13)

Serious Eye Damage/Irritation: Causes serious eye damage. (pH: > 13)

Respiratory or Skin Sensitization: Not classified.

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: None under normal and intended conditions of use.

Symptoms/Injuries After Skin Contact: Causes serious burns. 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:

1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)	
LD50 Oral Rat	>4000 mg/kg
LD50 Dermal Rat	>4000 mg/kg
LC50 Inhalation Rat	>1979 mg/m ³ (Exposure time: 4 h)
Sodium hydroxide (1310-73-2)	
LD50 Dermal Rabbit	1350 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

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

Ecology - Water: Harmful to aquatic life.

Sodium hydroxide (1310-73-2)	
LC50 Fish 1	45.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

Persistence and Degradability Not available.

Bioaccumulative Potential

1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)	
BCF fish 1	(no bioaccumulation expected)

Mobility in Soil Not available.

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Other Adverse Effects Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

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 LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide)
Hazard Class : 8
Identification Number : UN3266
Label Codes : 8
Packing Group : III
ERG Number : 154



14.2 In Accordance with IMDG

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide)
Hazard Class : 8
Identification Number : UN3266
Packing Group : III
Label Codes : 8
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B



14.3 In Accordance with IATA

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide)
Packing Group : III
Identification Number : UN3266
Hazard Class : 8
Label Codes : 8
ERG Code (IATA) : 8L



14.4 In Accordance with TDG

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Hydroxide)
Packing Group : III
Hazard Class : 8
Identification Number : UN3266
Label Codes : 8



SECTION 15: REGULATORY INFORMATION

US Federal Regulations

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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard. Reactive hazard.
1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory.	
Sodium hydroxide (1310-73-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory.	
Water (7732-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory.	
Sodium gluconate (527-07-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory.	

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US State Regulations

1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)

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

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

Sodium hydroxide (1310-73-2)

U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute

U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)

U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances

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

U.S. - New Jersey - Special Health Hazards Substances List

U.S. - New York - Occupational Exposure Limits - TWAs

U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

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

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

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

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

U.S. - Vermont - Permissible Exposure Limits - Ceilings

Sodium gluconate (527-07-1)

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

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

Canadian Regulations

1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)

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

Sodium hydroxide (1310-73-2)

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

Listed on the Canadian Ingredient Disclosure List

Water (7732-18-5)

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

Sodium gluconate (527-07-1)

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 : 07/11/2024

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 (Dermal)	Acute toxicity (dermal) Category 4
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Irrit. 2	Skin corrosion/irritation Category 2
H290	May be corrosive to metals
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage

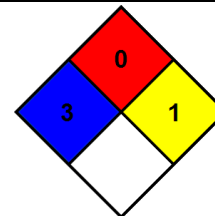
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H320	Causes eye irritation
H402	Harmful to aquatic life

- NFPA Health Hazard** : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
- NFPA Fire Hazard** : 0 - Materials that will not burn.
- NFPA Reactivity** : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



HMIS III Rating

- Health** : 3 Serious Hazard - Major injury likely unless prompt action is taken, and medical treatment is given.
- Flammability** : 0 - Minimal Hazard.
- Physical** : 0 - Minimal Hazard.

Party Responsible for the Preparation of This Document

AFCO
550 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 GHS SDS 2015 (U.S., Can., Mex.)