



Clearitas 401 (AFCO 4201)

Safety Data Sheet

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

Revision Date: 12/19/2017

Version: 2.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

Product Identifier

Product Form: Mixture

Product Name: Clearitas 401 (AFCO 4201)

Product Code: AFCO 4201

Intended Use of the Product

Use of the Substance/Mixture: Chlorine water treatment chemical.

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

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 Irrit. 2 H315

Eye Irrit. 2A H319

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)

:



GHS05



GHS07

Signal Word (GHS-US)

: Danger.

Hazard Statements (GHS-US)

: H290 - May be corrosive to metals.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

Precautionary Statements (GHS-US)

: P234 - Keep only in original container.

P260 - Do not breathe vapors, mist, spray.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P280 - Wear protective gloves, protective clothing, eye protection.

P302+P332 - IF ON SKIN (or hair): Wash with plenty of 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.

P332+P313 If skin irritation occurs: get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash before reuse.

P390 - Absorb spillage to prevent material damage.

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

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.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
Water	(CAS No) 7732-18-5	98-100	Not classified
Sodium hydroxide	(CAS No) 1310-73-2	0.01 - 1	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402
Sodium hypochlorite	(CAS No) 7681-52-9	0.01 - 1	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-phrases: see section 16.

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: For skin, remove contaminated clothing. Drench affected area with water for several minutes For eyes, flush eyes cautiously with water for 5 minutes.

Inhalation: Remove to fresh air.

Skin Contact: Remove contaminated clothing. Drench affected area with water for several minutes.

Eye Contact: Flush eyes cautiously with water for 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, obtain medical attention.

Ingestion: Rinse mouth and drink several glasses of water. Do NOT induce vomiting. Obtain medical attention.

Most Important Symptoms and Effects Both Acute and Delayed

General: May cause slight skin irritation. May cause slight eye irritation.

Inhalation: Inhalation of high-vapor concentrations or decomposition products may cause shortness of breath and/or irritation of mucous membranes.

Skin Contact: May cause slight skin irritation.

Eye Contact: May cause slight eye irritation.

Ingestion: May cause slight gastrointestinal irritation.

Chronic Symptoms: Not available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable Extinguishing Media: Do not use water jet as an extinguisher as this will spread the fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive.

Reactivity: Thermal decomposition generates: Not available.

Advice for Firefighters

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

Firefighting Instructions: Move containers from fire area if it can be done without risk. Prevent fire extinguishing water from contaminating surface and ground water. Dike for water control.

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

Hazardous Combustion Products: Sodium oxides. Chlorine. Hydrogen chloride. Other irritating fumes and smoke.

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Other information: Do not allow run-off from fire fighting to enter drains or water courses. During fire, gases hazardous to health may be formed. Contact with water will generate considerable heat. Contact with most metals may generate hydrogen gas.

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: Do not allow product to spread into the environment. Keep unnecessary personnel away. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

For Non-Emergency Personnel

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

Emergency Procedures: None.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

Methods and Material for Containment and Cleaning Up

Spill Clean-Up: Extinguish all flames in the vicinity. Stop leak if this can be done without risk. Dike the spilled material where possible. Dilute acid with water and neutralize with Sodium Carbonate (soda ash) or lime. Use a non-combustible material like vermiculite, sand, or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Following product recovery, flush area with water.

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: Not available.

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.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in locked up, in a dry, cool and well-ventilated place. Keep container closed when not in use. Store in opaque drums out of direct sunlight to prevent degradation.

Incompatible Materials: Mineral acids. Phosphorus. Metals. Maleic anhydride. Methanol. Chloroform. Amines. Ammonium salts. Reducing agents. Silver nitrate.

Special Rules on Packaging: Keep only in original container.

Specific End Use(s): Chlorine water treatment chemical.

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
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

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Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation. Ensure all national/local regulations are observed.

Personal Protective Equipment: Protective goggles. Gloves.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Rubber gloves.

Eye Protection: Protective goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: A respirator is not needed under normal and intended conditions of use. If airborne concentrations of vapor or mist are expected to exceed exposure limits, use NIOSH-approved respirator.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Clear, colorless
Odor	: Slight chlorine
Odor Threshold	: Not available
pH	: 10.5
Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: Not available
Freezing Point	: 0°C (31°F)
Boiling Point	: 100°C (212°F)
Flash Point	: None
Evaporation Rate	: 40 g/m ² /hr @ 68°F
Auto-ignition Temperature	: None
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure (68°F)	: 17.54 mm Hg
Relative Vapor Density at 20 °C	: Not available
Specific Gravity (68°F)	: 1.0
Solubility	: Complete.
Log Pow	: Not available
Log Kow	: Not available
Viscosity, Kinematic	: Not available
Viscosity, Dynamic	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not available
Explosion Data – Sensitivity to Static Discharge	: Not available

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SECTION 10: STABILITY AND REACTIVITY

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport. May be corrosive to metals.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur. May be corrosive to metals.

Conditions to Avoid: Direct sunlight. Extremely high temperatures.

Incompatible Materials: Mineral acids. Phosphorus. Metals. Maleic anhydride. Methanol. Chloroform. Amines. Ammonium salts. Reducing agents. Silver nitrate.

Hazardous Decomposition Products: Sodium oxides. Chlorine. Hydrogen chloride. Other irritating fumes and smoke.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not available

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Not classified. **pH:** 10.5

Serious Eye Damage/Irritation: Not classified. **pH:** 10.5

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: May cause irritation to the respiratory system.

Symptoms/Injuries After Skin Contact: May cause moderate skin irritation.

Symptoms/Injuries After Eye Contact: Causes severe eye irritation.

Symptoms/Injuries After Ingestion: May cause gastrointestinal irritation.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Water (7732-18-5)	
LD50 Oral Rat	> 90000 mg/kg
Sodium hypochlorite (7681-52-9)	
LD50 Oral Rat	8200 mg/kg
LD50 Dermal Rabbit	> 10000 mg/kg
Sodium hypochlorite (7681-52-9)	
IARC Group	3

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Not established.

Sodium hydroxide (1310-73-2)	
LC50 Fish 1	40 mg/l
Sodium hypochlorite (7681-52-9)	
LC50 Fish 1	0.06 (0.06 - 0.11) mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	0.033 - 0.044 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC 50 Fish 2	4.5 (4.5 - 7.6) mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 2	0.033 (0.033 - 0.044) mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

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Persistence and Degradability

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Persistence and Degradability	Biodegradation is not applicable to inorganic substances.

Bioaccumulative Potential

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Bioaccumulative Potential	Not established.

Mobility in Soil High water solubility indicates a high mobility in soil.

Other Adverse Effects

Other Information: Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Allow to evaporate in place. Do not flush into surface water. Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Ecology – Waste Materials: Not established.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide, sodium hypochlorite)
Hazard Class : 8
Identification Number : UN1760
Label Codes : 8
Packing Group : III
Marine Pollutant : No
ERG Number : 154



14.2 In Accordance with IMDG

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide, sodium hypochlorite)
Hazard Class : 8
Identification Number : UN1760
Packing Group : III
Label Codes : 8
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B
Marine pollutant : Marine pollutant



14.3 In Accordance with IATA

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide, sodium hypochlorite)
Packing Group : III
Identification Number : UN1760
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, sodium hypochlorite)
Packing Group : III
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
Water (7732-18-5)	
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	
Sodium hypochlorite (7681-52-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

US State Regulations

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 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 U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term
Sodium hypochlorite (7681-52-9)
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - New Jersey - Special Health Hazards Substances List U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List 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.
Sodium hydroxide (1310-73-2)
Listed on the Canadian DSL (Domestic Substances List) inventory.
Sodium hypochlorite (7681-52-9)
Listed on the Canadian DSL (Domestic Substances List) inventory.

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

Revision date	: 12/19/2017
Other Information	: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

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GHS Full Text Phrases:

Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects

NFPA Health Hazard

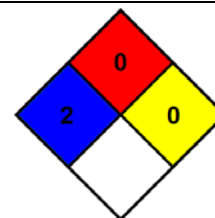
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

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

: 0 Minimal Hazard

Party Responsible for the Preparation of This Document

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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.

NA GHS SDS 2015 (U.S., Can., Mex.)