



Safety Data Sheet

Section 01 - Identification

Product Identifier	FilterClean A
Other Means of Identification	None
Product Use and Restrictions on Use	Activating additive for treatment and removal of heavy deposits from water tank surfaces.
Initial Supplier Identifier	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
Prepared By	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
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Section 02 - Hazard Identification

GHS-Classification

Acute Toxicity-Oral	Category 4
Acute Toxicity-Inhalation	Category 4
Skin Corrosion/Irritation	Category 1A
Serious Eye Damage/Irritation	Category 1
STOT-Single Exposure	Category 3

Physical Hazards

Oxidizing Liquid	Category 1
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Danger

Hazards Statements

- H302 – Harmful if swallowed.
- H332 – Harmful if inhaled.
- H314 – Causes severe skin burns and eye damage.
- H335 – May cause respiratory irritation.
- H271 – May cause fire or explosion; strong oxidizer.

Pictograms



Precautionary Statements

P405 – Store locked up.

P403 + P233 – Store in a well-ventilated place. Keep container tightly closed.

P280 – Wear protective gloves, protective clothing, eye protection, and face protection.

P270 – Do not eat, drink or smoke when using this product.

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.

P363 – Wash contaminated clothing before reuse.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P260 – Do not breathe mist, vapours or spray.

P271 – Use only outdoors or in a well-ventilated area.

P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P310 – Immediately call a POISON CENTER or doctor/physician.

P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act

Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Hydrogen Peroxide	7722-84-1	10-20%	

Section 04 - First Aid Measures

Inhalation	Remove source of contamination or move victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek immediate medical attention.
Skin Contact / Absorption	Remove contaminated clothing. Rinse skin with lukewarm, gently flowing water for 30 minutes. Seek immediate medical attention. Store the contaminated clothing under water and wash before re-use or discard.
Eye Contact	Immediately flush eye(s) with lukewarm, gently flowing water for 30 minutes while forcibly holding the eyelid(s) open to ensure complete irrigation of the eye tissue. If a contact lens is present, remove only if easy to do so. Seek immediate medical attention.
Ingestion	Have victim rinse mouth. DO NOT induce vomiting. If vomiting occurs, lean victim forward to prevent breathing in vomit. Seek immediate medical attention.
Additional Information	Not Available.

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Hydrogen peroxide does not burn. Use extinguishing media suitable for the surrounding fire. Use large quantities of water as fog to fish fires in which this material is involved.
Unsuitable Extinguishing Media	Not Available.
Specific Hazards Arising From the Chemical	Hydrogen peroxide decomposes to molecular oxygen, which can accelerate the burning of flammable materials or cause spontaneous combustion. Close containers may rupture violently due to rapid decomposition, if exposed to fire or excessive heat for a sufficient period of time, or if contaminated with certain metals or dirt. Large amounts of oxygen gas may be released to form an oxygen-rich atmosphere. No part of a container should be subjected to a temperature higher than 49°C
Special Protective Equipment and Precautions for Fire-Fighters	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

Further Information

Product is a strong oxidizer and the heat of a reaction with reducing agents or combustibles may cause ignition. Product will increase the flammability of combustible, organic and readily oxidizable materials.

Section 06 - Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Flush with water to remove any residue.

Environmental Precautions Prevent material from entering sewers, waterways or confined spaces.

Methods and Materials for Containment and Cleaning Up SMALL SPILLS: Flush area with water.
LARGE SPILLS: Dike with earth, sand or inert sorbent material to contain spill. Remove liquid with compatible pumps or vacuum equipment. Place in suitable, covered, labelled, vented containers. Flush area with excess water. Keep material which can burn away from spilled material. Contaminated absorbent material may pose the same hazards as the spilled product.

Section 07 - Handling and Storage

Precautions for Safe Handling This material is an OXIDIZER and an EYE IRRITANT. Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.

Conditions for Safe Storage Store in a cool area, out of direct sunlight away from heat sources and away from incompatible and combustible materials. Keep quantities stored as small as possible.

Incompatibilities Combustible materials (wood, paper, textiles), strong bases, organic compounds, metals, metal oxides, metal sulfides metal salts, iodates, reducing agents.

Section 08 - Exposure Controls and Personal Protection**Exposure Limit(s)**

Component	Regulation	Type of Listing	Value
Hydrogen peroxide	ACGIH	TLV-TWA	1ppm
	OSHA	PEL-T-TWA	1ppm

Engineering Control(s)

Ventilation Requirements Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.

Other Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

Protective Equipment

Eyes/Face Chemical goggles, full-face shield, or a full-face respirator should be worn at all times when product is handled. Contact lenses should not be worn as they may contribute to severe eye injury.

Hand Protection Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

Skin and Body Protection Body suits, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

Wear approved boots made of NBR, PVC, Polyurethane, or neoprene. Over boots made of latex or PVC, as well as firefighter boots or specialized HAZMAT boots are also permitted. DO NOT wear any form of boot or over boots made of nylon or nylon blends.

Respiratory Protection

If concentrations in excess of 10ppm are expected, use NIOSH/DHHS approved self-contained breathing apparatus (SCBA), or other approved atmosphere-supplied respirator (ASR) equipment. DO NOT use any form of air-purifying respirator (APR) or filtering face piece (AKA dust mask), especially those containing oxidizable sorbants such as activated carbon.

Thermal Hazards

Not Available.

Section 09 - Physical and Chemical Properties

Appearance

Physical State	Liquid
Colour	Colourless
Odour	Nearly Odourless
Odour Threshold	Not Available

Property

pH	2-3.5
Melting Point/Freezing Point	-6.4°C
Initial Boiling Point and Boiling Range	101.7°C
Flash Point	Does not burn, but is a weak oxidizing material and can slightly increase the burning rate of a fire.
Evaporation Rate	Not Available
Flammability	Does not burn. Mild oxidizing agent.
Upper Flammable Limit	Not Applicable
Lower Flammable Limit	Not Applicable
Vapour Pressure (mm Hg, 20°C)	0.076 mmHg @ 25°C
Vapour Density (Air=1)	1.17
Relative Density	Not Available
Solubility(ies)	Completely soluble
Partition Coefficient: n-octanol/water	Log K _{ow} = -0.70 to -1.33
Auto-ignition Temperature	Not Applicable
Decomposition Temperature	150-152°C
Viscosity	Not Available

Explosive Properties	Contact with oxidizable materials may cause extremely violent combustion. Drying of concentrated FilterClean A on clothing and/or other combustible materials may cause fire or explosion. Sealed containers may rupture when heated.
Specific Gravity (Water=1)	1.03 @ 20°C
% Volatiles by Volume	100%
Formula	H ₂ O ₂
Molecular Weight	34.02

Section 10 - Stability and Reactivity

Reactivity	The National Fire Protection Association (NFPA) lists hydrogen peroxide solutions (greater than 8% up to 27.5%) as a Class 1 Oxidizer. Class 1 Oxidizers do not moderately increase the burning rate of combustible materials with which they come into contact.
Stability	Solutions which are completely free of contamination are relatively stable. Alkaline solutions are less stable than acidic ones. Can decompose in sunlight and readily liberates oxygen, water and heat.
Possibility of Hazardous Reactions	None reported.
Conditions to Avoid	Temperatures greater than 100°C, heat, open flames, contamination, depletion of stabilizers, pH greater than 4.5
Incompatible Materials	Combustible materials (wood, paper, textiles), strong bases, organic compounds, metals, metal oxides, metal sulfides metal salts, iodates, reducing agents.
Hazardous Decomposition Products	Molecular oxygen (O ₂)

Section 11 - Toxicological Information

Acute Toxicity Estimate

Component	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Filter Clean A	22.6 g/kg (rat)	Not Available	28 g/m ³ (rat, 4hr)

This product has been classified in accordance with the Hazardous Products Regulations using ATE formula documented in the GHS standard.

Chronic Toxicity – Carcinogenicity

Component	IARC
Hydrogen peroxide	Not listed as a human carcinogen.

Skin Corrosion/Irritation	Non-irritating to mild skin irritant. Whitening or bleaching of the skin has been observed.
Ingestion	Harmful if swallowed. Symptoms include sharp pains in the abdomen, foaming at the mouth, vomiting, temporary unconsciousness, and fever. Significant neurological impairment has been described. Hydrogen peroxide reacts in the stomach releasing large amounts of oxygen, which may result in the entry of gas into the circulatory system (gas embolism).
Inhalation	Can form a vapour at normal temperatures. Vapour or mists from solutions can be irritating to corrosive to the nose, throat and respiratory tract depending on the concentration and the duration of exposure. In severe cases, bronchitis or a potentially life-threatening accumulation of fluid in the lungs (pulmonary edema) may occur.

Serious Eye Damage/Irritation	Moderately to severely irritating. Solutions of 10% or higher may cause serious eye damage.
Respiratory or Skin Sensitization	Not known to be a sensitizer.
Germ Cell Mutagenicity	Not expected to be mutagenic.
Reproductive Toxicity	Not expected to cause reproductive toxicity.
STOT-Single Exposure	May cause irreversible eye damage. Causes respiratory irritation.
STOT-Repeated Exposure	Not Available
Aspiration Hazard	Not Available
Synergistic Materials	Increased airways resistance was observed in volunteers exposed to hydrogen peroxide and sulfur dioxide aerosols at the same time. Exposure to hydrogen peroxide also increased the toxicity of ozone in animals.

Section 12 – Ecological Information

Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Hydrogen peroxide	EC ₅₀ (Blue-green algae, 3h): 0.45mg/L	LC ₅₀ (Ictalurus punctatus, 24hr): 0.055mg/L	EC ₅₀ (Daphnia magna, 48hr): 2.32mg/L
Biodegradability	Not Available		
Bioaccumulation	Not Available		
Mobility	Not Available		
Other Adverse Effects	FilterClean A in the aquatic environment is subject to various reduction or oxidation processes and decomposes into water and oxygen. FilterClean A half-life in fresh water ranged from 8 hours to 20 days, in air from 10 to 20 hours and in soils from minutes to hours depending upon microbiological activity and metal contaminants.		

Section 13 – Disposal Considerations

Waste From Residues/Unused Products	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 14 – Transport Information

UN Number	UN2984
UN Proper Shipping Name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Transport Hazard Class(es)	5.1
Packaging Group	III
Environmental Hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special Precautions	Not Available
Transport in Bulk	Not Available
Additional Information	<u>Packing Group</u> III <u>Limited Quantity Index</u> 5 L

TDG

Other

Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

TDG PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

Section 15 – Regulatory Information

NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

NSF Certification..... Product is certified under NSF for a tank and filter cleaner and as a media cleaner.

Section 16 – Other Information

Preparation Date

September 22, 2015

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

Attention: Receiver of the chemical goods / SDS coordinator

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution[®] initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

References:

- 1) CHEMINFO
- 2) eChemPortal
- 3) TOXNET
- 4) Transportation of Dangerous Goods Canada
- 5) HSDB
- 6) ECHA
- 7) PAN

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