



**SAFETY DATA SHEET**  
**TOTAL 100-HP**

**Protection Required**



**SECTION 1 - MATERIAL IDENTIFICATION AND USE**

**Manufacturer's Name** : PMC Water Systems Services Inc.  
**Manufacturer's Address** : 124 Connie Crescent, Unit 9, Concord, ON L4K 1L7  
**Manufacturer's Phone #** : (905) 669-8262  
**24 Emergency Phone #** : Canutec (613) 996-6666  
**Product Identifier** : Total 100-HP  
**Product Use** : Water Treatment

**SECTION 2 – COMPOSITION/INGREDIENTS OF MATERIAL**

<b>Ingredients</b>	<b>Concentration</b>	<b>CAS #</b>	<b>LD<sub>50</sub></b>	<b>LC<sub>50</sub></b>
Hydrogen Peroxide	15-20%	7722-84-1	1193 mg/kg (oral - rat)	0.17 mg/L 4H (inhalation – rat, no deaths)
Phosphonic Acid	1-5%	2809-21-4	2400 mg/kg (oral - rat)	No Data Available

**SECTION 3 – HAZARDS IDENTIFICATION**

**Hazard Statement** May intensify fire; oxidizer. Harmful if swallowed. Causes severe skin burns and eye damage. May be harmful if inhaled. Harmful to aquatic life.

**Precautionary Statement** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Wear protective gloves/protective clothing/eye protection/ face protection. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. **If swallowed:** Call a Poison Center/doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. **If inhaled:** Remove person to fresh air and keep comfortable for breathing. Call a Poison Center/doctor if you feel unwell. **If on skin (or hair):** immediately take off all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. **If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. Store locked up. Avoid release to the environment. Dispose of contents/container in accordance with local/regional/national/international regulations.

**SECTION 4 – FIRST AID MEASURES**

**Eye Contact** Immediately flush eyes thoroughly with running water for at least 20 to 30 minutes. Seek immediate medical attention/advice.

**Skin Contact** Remove/Take off immediately all contaminated clothing. Flush contaminated area with lukewarm, gently running water for at least 5 to 10 minutes or until the chemical is removed. Seek immediate medical attention/advice. Wash contaminated clothing before reuse. Leather and shoes that have been contaminated with the solution may need to be destroyed.

**Inhalation** Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Seek immediate medical attention/advice.

**Ingestion** Seek immediate medical attention/advice. Do not induce vomiting. Have victim rinse mouth with water, then give one to two glasses of water to drink. Never give anything by mouth to an unconscious person.

**Notes to Physician** Hydrogen peroxide at this concentration is a strong oxidant. Direct contact with the eye is likely to cause corneal damage especially if not washed immediately. Careful ophthalmologic evaluation is recommended and the possibility of local corticosteroid therapy should be considered. Due to the likelihood of corrosive effects on the gastrointestinal tract after ingestion, and the unlikelihood of systemic effects, attempts at evacuating the stomach via emesis induction or gastric lavage should be avoided. There is a remote possibility, however, that a nasogastric or orogastric tube may be required for the reduction of severe distension due to gas formation.

## SECTION 5 - FIRE FIGHTING MEASURES

<b>Flammability</b>	Not Flammable
<b>Flash Point</b>	Not Applicable
<b>Autoignition Temperature</b>	Not Available
<b>Extinguishing media</b>	Fires should be flooded with large amounts of water. Avoiding using other types of extinguishing materials, such as foam or dry chemicals. Avoid using carbon dioxide or other similar extinguishing agents as they are not effective in fires involving oxidizers.
<b>Special Firefighting Procedures</b>	Fight fires from a safe distance. Evacuate personnel to safe areas. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. A full-body chemical resistant suit should be worn. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.
<b>Protective Equipment</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
<b>Special Hazards</b>	May intensify fire; oxidizer. Substance releases oxygen when heated, which may increase the severity of an existing fire.
<b>Hazardous Combustion Products</b>	Oxygen

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up.
<b>Environment Precautions</b>	Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. For large spills, dike the area to prevent spreading.
<b>Spill Response/Cleanup</b>	Ventilate area of release. Remove all sources of ignition. Stop leak if you can do so without risk. Dike for water control. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal. Contact the proper local authorities.

## SECTION 7 – HANDLING AND STORAGE

<b>Personal Precautions</b>	Use in a well-ventilated area. Wear chemically resistant protective equipment during handling. Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Keep away from combustible material. Ground all equipment during handling. Never return contaminated material to its original container. Combustible materials exposed to hydrogen peroxide should be immediately submerged in or rinsed with large amounts of water to ensure that all hydrogen peroxide is removed. Residual hydrogen peroxide that is allowed to dry (upon evaporation hydrogen peroxide can concentrate) on organic materials such as paper, fabrics, cotton, leather, wood or other combustibles can cause the material to ignite and result in a fire. Label containers appropriately. Wash thoroughly after handling. Keep containers closed when not in use.
<b>Storage Requirements</b>	Store in a cool, dry, well-ventilated area. Store away from incompatibles and out of direct sunlight. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area. Store in corrosion-resistant containers. Store in vented containers. Do not store on wooden pallets. Protect from sunlight. Unsuitable materials for containers: Steel; Iron; Nickel; Copper.

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Ventilation</b>	Provide exhaust ventilation or other engineering controls to keep the airborne concentration of vapours below their respective threshold limit value. Use explosion-proof equipment.
<b>Respiratory Protection</b>	Respiratory protection is required if the concentrations exceed the TLV. Wear a positive-pressure supplied-air respirator. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02.
<b>Skin Protection</b>	Impervious gloves must be worn when using this product. Wear impervious gloves, such as butyl rubber. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Full protective flameproof clothing. Chemical resistant clothing and boots.
<b>Eye/Face Protection</b>	Chemical splash goggles are recommended. A full face shield may also be necessary.
<b>General Hygiene</b>	Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse. An eyewash station and safety shower should be made available in the immediate working area. Other equipment may be required depending on workplace standards.

Ingredient	Exposure Limit - ACGIH	Exposure Limit -OSHA	Immediately Dangerous to Life or Health - IDLH
Hydrogen Peroxide	1 ppm TLV-TWA	1 ppm TWA 1.4 mg/m <sup>3</sup> TWA	75 ppm

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	:	Liquid
<b>Odour and Appearance</b>	:	Faint amine odour; clear, colourless
<b>Odour Threshold</b>	:	No Data Available
<b>Specific Gravity (Water = 1)</b>	:	1.02
<b>Vapour Pressure (mmHg)</b>	:	31.1 Pa @ 30°C, 86°F
<b>Vapour Density (Air = 1)</b>	:	No Data Available
<b>Evaporation Rate</b>	:	No Data Available
<b>Boiling Point</b>	:	126°C, 259°F
<b>Freezing/Melting Point</b>	:	-40°C, -40°F
<b>pH</b>	:	3 - 4
<b>Coefficient Water/Oil Distribution</b>	:	Not Available
<b>Solubility in Water</b>	:	Easily soluble in cold water and hot water

## SECTION 10 – STABILITY AND REACTIVITY

<b>Stability/Reactivity</b>	This product is stable only when cool and pure. Reacts vigorously, violently or explosively with many organic and inorganic chemicals, such as strong acids, acid chlorides, acid anhydrides, ketones, glycols, and organic peroxides.
<b>Conditions for Chemical Instability</b>	Heat, open flame and direct sunlight. Keep away from incompatibles. Keep container tightly closed when not in use. Dangerously reactive material. Stability depends upon many factors including temperature, pH, and the presence of impurities. Solutions that are completely free of contamination are relatively stable. May decompose violently if impurities are present.
<b>Conditions to Avoid</b>	Avoid heat and open flame. Ensure adequate ventilation, especially in confined areas. Avoid contact with incompatible materials. Do not keep container sealed. Keep out of direct sunlight. Keep away from combustible material.
<b>Hazardous Decomposition Products</b>	Oxygen. Steam.
<b>Hazardous Polymerization</b>	Will not occur.
<b>Incompatible Materials</b>	Reducing agents; Combustible material; Organic materials; Reactive metals; Fuel; Solvent; Alkalies. Zinc, Powdered metals, Iron, Copper, Nickel, Brass, Iron and iron salts.

## SECTION 11 – TOXICOLOGICAL INFORMATION

<b>Routes of Entry</b>	:	Inhalation, skin and eye contact, ingestion
<b>Skin Contact</b>	:	Causes skin irritation. Symptoms may include redness, edema, drying defatting and cracking of the skin.
<b>Eye Contact</b>	:	Causes serious eye damage. Permanent eye damage including blindness could result. Symptoms may include severe pain, tearing, redness, swelling and blurred vision.
<b>Ingestion</b>	:	May cause severe irritation and corrosive damage in the mouth, throat and stomach. Symptoms may include abdominal pain, nausea, vomiting, diarrhea and collapse.
<b>Inhalation</b>	:	If product is heated or mists are formed, inhalation may cause irritation to the nose, throat and respiratory tract. Symptoms may include coughing, choking and wheezing. Inhalation of extremely high concentrations could cause pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed.
<b>Chronic Exposure Effects</b>	:	None known.
<b>Sensitization</b>	:	Not expected to be a skin or respiratory sensitizer.
<b>Carcinogenicity</b>	:	This material is not classified as hazardous under U.S. OSHA regulations and Canadian WHMIS regulations.
<b>Teratogenicity/Reproductive</b>	:	Not expected to have other reproductive effects.
<b>Mutagenicity</b>	:	Not expected to be mutagenic in humans.

## SECTION 12 – ECOLOGICAL INFORMATION

**Ecotoxicity** Not expected to be harmful to aquatic organisms. Do not allow material to contaminate ground water system.

## SECTION 13 – DISPOSAL CONSIDERATIONS

**Waste Disposal** Dispose in accordance with federal, provincial or local government requirements. Contact your local, provincial or federal environmental agency for specific regulations.

## SECTION 14 – TRANSPORT INFORMATION

**TDG Shipping Regulations** UN 2984, Hydrogen peroxide, aqueous solutions with not less than 8 percent but less than 20 percent hydrogen peroxide (stabilized as necessary), 5.1, PG III

**Domestic Substances List** All ingredients are listed on the DSL or are not required to be listed.

## SECTION 15 – REGULATORY INFORMATION

**WHMIS Classification** Class C: Oxidizing Material  
Class D1B: Toxic Material  
Class E: Corrosive Material  
Class F: Dangerously Reactive Material

## SECTION 16 – OTHER INFORMATION

**Prepared by:** Lab Services  
PMC Water Systems Services Inc.  
124 Connie Crescent, Unit 9  
Concord, ON L4K 1L7

**Preparation Date:** January 8, 2019

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While all the data presented is believed to be accurate at the time of preparation, PMC Water Systems Services Inc. makes no warranty; the data is offered for your consideration, investigation and verification.

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