Safety Data Sheet
HemaPeroxy Liquid Disinfectant

Document No. M-D6-021

Section I – Product and Company Identification

**Synonym:** Peroxyacetic Acid Solution, Peracetic Acid Solution
**TPP DIN No.:** 02414937
**Product Code:** HPX25

**Company Identification:**

Chief Medical Supplies Ltd.
411 – 19 Street, S. E.
Calgary, AB., Canada.
T2E 6J7
1.866.620.6034

For information, call: 1-403-207-6034
Emergency Number: 1-403-207-6034

**General Use:** HemaPeroxy disinfectant has been formulated for use in the circulation cleaning and sanitizing of equipment such as tanks, pipelines, evaporators, fillers, pasteurizers, and aseptic equipment in dairies, wineries, breweries and beverage plants.

HemaPeroxy disinfectant is for sanitizing of inanimate, non-food contact surfaces (general environmental surfaces).

HemaPeroxy disinfectant is for use in the disinfection of hard surfaces in general commercial and medical environments.

Section II – Hazards Identification

**Appearance:** Clear colorless liquid
**Physical State:** Liquid

**Odor:** Sharp, pungent, vinegar-like

**Hazards of Product:** Severely irritating to skin and eyes. Oxidizer: Stabilized peracetic acid, an ingredient in this product, decomposes under fire conditions to release oxygen that intensifies the fire. Use water to keep fire-exposed containers closed.

**Potential Health Hazards**

Liquid and mist are corrosive (causing burns); direct contact could cause irreversible damage to eyes including blindness and/or irreversible destruction of skin tissue. Vapor/mist will irritate nose, throat and lungs but will usually subside when exposure ceases.
<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS No.</th>
<th>Wt. %</th>
<th>EC No.</th>
<th>EC Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peroxyacetic Acid</td>
<td>79-21-0</td>
<td>2 – 3</td>
<td>201-186-8</td>
<td>O, C, Xn, N; R7-R10-R20/21/22-R35-R50</td>
</tr>
<tr>
<td>Hydrogen Peroxide</td>
<td>7722-84-1</td>
<td>10 – 12</td>
<td>231-765-0</td>
<td>O, C, Xn; R5- R8-R20/22-R35</td>
</tr>
<tr>
<td>Acetic Acid</td>
<td>64-19-7</td>
<td>5 – 6</td>
<td>200-580-7</td>
<td>C; R10-35</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>83 – 85</td>
<td>231-792-2</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

**Section IV – First Aid Measures**

**Skin Contact:** Immediately flush with plenty of water while removing contaminated clothing and/or shoes, and thoroughly wash with soap and water. Obtain immediate medical attention. Contact a medical doctor if necessary.

**Eye Contact:** Immediately flush with water for at least 15 minutes, lifting the upper and lower eyelids intermittently. See a medical doctor immediately.

**Inhalation:** Remove to fresh air. If breathing discomfort occurs and persists, see a medical doctor. If breathing has stopped, give artificial respiration and see a medical doctor immediately.

**Ingestion:** Rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. See a medical doctor immediately.

**Notes to Medical Doctor:** This product can be corrosive to skin, eyes and mucous membranes. Consideration should be given to careful endoscopy as stomach or esophageal burns, perforations or strictures may occur. Careful gastric lavage with an endotracheal tube in place should be considered. Observation may be warranted. Treatment is controlled removal of exposure followed by symptomatic and supportive care.

**Section V – Fire Fighting Measures**

**Conditions of flammability:** Not available

**Means of extinction:** Use water spray to keep fire exposed containers cool. Extinguish fire using agents suitable for nearby fires.

**Auto-ignition temperature:** 270 °C (518 °F)

**Hazardous combustion products:** Oxygen that can initiate or promote combustion.

**Explosion data - sensitivity to mechanical impact:** Not available

**Explosion data - sensitivity to static discharge:** Not available

**Fire Fighting Media and Instructions:** Use flooding quantities of water only. Use water spray to keep fire exposed containers cool. Fight fire from protected location or maximum distance. Chemical type extinguishers are not effective with peracetic acid or hydrogen peroxide, which are ingredients in this product. Use proper personal protective equipment and positive pressure self contained breathing apparatus.

**Special Remarks on Fire Hazards:** Not available

**Special Remarks on Explosion Hazards:** Not available
Section VI – Accidental Release Measures

**Spill:** Approach release from upwind. Stop or control leak using special protective clothing and positive pressure self-contained breathing apparatus. Control run off and isolate discharged material for proper disposal. Do not allow undiluted material to enter storm or sanitary sewer systems. Combustible materials exposed to hydrogen peroxide, an ingredient in this product, 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.

Section VII – Handling and Storage

**Handling Procedures:** Transfer product from drums to process in closed system (hermetically) and if not possible use effective local exhaust ventilation. Empty drum as thoroughly as possible. Triple rinse before disposal. Avoid contamination; impurities accelerate decomposition. Never return product to original container. Use airless spray to minimize mist generation.

**Storage Requirements:** Do not store near reducing agents, fuels or other non-compatible materials. Store in a cool, dry, well ventilated area. For quality purposes, avoid temperatures above 86º F. Higher temperatures will accelerate decomposition resulting in a loss of assay. Do not store in direct sunlight, or near sources of ignition or heat. Do not double stack. Use first in, first out storage system. Containers must be vented. Expected shelf life - 1 year.

Section VIII – Exposure Controls/Personal Protection

**Engineering Controls:** Provide mechanical local exhaust ventilation to prevent release of mist into the work area. If ventilation is inadequate or not available use acid gas cartridge or canister with full face-piece. If release is expected, use respiratory protection. Ventilate all transport vehicles prior to unloading.

**Personal Protection**

**Eyeware:** Use cup type chemical goggles. Full face shield may be used.

**Gloves:** Rubber or neoprene gloves. Thoroughly wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks.

**Clothing:** Rubber or neoprene footwear and aprons, or full protective clothing. Hydrogen peroxide is an ingredient in this product; completely submerge hydrogen peroxide contaminated clothing or other materials in water prior to drying. Residual hydrogen peroxide, if allowed to dry on materials such as paper, fabrics, cotton, leather, wood or other combustibles can cause the material to ignite and result in a fire.

**Respirator:** For normal use as directed, respiratory protection is not required. However, if exposures are anticipated to be above the limits as indicated in the "Exposure Limit" table, an approved full-face acid/gas cartridge or canister respirator should be used. If concentrations are unknown (e.g., significant spill or other emergencies), or if they are anticipated to be above 5 ppm for hydrogen peroxide or 50 ppm for acetic acid, the use of a full-face airline supplied respirator or self-contained breathing apparatus (SCBA) is recommended.

**Exposure Limits:**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>OSHA</th>
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</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide</td>
<td>1 ppm (TWA)</td>
<td>1 ppm (PEL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.4 mg/m³ (PEL)</td>
</tr>
<tr>
<td>Acetic Acid</td>
<td>15 ppm (STEL)</td>
<td>10 ppm (PEL)</td>
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<tr>
<td></td>
<td></td>
<td>25 mg/m³ (PEL)</td>
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<tr>
<td>Sulfuric Acid</td>
<td>2 mg/m³ (STEL)</td>
<td>1 mg/m³ (TWA)</td>
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</tbody>
</table>
Section IX – Physical and Chemical Properties

Physical state: Liquid
Odour and appearance: Clear and colourless, sharp pungent vinegar-like odor
Odour threshold: Not available
Specific gravity: 1.10 @ 20°C (H₂O = 1)
Vapour pressure: 22 mm Hg @ 25 °C (77 °F)
Vapour density: Not available
Evaporation rate: Not available
Boiling point: About 99 °C (210 °F)
Freezing point: Not available
Flash point and method of determination: Approximately 83 °C (181 °F) (CC)
Upper flammable limit: Not available
Lower flammable limit: Not available
pH: <1
pH (1% solution): 2-3
Coefficient of water/oil distribution: Not Available
Taste: Not available
Critical Temperature: Not available
Self-Accelerating Decomposition Temperature (SADT): > 55°C (55 gallon drum)
Dispersion Properties: Not available
Solubility: Soluble in water

Section X – Stability and Reactivity

Stability: Stable (expected shelf life - 1 year, when stored at temperatures below 86°F).
Conditions to avoid: Open flames, elevated temperatures, any source of heat, combustibles such as paper and wood and contamination. For quality purposes, avoid temperatures above 86°F. Higher temperatures will accelerate decomposition resulting in a loss of assay.
Incompatible materials: Dirt, alkali, reducing agents, organics and heavy metals such as iron, copper, chromium, aluminum, cobalt and caustic.
Conditions of reactivity: Not available
Hazardous decomposition products: Oxygen that supports combustion and acetic acid.
Polymerization: Will not occur
Section XI – Toxicological Information

Routes of exposure: Eye contact (severely irritating), skin contact (severely irritating).

Target Organs: Eyes, skin, nose, throat, lungs

Dermal LD₅₀: No data available for the product. 17% Peracetic Acid: > 200 mg/kg (rabbit)

Oral LD₅₀: 1,922 mg/kg (rat)

Inhalation LC₅₀: 5% PAA: 4,080 mg/m ³ (4157 ppm) (4 h) (rat) [FMC Study I96-2138] 100% PAA: 204 mg/m ³ (66 ppm) (4 h) (rat)

Acute effects from overexposure: Liquid may cause severe burns and irreversible tissue damage to eyes, including blindness. Product contains peracetic acid. Inhalation of peracetic acid vapors causes lacrimation and irritation of the mucous membranes, eyes and nasal passages.

Chronic effects from overexposure: No data available for the product. Product contains hydrogen peroxide. The International Agency for Research on Cancer (IARC) has concluded that there is inadequate evidence for carcinogenicity of hydrogen peroxide in humans, but limited evidence in experimental animals (Group 3 - not classifiable as to its carcinogenicity to humans). The American Conference of Governmental Industrial Hygienists (ACGIH) has concluded that hydrogen peroxide is a 'Confirmed Animal Carcinogen with Unknown Relevance to Humans' (A3).

Persons who are asthmatics may be more sensitive to the effects of inhaled acid sulfates. The International Agency for Research on Cancer (IARC) has concluded that occupational exposure to strong inorganic acid mists containing sulfuric acid are carcinogenic to humans (Group 1). The American Conference of Governmental Industrial Hygienists (ACGIH) has concluded that sulfuric acid, contained in strong inorganic acid mists, is a 'Suspected Human Carcinogen' (A2 - limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals with relevance to humans).

Carcinogenicity:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
<th>Other</th>
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</thead>
<tbody>
<tr>
<td>Hydrogen Peroxide</td>
<td>3</td>
<td>Not listed</td>
<td>Not listed</td>
<td>(ACGIH) A3</td>
</tr>
</tbody>
</table>

Section XII – Ecological Information

Ecotoxicity:

96-hour LC₅₀ = 1.6 mg/L (Rainbow trout) [FMC I95- 2023]

96-hour LC₅₀ = 1.1 mg/L (Bluegill sunfish) [FMC I95- 2029]

48-hour EC₅₀ = 0.73 mg/L (Daphnia magna) [FMC I95- 2021]

120-hour EC₅₀ = 0.18 mg/L (Selenastrum, green algae) [FMC I95- 2027]

Chemical Fate Information: No data available for the product. Peracetic acid is completely miscible with water. Aqueous solutions of peracetic acid hydrolyze to acetic acid and hydrogen peroxide.

Section XIII – Disposal Considerations

Waste disposal: Discharge as a hazardous waste into a suitable treatment system in accordance with local, state and federal governmental agencies.
Section XIV – Transport Information

DoT
UN number: 3149
**UN proper shipping name**: Hydrogen Peroxide and Peroxyacetic Acid Mixtures, Stabilized with Acids, Water and not more than 6% Peroxyacetic Acid.
**Primary hazard class/division**: 5.1
**Hazard class, subsidiary**: 8
**Packing group**: II
**Label(s)**: 5.1 Oxidizer and Subsidiary Risk: 8 (Corrosive)
**Placard(s)**: Bulk: 5.1 Oxidizer
**Marking(s)**: Hydrogen Peroxide and Peroxyacetic Acid Mixtures, Stabilized with Acids, Water and not more than 3% Peroxyacetic Acid, UN 3149.
**Additional information**: Hazardous Substance/RQ: Not applicable 49 STCC Number: Not required - no rail shipments Material is shipped in 5 gal. (45 lb.), 30 gal. (250 lb.) And 55 gal. (495 lb.) vented linear (not cross linked) polyethylene drums and IBCs.

IMDG
**Proper Shipping Name**: Hydrogen Peroxide and Peroxyacetic Acid Mixtures, Stabilized with Acids, Water and not more than 3% Peroxyacetic Acid.

ICAO/IATA
**Proper shipping name**: Hydrogen Peroxide and Peroxyacetic Acid Mixtures, Stabilized with Acids, Water and not more than 3% Peroxyacetic Acid
**Additional Information**: NOTE: Venting of packages is not permitted for air transport.

**Other Information**: Protect against physical damage. Use proper personal protective equipment and positive pressure self-contained breathing apparatus when handling spills or leaks. Dike any spills. If this material is ever shipped via vessel, the container requires subsidiary placarding in addition to main hazard class placards.
**WHIMIS classification:**

**Product Identification Number:** 9183

**Hazard Classification:** Class D, Div. 2, Subdiv. B. (Toxic), Class E (Corrosive), Class C

**Ingredient Disclosure List:** Listed

**Hazard and risk phrase descriptions:**

**EC Symbols:**
- O (Oxidizer)
- C (Corrosive)
- Xn (Harmful)
- N (Dangerous for the environment)

**EC Risk Phrases:**
- R7 (May cause fire)
- R8 (Contact with combustible material may cause fire)
- R10 (Flammable)
- R20/21/22 (Harmful by inhalation, in contact with skin and if swallowed.)
- R20/22 (Harmful by inhalation and if swallowed.)
- R35 (Causes severe burns.)
- R50 (Very toxic to aquatic organisms.)
Section XVI – Other Information

HMIS

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<thead>
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<tbody>
<tr>
<td>Health</td>
<td>3</td>
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<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Physical Hazard</td>
<td>2</td>
</tr>
<tr>
<td>Personal Protection (PPE)</td>
<td>H*</td>
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</tbody>
</table>

*Protection H = Safety goggles, gloves, apron, and a vapor respirator

HMIS = Hazardous Materials Identification System

Degree of Hazard Code: 4 = Severe, 3 = Serious, 2 = Moderate, 1 = Slight, 0 = Minimal

NFPA

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<td>Health</td>
<td>3</td>
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<td>Flammability</td>
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<tr>
<td>Reactivity</td>
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<tr>
<td>Special</td>
<td>OX</td>
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</tbody>
</table>

NFPA (National Fire Protection Association)

Degree of Hazard Code: 4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Insignificant

SDS creation date: Nov 9, 2013

Last revision date: Oct 1, 2016

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Chief Medical Supplies be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Chief Medical Supplies has been advised of the possibility of such damages.

This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.