

**MATERIAL SAFETY DATA SHEET**  
**PERIDOX®**

MSDS Ref. # 000101  
Version: US/Canada  
Date Approved: 09/08/09  
Revision No.: 00002

### 1. PRODUCT AND COMPANY IDENTIFICATION:

**PRODUCT:** PERIDOX®

**SYNONYM(s):** Hydrogen Peroxide, Hydroperoxide for first component;  
Peracetic Acid, Peroxyacetic Acid for second component

**REGISTRATIONS:** EPA registration No. 81073-1

**MANUFACTURER:** CET, LLC.  
13695 Rider Trail North  
St. Louis, Missouri 63045  
Emergency Phone: 314-222-4640 (7:00am-4:30pm, CST)

### 2. COMPOSITION AND HAZARDOUS INGREDIENTS:

| Chemical Name     | Average Concentration |           | Exposure Limits   |
|-------------------|-----------------------|-----------|---|
|                   | CAS #                 | Range;Wt% |   |
| Hydrogen Peroxide | 7722-84-1             | 23-25%    | 1ppm (TWA) ACGIH;<br>1ppm PEL (1.4mg/m <sup>3</sup> )<br>OSHA |
| Peroxyacetic Acid | 79-21-0               | 1.0-1.4%  |   |
| Other             |                       | 1.0-2.0%  |   |
| Water             | 7732-18-5             | Balance   |   |

**“DANGER! Oxidizing and Corrosive Liquid”**

### 3. PHYSICAL DATA:

|                    |                                   |
|--------------------|-----------------------------------|
| ODOR:              | Sharp, pungent, vinegar-like odor |
| APPEARANCE:        | Colorless with slight gray tinge  |
| pH @ 20°C:         | 1.3                               |
| SOLUBILITY:        | 100% in water                     |
| SPECIFIC GRAVITY:  | 1.11 g/ml, 9.26 lbs/gal           |
| PERCENT VOLATILES: | >98%                              |
| VISCOSITY          | 1.27 cps                          |

#### 4. HANDLING AND STORAGE

**HANDLING:** Store drums in upright position only. Empty drums as thoroughly as possible. Triple rinse before disposal. Avoid contamination; impurities accelerate decomposition. Never return product to original container.

**STORAGE:** Store in original containers in cool, well-vented area, away from direct sunlight. Do not allow product to become overheated in storage. This may cause increased degradation of the product, which will decrease product effectiveness. In case of spill, flood area with large quantities of water.

**VENTILATION:** 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 protection.

#### 5. SPILL AND LEAK PROCEDURES

Always approach spills from upwind. Ventilate the space involved. Small spills may be flushed to an approved sewer line with generous amounts of water. Combustible materials exposed to hydrogen peroxide should be rinsed immediately with large amounts of water to ensure that all the hydrogen peroxide is removed. Residual hydrogen peroxide which is allowed to dry on organic materials such as paper, fabrics, cotton, leather, wood, or other combustibles can cause the material to ignite and result in a fire. Consult a regulatory specialist to determine appropriate state and local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

#### 6. HAZARDS IDENTIFICATION

- a) **FIRST AID: Have the product container with you when calling a poison control center or going for treatment**

**Colorless Liquid with sharp odor**

**EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes, Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing. Call a poison control center or physician for treatment advice.

**SKIN:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or physician for treatment advice.

**INHALATION:** Move person to fresh air. If person is not breathing call 911 or an ambulance, and then artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or physician for further treatment advice.

**INGESTION (If SWALLOWED):** Call a poison control center or physician immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center of physician. Do not give anything by mouth to an unconscious person.

**FIRST AID NOTES:** 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.

**b) PERSONAL PROTECTIVE EQUIPMENT:**

**EYES AND FACE:** Use cup type chemical goggles. Full face shield may be used.

**RESPIRATORY:** Use approved acid/gas cartridge or canister with full facepiece unless break-through occurs, then use airline supplied or self-contained breathing apparatus with full facepiece.

**PROTECTIVE CLOTHING:** Rubber or neoprene gloves and footwear. Rubber or neoprene 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.

## **7. FIRE FIGHTING MEASURES**

**FLAMMABLE LIMITS:** Not available

**EXTINGUISHING MEDIA:** Use water to keep fire exposed containers cool.

**FIRE FIGHTING PROCEDURES:** 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 personal protective equipment and positive pressure self-contained breathing apparatus.

**FIRE POINT-** No fire point. This material will not sustain a flame.

**SENSITIVITY TO STATIC DISCHARGE:** Not available.

**SENSITIVITY TO IMPACT:** Not available.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Oxygen that supports combustion, acetic acid, carbon monoxide, and carbon dioxide.

## 8. TOXICOLOGICAL INFORMATION

**EYE EFFECTS:** Severely irritating, corrosive

**SKIN EFFECTS:** Severely irritating, corrosive, PDII 6.4; not contact sensitizer for PERIDOX<sup>®</sup>.

**DERMAL LD<sub>50</sub>:** >5000mg/kg (male and female rats) for PERIDOX<sup>®</sup>.

**ORAL LD<sub>50</sub>:** 3129mg/kg (rats) for PERIDOX<sup>®</sup>.

**INHALATION LC<sub>50</sub>:** between 0.51mg/L and 2.08mg/L for PERIDOX<sup>®</sup>.

**TARGET ORGANS:** Eyes, skin, nose, throat, lungs

**ACUTE EFFECTS FROM OVEREXPOSURE:** No data available for this product. Liquid may cause severe burns and irreversible tissue damage to eyes. Inhalation of vapors causes lacrimation and irritation of the mucous membranes, eyes, and nasal passages.

**CHRONIC EFFECTS FROM OVEREXPOSURE:** No data available for this product. Product contains hydrogen peroxide. There are reports of limited evidence of carcinogenicity of hydrogen peroxide to mice administered high concentrations in their drinking water (IARC Monograph 36, 1985). The U.S. Federal Drug Administration has concluded that there is insufficient evidence of carcinogenicity and the International Agency for Research on Cancer (IARC) has concluded that this chemical is not classifiable as to its carcinogenicity to humans (Group 3).

**CARCINOGENICITY:**

| <u>Chemical Name</u> | <u>NTP Status</u> | <u>IARC Status</u> | <u>OSHA Status</u> | <u>Other</u>                         |
|----------------------|-------------------|--------------------|--------------------|--------------------------------------|
| Hydrogen Peroxide    | Not listed        | IARC Group3        | Not Listed         | ACGIH Listed (A3, Animal Carcinogen) |

**9. ECOLOGICAL INFORMATION**

**ECOTOXICOLOGICAL INFORMATION:** No data available for this product.

**CHEMICAL FATE INFORMATION:** No data available for this product. Hydrogen peroxide and peracetic acid are completely miscible with water. Aqueous solutions of peracetic acid hydrolyze to acetic acid and hydrogen peroxide. Aqueous solutions of hydrogen peroxide degrade to oxygen and water.

**10. TRANSPORT INFORMATION**

|                             |   |
|-----------------------------|---|
| DOT Name                    | HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE with acid(s), water, and not more than 5% peroxyacetic acid, STABILIZED |
| UN Number                   | UN 3149   |
| Dangerous Goods Class       | 5.1   |
| Sub Risk Class              | 8 (Corrosive)   |
| Packing Group               | II  |
| Transport Label(s) Required | OXIDIZER, CORROSIVE   |

**11. REGULATORY INFORMATION**

**UNITED STATES**

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

**SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40CFR355):** Peracetic Acid: RQ = 500 lbs; Hydrogen Peroxide: TPQ= 1,000 lbs, RQ =1,000 lbs.

**SECTION 302.4 REPORTABLE QUANTITY (40CFR 355)** The following is the ingredient that is listed:

| <u>Chemical Name</u> | <u>RQ</u> |
|----------------------|-----------|
| Peroxyacetic Acid    | 500 lbs.  |

**SECTION 311 HAZARD CATEGORY (40 CFR 370):** Fire Hazard, Immediate (Acute) Health Hazard

**SECTION 312 THRESHOLD PLANNING QUANTITY (40 CFR 370):** 500 lbs for Peroxyacetic Acid; 10,000 lbs for < 52% Hydrogen Peroxide

**SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372):** Listed

**CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT)**

**CERCLA REGULATORY (40 CFR 302.4):** Listed (Acetic Acid =5,000 lbs), Category D.

**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

**TSCA STATUS (40 CFR 710):** Listed

**RCRA STATUS:** Waste No.: D002 (corrosivity)

**CANADA**

**WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):**

Hazard Classification: Class E (Corrosive), Class C (Oxidizer).  
Ingredient Disclosure List: Listed

## 12. RATINGS:

| <b>HMIS® (Hazardous Materials Identification System)</b> |   | <b>NFPA® RATING</b> |    |
|--|---|---------------------|----|
| HEALTH:  | 3 | HEALTH              | 3  |
| FLAMMABILITY   | 0 | FLAMMABILITY        | 0  |
| PHYSICAL HAZARD  | 2 | REACTIVITY          | 2  |
| PERSONAL PROTECTION (PPE)                                | H | SPECIAL             | OX |

Key

4= Severe

3= Serious

2= Moderate

1= Slight

0= Minimal

HMIS RATINGS NOTES: Protection=H (Safety goggles, gloves, apron and a vapor respirator)

HMIS® is registered trademark of the National Paint and Coating Association. NFPA® is a registered trademark of the National Fire Protection Association.

The contents and format of this MSDS are in accordance with OSHA Hazard Communication Standard and Canada's Workplace Hazardous Materials Information System (WHMIS).

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#### For Internal Document Control

MSDS Approval: on file  
Signature

Approval Date: **08/08/09**

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Title