

# OSHA Safety Data Sheet (SDS)

## 1. Chemical Product and Supplier Identification

**Product Name:** Cool-Ox® *Cool-Ox® is a registered trademark of DeepEarth Technologies, Inc., all rights reserved.*  
**Chemical Name:** Oxidizer  
**Chemical Family:** Peroxygens  
**Trade Names:** Cool-Ox®  
**Formulator:** DeepEarth Technologies, Inc. **Toll free:** 1-877-Cool-Ox-1  
 8201 W. 183<sup>rd</sup> St., Suite C **Emergency:** 1-312-909-3667  
 Tinley Park, IL 60487 **1-850-206-3260**  
**MSDS Number:** PB-01  
**Issue Date:** April 1, 2014  
**Patented Product:** Formulation and use of this product is protected under USPTO Patent # 6,843,618.

## 2. Composition/Information on Ingredients

Components:	Compound	CAS Number
	Calcium Peroxide	1305-79-9
	EDTA	60-00-4
	DTPA	67-43-6
	EDDHA	1170-02-1
	Ammonium Phosphate	7783-28-0

## 3. Hazards Identification

**Emergency Overview:** Oxidizer - Contact with combustibles may under extreme circumstances, cause fire. In fire, material decomposes, releasing oxygen that may intensify the fire.

**Potential Health Effects:** Irritating to the mucous membrane and eyes. If product contacts eyes and face, treat eyes first. Submerge contaminated clothing in water prior to drying. Do not dry near open flame or heat source.

**Inhalation:** At high concentrations, slight nose and throat irritation with cough. In case of repeated or prolonged exposure, there is a risk of sore throat and nose bleeds.

**Eye contact:** Severe eye irritation with watering and redness. Risk of serious or permanent eye lesions.

**Skin contact:** In case of prolonged contact; irritation.

**Ingestion:** Irritation of the mouth and throat with nausea and vomiting.

## 4. First-Aid Measures

**Inhalation:** Remove the subject from dusty environment. Consult with a physician in case of respiratory symptoms.

**Eye contact:** Flush eyes with running water for 15 minutes, while keeping the eyelids wide open. Consult with ophthalmologist in all cases.

**Skin contact:** Wash the affected skin with running water. Remove and clean clothing. Consult with a physician in case of persistent pain or redness.

**Ingestion:** If the victim is conscious, rinse mouth and administer fresh water. **DO NOT induce vomiting.** Consult a physician in all cases.

**5. Fire-Fighting Measures**

<b>Flash point:</b>	Not applicable
<b>Flammability:</b>	Not applicable
<b>Auto-flammability:</b>	Not applicable
<b>Danger of explosion:</b>	Non-explosive
<b>Common extinguishing methods:</b>	Large quantities of water, water spray. In case of fire in close proximity, all means of extinguishing are acceptable.
<b>Inappropriate extinguishing methods:</b>	No restriction.
<b>Special precautions:</b>	Evacuate all non-essential personnel. Intervention only by capable personnel who are trained and aware of the hazards of the product. If safe to do so, remove unaffected product to a safe area.
<b>Specific hazards:</b>	Oxidizing substance. Oxygen released on exothermic decomposition may support combustion in case of surrounding fire. Pressure burst may occur due to decomposition in confined spaces/containers. Contact with flammables may cause fire or explosion.
<b>Fire fighting instructions:</b>	Personnel should wear full bunker gear and positive-pressure, self-contained breathing apparatus. Apply cooling water to sides of transport or storage vessels that are exposed to flames until fire is out. Do not approach hot vessels containing product.

**6. Accidental Release Measures**

<b>Precautions:</b>	Observe the protection measures given in Sections 5 and 8. Avoid materials and products which are incompatible with the product (see Section 10). Avoid direct contact of the product with water. Immediately notify the appropriate authorities in case of reportable discharge.
<b>Cleanup methods:</b>	Collect the product with a means suitable to avoid dust formation. All the receiving equipment should be clean, vented, dry, labeled and made of material that is compatible with the product. Because of the contamination risk, the collected material should be isolated in a safe place. Clean the area with large quantities of water. For disposal methods, refer to Section 13.

**7. Handling and Storage**

<b>Handling:</b>	Clean and dry process piping and equipment before any operation. Never return unused product to storage container. Keep away from incompatible products. Containers and equipment used to handle this product should be used exclusively for this material. Avoid any contact with water or humidity.
<b>Storage:</b>	Store in a dry area, protected from heat sources and direct sunlight.
<b>Other precautions:</b>	Warn personnel about the dangers of the product.

**8. Exposure Controls/Personal Protection**

**Engineering controls:** Provide ventilation in work areas to keep dust below the following applicable limits:

ACGIH™ TLV™ (1996)  
5 mg/m<sup>3</sup> TWA

OSHA PEL  
Total dust - 15 mg/m<sup>3</sup> TWA  
Respirable fraction - 5 mg/m<sup>3</sup> TWA

NIOSH REL (1994)  
5 mg/m<sup>3</sup> TWA

ACGIH™ and TLV™ are registered trademarks of the American Conference of Governmental Industrial Hygienists.

**Eye/face protection:** Dust proof chemical goggles.

**Hand protection:** Impervious protective gloves made of nitrile, natural rubber, or neoprene.

**Skin protection:** For brief contact, few precautions other than clean body-covering, clothing should be needed. When prolonged or frequently repeated contact could occur, use protective, full body clothing impervious to this material.

**Respiratory protection:** For many conditions, no respiratory protection may be needed; however, in dusty or unknown atmospheres use a NIOSH approved dust respirator.

**Other precautions:** Safety shower and eyewash stations. Consult your industrial hygienist or safety manager for the selection of personal protective equipment suitable for the working conditions.

**9. Physical and Chemical Properties**

**Appearance:** White to pale amber powder  
**Odor:** Odorless  
**pH:** 7 - 9 (saturated solution)  
**Melting Point:** 527 °F (275 °C) - Decomposes  
**Vapor Pressure:** Not applicable  
**Vapor Density:** Not applicable  
**Boiling point:** Not applicable  
**Bulk Density:** 0.5 - 0.65 g/mL (Loose Method)  
**Solubility in Water:** Moderate

**10. Stability and Reactivity**

**Chemical Stability:** Stable under certain conditions (see below).

**Conditions to avoid:** Heat and moisture

**Materials to avoid:** Water, Acids, Bases, Salts of heavy metals, Reducing agents, Organic materials, Flammable substances

**Hazardous decomposition products:** Oxygen, hydrogen peroxide, steam and heat.

**Hazardous polymerization:** Does not occur.

<b>11. Toxicological Information</b>	
<b>Acute toxicity:</b>	Oral route, LD <sub>50</sub> , rat, 7340 mg/kg
<b>Chronic toxicity:</b>	No data
<b>Irritation:</b>	Rabbit (eyes), severe irritant
<b>Sensitization:</b>	No data
<b>Target Organ Effects:</b>	Eyes and respiratory passages.
<b>12. Ecological Information</b>	
<b>Acute ecotoxicity:</b>	Fish, Cyprinus carpio, 48 hours, LC <sub>50</sub> , 25.6 mg/L
<b>Chronic ecotoxicity:</b>	No data
<b>Mobility:</b>	Low solubility and mobility.
<b>Abiotic degradation:</b>	Air - Not applicable Water - Slow hydrolysis Water/Soil - Complexation/precipitation Carbonates/phosphates present at environmental concentrations. Degradation products: carbonates/phosphates sparingly soluble.
<b>Biotic degradation:</b>	Not applicable
<b>Potential for bioaccumulation:</b>	Not applicable
<b>Comments:</b>	Observed effects are related to alkaline properties of the product. Hazard to the environment is limited due to the product properties a) No bioaccumulation. b) Weak solubility and precipitation as carbonate or phosphate in aquatic environment. c) rapid neutralization at environmental pH.
<b>13. Disposal Considerations</b>	
<b>Waste Disposal Method:</b>	Consult current federal, state and local regulations regarding the proper disposal of this material and its emptied containers.
<b>14. Transport Information</b>	
<b>D.O.T. Proper Shipping Name:</b>	Oxidizing substances, solid, n.o.s.
<b>UN Number:</b>	UN 1479
<b>Hazard Class:</b>	5.1
<b>Label(s):</b>	5.1 (Oxidizer)
<b>Packing Group:</b>	III
<b>STCC Number:</b>	4918717
<b>Emergency Response Guide #:</b>	140

**15. Regulatory Information**

**TSCA Inventory List:** Not Listed

**CERCLA Hazardous Substance (40 CFR Part 302)**

**Listed substance:** No  
**Unlisted substance:** Yes  
**Reportable Quantity (RQ):** Not Listed  
**Characteristic(s):** Ignitability  
**RCRA Waste Number:** D001

**Sara, Title III, Sections 302/303 (40 CFR Part 355- Emergency Planning and Notification)**

**Hazard category:** Eye and skin irritant  
**Threshold planning quantity:** Not Listed

**Sara, Title III, Sections 311/312 (40 CFR Part 370- Hazardous Chemical Reporting: Community Right-To-Know)**

**Extremely hazardous substance:** No  
**WHMIS Classification:** C Oxidizing Material  
 Material Causing Other Toxic Effects - Eye and skin irritant

**Canadian Domestic Substances List:** Listed, DSL/NDSL Record number - 3929

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

**16. Other Information****HMIS™ Rating:**

Health - 2      Flammability - 0      Reactivity - 1      PPE - Required

HMIS™ is a registered trademark of the National Paint and Coating Association.

**NFPA™ Rating:**

Health - 2      Flammability - 0      Reactivity - 1      OX

NFPA™ is a registered trademark of the National Fire Protection Association.

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