

Issue Date: 01-Jan-2011

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Version 1

## 1. IDENTIFICATION

**Product Identifier**

**Product Name** Cal Deox-O

**Other means of identification**

**SDS #** CPCI-027

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Cleaning agent.

**Details of the supplier of the safety data sheet**

**Supplier Address**

Cal Pac Chemicals, Inc  
6231 Maywood Ave  
Huntington Park, CA 90255

**Emergency Telephone Number**

**Company Phone Number** (323) 585-2178  
**Emergency Telephone (24 hr)** Chemtrec 1-800-424-9300 (North America) 1-703-527-3887 (International)

## 2. HAZARDS IDENTIFICATION

**Appearance** Gray to white granular powder

**Physical State** Solid

**Classification**

|                                   |             |
|-----------------------------------|-------------|
| Acute toxicity - Oral             | Category 4  |
| Serious eye damage/eye irritation | Category 1  |
| Carcinogenicity                   | Category 1B |

**Signal Word**

**Danger**

**Hazard Statements**

Harmful if swallowed  
Causes serious eye damage  
May cause cancer



**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product

**Precautionary Statements - Response**

If exposed or concerned: Get medical advice/attention  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a poison center or doctor/physician  
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
 Rinse mouth

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other Hazards**

Harmful to aquatic life with long lasting effects

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name    | CAS No     | Weight-% |
|------------------|------------|----------|
| Sodium bisulfate | 7681-38-1  | >50      |
| Ferric Sulfate   | 10028-22-5 | >20      |
| Sodium Nitrate   | 7631-99-4  | <10      |
| Ammonium Sulfate | 7783-20-2  | <10      |

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

### 4. FIRST-AID MEASURES

**First Aid Measures**

|                       |   |
|-----------------------|---|
| <b>General Advice</b> | If exposed or concerned: Get medical advice/attention.  |
| <b>Eye Contact</b>    | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice.   |
| <b>Skin Contact</b>   | Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing. Wash contaminated clothing before reuse. Get prompt medical attention.     |
| <b>Inhalation</b>     | Remove to fresh air. If not breathing, give artificial respiration. Call a physician.   |
| <b>Ingestion</b>      | Rinse mouth. Immediately drink large amounts of milk, water, or gelatin solution. Induce vomiting, but only if victim is fully conscious. Seek medical attention immediately. |

**Most important symptoms and effects**

|                 |   |
|-----------------|---|
| <b>Symptoms</b> | Prolonged contact may cause irreversible damage to eye. May cause irritation to the mucous membranes and upper respiratory tract. May cause nausea, vomiting, stomach ache, and diarrhea. |
|-----------------|---|

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Not a fire hazard. Use water fog.

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

Forms corrosive acidic solutions with water.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Use personal protective equipment as required. Forms an acidic solution when wet.

**Environmental Precautions** See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Clean-Up** Put collected waste material in plastic containers for disposal. Wash affected areas thoroughly. Neutralize with soda ash or lime if necessary to a specific pH. Dispose of in accordance with federal, state and local regulations.

**7. HANDLING AND STORAGE****Precautions for safe handling**

**Advice on Safe Handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protection recommended in Section 8. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. Store away from food stuffs.

**Incompatible Materials** Strong alkalis. Chlorinated products. May release hydrogen gas if allowed to contact copper, brass, iron, or heavy metals in liquid state.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Exposure Guidelines**

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---------------|-----------|----------|------------|
|---------------|-----------|----------|------------|

|                              |  |                                       |                             |
|------------------------------|--|---------------------------------------|-----------------------------|
| Ferric Sulfate<br>10028-22-5 | TWA: 1 mg/m <sup>3</sup> Fe TWA: 0.1<br>mg/m <sup>3</sup> Persulfate | (vacated) TWA: 1 mg/m <sup>3</sup> Fe | TWA: 1 mg/m <sup>3</sup> Fe |
|------------------------------|--|---------------------------------------|-----------------------------|

**Appropriate engineering controls**

**Engineering Controls** Apply technical measures to comply with the occupational exposure limits. Eyewash stations.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Wear safety glasses with side shields (or goggles).

**Skin and Body Protection** Rubber or acid resistant gloves. Wear suitable protective clothing to prevent contact with skin.

**Respiratory Protection** NIOSH-approved acid cartridge respirator in areas of high mist or fume concentration.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

|                       |                               |                       |                |
|-----------------------|-------------------------------|-----------------------|----------------|
| <b>Physical State</b> | Solid                         | <b>Odor</b>           | Not determined |
| <b>Appearance</b>     | Gray to white granular powder | <b>Odor Threshold</b> | Not determined |
| <b>Color</b>          | Gray to white                 |                       |                |

| <b><u>Property</u></b>              | <b><u>Values</u></b>   | <b><u>Remarks • Method</u></b> |
|-------------------------------------|------------------------|--------------------------------|
| <b>pH</b>                           | >1.2                   | (1% solution)                  |
| <b>Melting Point/Freezing Point</b> | Not available          |                                |
| <b>Boiling Point/Boiling Range</b>  | Not applicable         |                                |
| <b>Flash Point</b>                  | Not combustible        |                                |
| <b>Evaporation Rate</b>             | Not available          |                                |
| <b>Flammability (Solid, Gas)</b>    | Not combustible        |                                |
| <b>Upper Flammability Limits</b>    | Not applicable         |                                |
| <b>Lower Flammability Limit</b>     | Not applicable         |                                |
| <b>Vapor Pressure</b>               | Not applicable         |                                |
| <b>Vapor Density</b>                | Not applicable         |                                |
| <b>Specific Gravity</b>             | Not determined         |                                |
| <b>Water Solubility</b>             | Completely soluble     |                                |
| <b>Solubility in other solvents</b> | Not determined         |                                |
| <b>Partition Coefficient</b>        | Not determined         |                                |
| <b>Auto-ignition Temperature</b>    | Not applicable         |                                |
| <b>Decomposition Temperature</b>    | Not determined         |                                |
| <b>Kinematic Viscosity</b>          | Not determined         |                                |
| <b>Dynamic Viscosity</b>            | Not determined         |                                |
| <b>Explosive Properties</b>         | Not determined         |                                |
| <b>Oxidizing Properties</b>         | Not determined         |                                |
| <b>Density</b>                      | 63 lbs/ft <sup>3</sup> |                                |

## 10. STABILITY AND REACTIVITY

**Reactivity**

Not reactive under normal conditions.

**Chemical Stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

Mixing with chlorinated products may release irritating or toxic gases.

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Conditions to Avoid**

Keep out of reach of children.

**Incompatible Materials**

Strong alkalis. Chlorinated products. May release hydrogen gas if allowed to contact copper, brass, iron, or heavy metals in liquid state.

**Hazardous Decomposition Products**

Hydrogen gas.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

**Eye Contact** Causes serious eye damage.

**Skin Contact** Avoid contact with skin.

**Inhalation** Avoid inhalation of dust.

**Ingestion** Harmful if swallowed.

**Component Information**

| Chemical Name                 | Oral LD50            | Dermal LD50 | Inhalation LC50 |
|-------------------------------|----------------------|-------------|-----------------|
| Sodium bisulfate<br>7681-38-1 | = 2490 mg/kg ( Rat ) | -           | -               |
| Ferric Sulfate<br>10028-22-5  | = 500 mg/kg ( Rat )  | -           | -               |
| Sodium Nitrate<br>7631-99-4   | = 1267 mg/kg ( Rat ) | -           | -               |
| Ammonium Sulfate<br>7783-20-2 | = 2000 mg/kg ( Rat ) | -           | -               |

**Information on physical, chemical and toxicological effects**

**Symptoms** Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Carcinogenicity** Nitrate or nitrite (ingested) under conditions that result in endogenous nitrosation are considered IARC group 2A carcinogens.

| Chemical Name               | ACGIH | IARC     | NTP | OSHA |
|-----------------------------|-------|----------|-----|------|
| Sodium Nitrate<br>7631-99-4 |       | Group 2A |     | X    |

**Legend**

**IARC (International Agency for Research on Cancer)**

Group 2A - Probably Carcinogenic to Humans

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**Numerical measures of toxicity**

Not determined

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Harmful to aquatic life with long lasting effects.

| Chemical Name                 | Algae/aquatic plants | Fish  | Toxicity to microorganisms | Crustacea  |
|-------------------------------|----------------------|---|----------------------------|--|
| Sodium bisulfate<br>7681-38-1 |                      |   |                            | 190: 48 h Daphnia magna<br>mg/L EC50                                     |
| Sodium Nitrate<br>7631-99-4   |                      | 2000: 96 h Lepomis<br>macrochirus mg/L LC50<br>static 994.4 - 1107: 96 h<br>Oncorhynchus mykiss mg/L<br>LC50 static   |                            |  |
| Ammonium Sulfate<br>7783-20-2 |                      | 460 - 1000: 96 h Leuciscus<br>idus mg/L LC50 static 250:<br>96 h Brachydanio rerio mg/L<br>LC50 480: 96 h Brachydanio<br>rerio mg/L LC50 flow-through<br>420: 96 h Brachydanio rerio<br>mg/L LC50 semi-static 18:<br>96 h Cyprinus carpio mg/L<br>LC50 100: 96 h Pimephales<br>promelas mg/L LC50 32.2 -<br>41.9: 96 h Oncorhynchus<br>mykiss mg/L LC50 flow-<br>through 5.2 - 8.2: 96 h<br>Oncorhynchus mykiss mg/L<br>LC50 static 123 - 128: 96 h<br>Poecilia reticulata mg/L<br>LC50 semi-static 126: 96 h<br>Poecilia reticulata mg/L<br>LC50 |                            | 423: 24 h Daphnia magna<br>mg/L EC50 14: 48 h Daphnia<br>magna mg/L LC50 |

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

| Chemical Name                 | Partition Coefficient |
|-------------------------------|-----------------------|
| Sodium Nitrate<br>7631-99-4   | -3.8                  |
| Ammonium Sulfate<br>7783-20-2 | -5.1                  |

**Other Adverse Effects**

Not determined

**13. DISPOSAL CONSIDERATIONS****Waste Treatment Methods**

|                               |   |
|-------------------------------|---|
| <b>Disposal of Wastes</b>     | Disposal should be in accordance with applicable regional, national and local laws and regulations. |
| <b>Contaminated Packaging</b> | Disposal should be in accordance with applicable regional, national and local laws and regulations. |

**California Hazardous Waste Status**

| Chemical Name               | California Hazardous Waste Status |
|-----------------------------|-----------------------------------|
| Sodium Nitrate<br>7631-99-4 | Toxic<br>Ignitable<br>Reactive    |

**14. TRANSPORT INFORMATION**

**Note** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT**

|                             |  |
|-----------------------------|--|
| <b>UN/ID No</b>             | UN3084   |
| <b>Proper Shipping Name</b> | Corrosive solid oxidizing N.O.S. (Sodium bisulfate & Sodium Nitrite) |
| <b>Hazard Class</b>         | 8 (5.1)  |
| <b>Packing Group</b>        | II   |

**IATA**

|                             |  |
|-----------------------------|--|
| <b>UN/ID No</b>             | UN3084   |
| <b>Proper Shipping Name</b> | Corrosive solid oxidizing N.O.S. (Sodium bisulfate & Sodium Nitrite) |
| <b>Hazard Class</b>         | 8 (5.1)  |
| <b>Packing Group</b>        | II   |

**IMDG**

|                             |  |
|-----------------------------|--|
| <b>UN/ID No</b>             | UN3084   |
| <b>Proper Shipping Name</b> | Corrosive solid oxidizing N.O.S. (Sodium bisulfate & Sodium Nitrite) |
| <b>Hazard Class</b>         | 8 (5.1)  |
| <b>Packing Group</b>        | II   |
| <b>Marine Pollutant</b>     | This material may meet the definition of a marine pollutant          |

**15. REGULATORY INFORMATION**

**International Inventories**

Not determined

**US Federal Regulations**

**CERCLA**

| Chemical Name                | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ)                  |
|------------------------------|--------------------------|----------------|---|
| Ferric Sulfate<br>10028-22-5 | 1000 lb                  |                | RQ 1000 lb final RQ<br>RQ 454 kg final RQ |

**SARA 313**

| Chemical Name                | CAS No    | Weight-% | SARA 313 - Threshold Values % |
|------------------------------|-----------|----------|-------------------------------|
| Sodium Nitrate - 7631-99-4   | 7631-99-4 | <10      | 1.0                           |
| Ammonium Sulfate - 7783-20-2 | 7783-20-2 | <10      | 1.0                           |

**CWA (Clean Water Act)**

| Component                          | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|------------------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Ferric Sulfate<br>10028-22-5 (>20) | 1000 lb                     |                        |                           | X                          |

**US State Regulations****U.S. State Right-to-Know Regulations**

| Chemical Name                 | New Jersey | Massachusetts | Pennsylvania |
|-------------------------------|------------|---------------|--------------|
| Ferric Sulfate<br>10028-22-5  | X          | X             | X            |
| Sodium Nitrate<br>7631-99-4   | X          | X             | X            |
| Ammonium Sulfate<br>7783-20-2 |            | X             | X            |

**16. OTHER INFORMATION**

|                    |                       |                     |                         |                            |
|--------------------|-----------------------|---------------------|-------------------------|----------------------------|
| <b><u>NFPA</u></b> | <b>Health Hazards</b> | <b>Flammability</b> | <b>Instability</b>      | <b>Special Hazards</b>     |
|                    | 2                     | 0                   | 0                       | COR                        |
| <b><u>HMIS</u></b> | <b>Health Hazards</b> | <b>Flammability</b> | <b>Physical Hazards</b> | <b>Personal Protection</b> |
|                    | Not determined        | Not determined      | Not determined          | Not determined             |

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**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**