



## MATERIAL SAFETY DATA SHEET

### Bio-Fresh cd

#### I - PRODUCT IDENTIFICATION

**Company Name:** Nu-Calgon Wholesaler, Inc.  
**Address:** 2008 Altom Court, St. Louis, MO 63146-4151  
**Product Name:** Bio-Fresh cd  
**Synonyms:** Bacteristat-Fungistat  
EPA Registration No. 9804-3-65516  
EPA Establishment No. 9804-OK-1

**Tel No:** (314) 469-7000, (800) 554-5499  
**CHEMTREC:** (800) 424-9300  
**Product Number:** 4126-34

#### II - HAZARDOUS INGREDIENTS OF MIXTURES

<u>MATERIAL</u>	<u>CAS#</u>	<u>% By Wt</u>	<u>TLV</u>	<u>PEL</u>
Sodium Chlorite	7758--19-2	0.17	N/E	N/E

All ingredients are TSCA listed.

#### III - PHYSICAL DATA

**Vapor Pressure:** 23.7 mm Hg (@25 ° C)  
**Evaporation Rate:** Comparable to water  
**Solubility in H<sub>2</sub>O:** complete  
**Freezing Point °F:** N/A  
**Boiling Point °F:** 213oF  
**Specific Gravity H<sub>2</sub>O=1 @25° C:** 1.03

**Vapor Density (Air=1) 60-90° F:** .02 Kg/m3  
**VOC Content (% by wt.):** <0.01%  
**pH @ N/A Solution:** N/A  
**pH as Distributed:** 7.5-9.0  
**Appearance:** Clear liquid  
**Odor:** Faint chlorinous odor

#### IV - FIRE AND EXPLOSION

**Flash Point F:** None to boiling point **Flammable Limits:** N/AN/A  
**Extinguishing Media:** Water unless contraindicated by other material involved in fire. Wear standard protective gear with self-contained breathing apparatus.  
**Special Fire Fighting Procedures:** Do not allow product solutions to evaporate to dryness. If chlorine dioxide gas is produced, vent to atmosphere. Open or vent any large containers.  
**Unusual Fire and Explosion Hazards:** The sodium chlorite in dried Bio-fresh cd is a strong oxidizer, which supports combustion.

#### V - REACTIVITY DATA

**Stability - Conditions to avoid:** Product is stable - Avoid storing product under conditions in which it could evaporate to crystalline salt.  
**Incompatibility:** Avoid accidental contact with acids, chlorine compounds, hypochlorites (bleach), sulfur and sulfites compounds, phosphorous, organic solvents and combustible/flammable materials.  
**Hazardous Decomposition Products:** Exposure to acids or chlorine compounds can produce chlorine dioxide gas.  
**Conditions Contributing to Hazardous Polymerizations:** Does not occur.

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## VI - HEALTH HAZARD DATA

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### **EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),**

**A. ACUTE (Primary Route of Exposure)** INGESTION: Rat oral LD50>5,000 mg/Kg. May produce gastric discomfort, nausea, vomiting and diarrhea. Ingestion of large quantities may produce methemoglobinemia. EYES: Based upon rabbit studies, product has an EPA Category IV rating as a mild irritant with minimal effects. Exposure can produce slight irritation of conjunctiva, cornea and eyelid. SKIN: Dermal LD50>5,000 mg/Kg (rabbit) Based upon rabbit studies, product is listed as 'practically not an irritant'. Prolonged exposure may produce localized irritation, contact dermatitis, mild erythema and edema. INHALATION: Product normally has no respiratory effects. If exposure to chlorine dioxide produced from activation occurs, remove victim to fresh air. Consult a physician if respiratory distress continues. Acute Inhalation: LC 50> 5.61 mg/L.

**B. SUBCHRONIC, CHRONIC, OTHER :** May cause localized irritation to areas exposed to product.

**C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE :** Skin disorders, such as dermal allergies and dermatitis.

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## VII - EMERGENCY AND FIRST AID PROCEDURES

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**INHALATION:** Move person to fresh air. If person is not breathing, call 011 or an ambulance, and then give artificial respiration, preferably mouth to mouth. Call a poison control center or doctor for further treatment advice.

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

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

**INGESTION:** Call a poison control center or doctor 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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**NOTE TO PHYSICIAN:** chlorine dioxide vapors are emitted when this product contacts acids or chlorine. If these vapors are inhaled, monitor patient closely for delayed development of pulmonary edema which may occur up to 48-72 hours post inhalation.

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## VIII - SPILL OR LEAK PROCEDURE

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**Spill Management:** Small spills, involving less than 10 gallons, may be flushed to a designated and permitted sewer system with the amount of water that is about 10 times the amount of the spill. Do not discharge this product to storm drains or to any surface or groundwater source unless specifically allowed under a valid NPDES permit. All spills and leaks involving more than 10 gallons should be reported to the nearest regional EPA office or designated state emergency response office within 24 hours. Spills from ocean vessels or which contaminate US coastal waterways should be reported to the nearest Coast Guard office within 24 hours.

**Waste Disposal Methods :** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Wrap empty container in newspaper and discard in trash. Small quantities, less than 10 gallons, may be flushed to an authorized and permitted sewer with copious amounts of water. Large quantities should be taken to an authorized disposal site.

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## IX - PROTECTION INFORMATION/CONTROL MEASURES

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**Respiratory:** None required.

**Eye Protection:** Good practice recommends the use of chemical safety goggles for all applications..

**Glove:** Good practice recommends that, at a minimum, rubber neoprene or other chemically impervious gloves be worn for all applications.

**Other Clothing and Equipment :** Follow label instructions.

**Ventilation:** Open air or good room ventilation is normally adequate for safe use of the product.

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## X - SPECIAL PRECAUTIONS

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**Precautions to be taken in Handling and Storing :** Store in a cool, dry, well-ventilated location in original container away from acids, chlorine compounds (bleach), oxidizers and direct sunlight. Keep containers tightly closed when not in use and open carefully to prevent spillage. Do not re-use container.

**Additional Information :** Use product only as directed by the label. Avoid contact with skin and eyes; avoid breathing any vapors or fume resulting from product activation. Wash thoroughly after handling. Thoroughly rinse all protective gear and handling equipment, such as transfer pumps and lines, with water prior to re-use or storage. Keep away from children, animals and unauthorized personnel.

**NFPA**

**Health Hazard.....: 1**

**Fire Hazard.....: 0**

**Reactivity.....: 1**

**Specific Hazard....:**

**HMIS RATING**

**Health Hazard.....: 1**

**Fire Hazard.....: 0**

**Reactivity.....: 1**

**Personal Protection....: X (Sec. 9)**

**Revision Date: 07/18/2004**

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