Material Safety Data Sheet

CHEMICAL PRODUCT and COMPANY IDENTIFICATION

Product: **Ultra-Fresh** DW-30
Chemical Family: Imidazole & Pyrithione **Chemical Formula**: Mixture
Product Use: Antimicrobial treatment for manufactured articles
Supplier: Thomson Research Associates Inc,
49 Gervais Drive
Toronto, Ontario, Canada, M3C 1Y9
Telephone: (416) 955-1881

PHYSICAL DATA

Physical State: Finely divided suspension
Odour: Faint
Colour: Off-white to brown
Melting Point (C): N/E
Vapour Pressure (mm Hg): N/E
Evaporation Rate (Butyl Acetate = 1): <1
Viscosity: N/E
Octanol/Water Coefficient: N/A
Appearance: Opaque
Odour Threshold: N/E
pH (20 C): N/A
Boiling Point (C): N/E
Vapour Density (Air = 1): >1
VOC (ASTM Method D2369-93): 4
Solubility in Water: Insoluble
Specific Gravity: 1.1 – 1.4

FIRE & EXPLOSION

This Product Is Rated As: Non-Flammable
Flash Point (C): >192 **Flash Point Test** Method: Estimated
LEL (% by Volume): N/E **UEL (% by Volume):** N/E
Autoignition Temperature (C): N/E
Extinguishing Media:
Water spray or fog, sand, dry chemical, foam or carbon dioxide.
Special Fire Fighting Instructions:
Avoid breathing fumes. Contain runoff.
Unusual Hazards:
None
Hazardous Combustion Products:
Includes oxides of carbon, nitrogen and sulfur.
PPE For Fire Fighting:
Wear self-contained breathing apparatus and full protective gear.

REACTIVITY

Product Stability:
Stable under normal temperatures and pressures.
Hazardous Polymerization:
Will not occur

Conditions to Avoid:
Prolonged storage above 54C / 130F
Product Incompatible With:
Oxidizers and strong acids and bases
Hazardous Decomposition Products:
Oxides of carbon, nitrogen and sulfur.

TOXICOLOGICAL PROPERTIES

Primary Routes of Exposure: Inhalation, skin contact
Inhalation:
Overexposure may result in discomfort and irritation of the respiratory tract
Contact With Eyes:
Moderately irritating to the eyes, may cause damage.
Contact With Skin:
May cause irritation of the skin.
Ingestion:
May be harmful if swallowed. May cause stomach upset, nausea, vomiting, lethargy and diarrhea.
Chronic Health Effects:
Skeletal muscle atrophy and peripheral nerve damage characterized by general muscle weakness have been reported in some chronic animal studies for Zinc Omadine. These effects have not been observed in primates, which suggests that hind limb effects would not occur in humans.
Carcinogenicity: Animal testing has shown that at high doses (greater than 10 mg/kg/d), Thiabendazole may cause thyroid tumors.
Mutagenicity: Not mutagenic
Teratogenicity: Not teratogenic
Corrosiveness To Skin (Test Species): Not irritating
Corrosiveness to Eyes (Test Species): Irritating (Rabbit)
This Product Is: Nor sensitizing
Acute Oral LD50 (mg/kg): 1534 **Species**: Rat
Acute Dermal LD50 (mg/kg): N/E **Species**: N/A

FIRST AID

In Case of Eye Contact:
Immediately flush eyes with copious amounts of water for at least 15 minutes while holding eyelids wide apart. If discomfort persists seek medical attention.
In Case of Skin Contact:
Remove contaminated clothing immediately. Wash affected area with mild soap and water. If irritation persists seek medical attention. Wash contaminated clothing and equipment before reuse.
In Case of Inhalation:
Move subject to fresh air. If discomfort persists seek medical attention.

In Case of Ingestion:
If conscious have subject drink one glass of water. Never give anything to an unconscious or convulsing person. Do NOT induce vomiting. Seek immediate medical attention.

Note To Physician:
Treat according to symptoms, no known specific antidote.

HANDLING, STORAGE and TRANSPORTATION

In Case of Spillage:
For small spills, absorb with sand, clay or other inert absorbent and place in clean, dry container for disposal. Large spills should be diked to prevent spreading. Pump spilled material to containers for salvage or disposal. Absorb the residual material as for small spills. Clean the spill area with detergent and water. This product is toxic to fish. Keep discharge from entering sewers, lakes, streams, ponds, estuaries or public water sources. Dispose of in accordance to regulations.

Disposal of Product:
Dispose of in accordance to regulations.

Disposal of Container:
Triple rinse empty container. Then offer for recycling or reconditioning or puncture and dispose of in approved landfill.

Storage:
Store in cool, dry place in original container. Avoid contaminating water, food or feed by storage or disposal.

Engineering Controls:
Use mechanical local exhaust at point of vapor or mist release. Ensure that existing ventilation is sufficient to prevent creating a hazardous atmosphere.

Personal Protective Equipment (PPE)

Respiratory Protection:
Where adequate ventilation is not available, use NIOSH-approved respirator with organic vapor filter. Where exposure potential under use conditions is greater use NIOSH-approved positive pressure air-supplied respirator.

Eye Protection:
Chemical goggles or full face shield. Do not wear contact lenses.

Hand Protection:
Chemical resistant rubber, neoprene or nitrile gloves

Additional Protective Equipment:
Emergency eye wash station and emergency shower should be readily available.

Transportation

Shipping Name: Environmentally Hazardous Substance, Liquid, NOS, (Thiabendazole)
UN Number: 3082 **Class**: 9 **Packing Group**: III **Marine Pollutant**: Yes
Signal Word: Caution ***HMIS Rating*** Fire 1 Health 2 Reactivity 0

INGREDIENTS

2-(4-Thiazolyl)-1H-benzimidazole **Concentration (%wt/wt):** 15
CAS No: 148-79-8 **EINECS No**: 205-725-8 **UN No**: 3077
LD_{50}(mg/kg): 3100 **Route**: Oral **Species**: Rat **TWA**: 10 mg/m^3 **STEL**: N/E

Bis(1-hydroxy-2(1H)-pyridinethionato-O,S)-(T-4) zinc **Concentration (%wt/wt):** 15
CAS No: 13463-41-7 **EINECS No**: 236-671-3 **UN No:** 2811
LD_{50} (mg/kg): >1000 **Route**: Oral **Species**: Monkey **TWA**: 0.35 mg/m^3 **STEL**: N/E

PREPARATION INFORMATION

Document Prepared By: Regulatory Affairs Department,
Thomson Research Associates Inc.,
Toronto, Canada.
Telephone: (416) 955-1881

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N/A = Not Applicable N/E = Not Established N/R = Not Regulated ai = Active Ingredient