

# MATERIAL SAFETY DATA SHEET

## MICRO D<sup>®</sup> 1000

|  |                                  |
|--|----------------------------------|
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| <b>Revision No.:</b> 03 - Nov. 4, 2014 | <b>Review Date:</b> Nov. 4, 2016 |

### 1.0 IDENTIFICATION OF MATERIAL:

|                            |   |
|----------------------------|---|
| <b>Name of Composition</b> | MICRO D-1000; CHOLECALCIFEROL; ACTIVATED 7-DEHYDROCHOLESTEROL |
| <b>Chemical Family</b>     | Sterol  |
| <b>Molecular Formula</b>   | C <sub>27</sub> H <sub>44</sub> O                             |

### 2.0 SIGNIFICANT COMPONENTS AND CONTAMINANTS:

| CAS NO.   | COMPONENT  | CONCENTRATION   | PERMISSIBLE EXPOSURE LIMIT | SHORT TERM EXPOSURE LIMIT | RTECS NUMBER |
|-----------|--|-----------------|----------------------------|---------------------------|--------------|
| 67-97-0   | Cholecalciferol (Activated 7-dehydrocholesterol) | 1,000,000 IU/gm |                            | LD <sub>50</sub> >30 g/kg | VS 2900000   |
| 128370    | BHT (Butylated hydroxy toluene)                  | 2-3%            | (TWA) 10 g/M <sup>3</sup>  |                           | GO 78750     |
|           | Non GMO Vegetable Oil                            |                 | Non-Toxic                  |                           |              |
|           | Water  |                 | Non-Toxic                  |                           |              |
|           | Modified Edible Starch                           |                 | Non-Toxic                  |                           |              |
| 1338-41-6 | Sorbitan Monostearate, ethoxylated               | 0.5-0.8%        | Non-Toxic                  | LD <sub>50</sub> >20 g/kg | Wg2933500    |

### 3.0 PHYSICAL DATA:

| Typical Characteristics                     | Boiling Point       | Specific Gravity (Water = 1) |
|---|---------------------|------------------------------|
| Light tan, dry, free flowing, flaked solid. | N/A                 | 0.50 g/mL                    |
| Vapor Pressure (mm of Hg)                   | Freezing Point      | pH                           |
| N/A   | N/A                 | N/A                          |
| Vapor Density (Air = 1)                     | Solubility in Water |                              |
| N/A   | ca. 85% soluble     |                              |

### 4.0 FIRE AND EXPLOSION HAZARD DATA:

| FLASH POINT | FLAMMABLE (EXPLOSIVE) LIMITS (PERCENT BY VOLUME) |                       |
|-------------|--|-----------------------|
|             | LOWER EXPLOSIVE LIMIT                            | UPPER EXPLOSIVE LIMIT |
| N/A         | N/A  | N/A                   |

**FIRE EXTINGUISHING MEDIA:** N/A

**SPECIAL FIRE FIGHTING PROCEDURE:** N/A

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** None.

### 5.0 HEALTH HAZARD DATA:

| EFFECTS OF OVEREXPOSURE | ACUTE          | Toxic only by massive ingestion; no reliable limits established. |
|-------------------------|----------------|--|
|                         | <b>CHRONIC</b> | Toxic only by prolonged ingestion of > 50,000 IU/day             |

**EMERGENCY AND FIRST AID PROCEDURES:** Seek medical attention.

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### 6.0 REACTIVITY DATA:

|  |   |
|--|---|
| <b>GENERAL REACTIVITY:</b>                   | Unreactive; decomposition to inactive products exacerbated by heat and light. |
| <b>INCOMPATIBILITY (MATERIALS TO AVOID):</b> | None.   |
| <b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>     | None  |
| <b>HAZARDOUS POLYMERIZATION:</b>             | Does not polymerize.  |
| <b>CONDITIONS TO AVOID:</b>                  | Prolonged exposure to extremes of heat and light.                             |

### 7.0 SPILL PROCEDURES/DISPOSAL REQUIREMENTS:

|   |   |
|---|---|
| <b>STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:</b> | Vacuum spilled material; transfer to heavy paper bag.               |
| <b>WASTE DISPOSAL METHOD:</b>                                     | Bury in approved landfill or incinerate. Product is biodegradable.. |
| <b>CONTAINER DISPOSAL:</b>  | Bury in approved landfill or incinerate. Product is biodegradable.  |

### 8.0 SPECIAL PROTECTION INFORMATION:

|                        |  |
|------------------------|--|
| <b>EYE PROTECTION:</b> | No special requirements.   |
| <b>GLOVES:</b>         | No special requirements.   |
| <b>RESPIRATORY:</b>    | Avoid breathing dust; wear disposable filter mask when handling. |
| <b>VENTILATION:</b>    | No special requirements.   |

### 9.0 SPECIAL PRECAUTIONS:

|                                  |  |
|----------------------------------|--|
| <b>STORAGE REQUIREMENTS:</b>     | Store in cool, dry location in sealed plastic bags in cardboard boxes. |
| <b>MATERIAL OF CONSTRUCTION:</b> | Cardboard boxes with poly liners.                                      |
| <b>LABELING:</b>                 | No special labeling required.  |

### 10.0 SHIPPING REGULATIONS (D.O.T. NOMENCLATURE):

|                              |  |                                 |
|------------------------------|--|---------------------------------|
| <b>Proper Shipping Name:</b> | Generally regarded as safe (GRAS 21CFR 582.5953) - does not fall under D.O.T. regulations. |                                 |
| <b>Hazard Class</b>          | <b>Type of Packaging</b>   | <b>Label</b>                    |
| N/A                          | N/A  | N/A                             |
| <b>Placard</b>               | <b>Marking</b>   | <b>Exemptions</b>               |
| N/A                          | N/A  | Exempt from D.O.T. regulations. |

### 11.0 NOTES:

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