**MATERIAL SAFETY DATA SHEET**

**SECTION 1 - NAME AND PRODUCT**

**MANUFACTURER NAME AND ADDRESS**
DIFCO LABORATORIES
P O BOX 331066
DETROIT MI 48222
EMERGENCY PHONE 800-521-0851

**COMMON NAME (ON LABEL)**
BACTROL DISKS

**TRADE NAME & SYNONYMS**
BACTROL DISKS

**CHEMICAL NUMBER**: D1666-352
**ITEM NUMBER**: 0422508
**VNDR CATLG NBR**: NOT GIVEN
**ENTRY DATE**: 08-16-91
**CHANGE DATE**: 08-26-91
**PD NUMBER**: UNE50389

**CHEMICAL FAMILY**: NOT GIVEN

**CHEMICAL FORMULA**: NOT GIVEN

**SECTION 2 - HAZARDOUS INGREDIENTS**

<table>
<thead>
<tr>
<th>HAZARDOUS COMPONENT</th>
<th>CAS</th>
<th>% (WT)</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>See other ingredient information</td>
<td>*</td>
<td>.00</td>
<td>NOT GIVEN</td>
<td>NOT GIVEN</td>
</tr>
</tbody>
</table>

**PEL**: Permissible Exposure Limit established by the Occupational Safety and Health Administration (OSHA).
**TLV**: Threshold Limit Value established by the American Conference of Governmental Industrial Hygienists, 1986-87.

**OTHER INGREDIENT INFORMATION**
BACTROL DISKS ARE NOT HAZARDOUS AS DEFINED BY OSHA 1910.1200. HOWEVER, AS LIVE MICROORGANISMS THEY ARE BIOHAZARDS. THEREFORE, OBSERVE INSTRUCTIONS IN SECTIONS 7 AND 9.

**SECTION 3 - PHYSICAL DATA**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOILING POINT</td>
<td>N/A</td>
</tr>
<tr>
<td>VOLATILE BY VOLUME (%)</td>
<td>N/A</td>
</tr>
<tr>
<td>MELTING POINT</td>
<td>N/A</td>
</tr>
<tr>
<td>VAPOR DENSITY</td>
<td>N/A</td>
</tr>
<tr>
<td>EVAPORATION RATE ( = 1)</td>
<td>SPECIFIC GRAVITY</td>
</tr>
<tr>
<td>APPEARANCE AND ODOR</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**OTHER PHYSICAL DATA**
NO OTHER PHYSICAL DATA GIVEN.
### SECTION 4 - FIRE AND EXPLOSION DATA

<table>
<thead>
<tr>
<th>Flash Point</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Explosive Limit</td>
<td>Upper Explosive Limit</td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Extinguishing Media</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### UNUSUAL FIRE AND EXPLOSION HAZARDS
N/A

### SPECIAL FIRE FIGHTING PROCEDURES
N/A

### SECTION 5 - HEALTH HAZARD DATA

#### Health Hazards (Acute & Chronic)
See signs and symptoms of overexposure.

#### Primary Routes of Exposure
Inhalation, Ingestion, Absorption

#### Signs and Symptoms of Exposure
Potential for infection if used with improper technique. See section 10 - special precautions.
SECTION 5 - HEALTH HAZARD DATA (CONTINUED)

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
NONE INDICATED.

CARCINOGENICITY
NOT INDICATED.

EMERGENCY AND FIRST AID PROCEDURES
CALL A PHYSICIAN IN THE EVENT OF INHALATION, INGESTION, OR ABSORPTION.

THRESHOLD LIMITS / TOXICITY DATA
TLV: N/A, PEL: N/A.

SECTION 6 - REACTIVITY DATA

STABILITY
Unstable □ Stable □

CONDITIONS TO AVOID
N/A

INCOMPATIBILITY (MATERIALS TO AVOID)
N/A
SECTION 6 - REACTIVITY DATA (CONTINUED)

HAZARDOUS DECOMPOSITION OR BYPRODUCTS
N/A

HAZARDOUS POLYMERIZATION
May Occur □ Will Not Occur □
N/A

CONDITIONS TO AVOID

SECTION 7 - SPILL, LEAK, AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
1. Obtain a suitable bactericidal solution such as 70-90% isopropyl alcohol
2. 1-2% phenol quaternary compound or a liquid chlorine laundry bleach.
3. Remove unbroken vials with forceps and wash their surfaces with the above bactericidal solution. Unbroken vials may be retained for future use.
4. Collect exposed disks and contaminated packaging in a suitable container and follow "waste disposal methods.
5. Wash all exposed surfaces with the above bactericidal solution.

WASTE DISPOSAL METHOD
Autoclave for 30 minutes at 15 pounds pressure (121 deg. C), thoroughly incinerate, or submerge exposed disks in a liquid chlorine laundry bleach for 30 minutes.

SECTION 8 - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION
N/A

LOCAL VENTILATION
N/A

MECHANICAL VENTILATION
N/A

SPECIAL VENTILATION
N/A
SECTION 8 - SPECIAL PROTECTION INFORMATION (CONTINUED)

OTHER VENTILATION
N/A

PROTECTIVE GLOVES
N/A

EYE PROTECTION
N/A

OTHER PROTECTIVE CLOTHING OR EQUIPMENT
N/A

SECTION 9 - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE
BACTROL DISKS CONTAIN VIABLE MICROORGANISMS AND SHOULD BE USED ONLY IN
LABORATORIES BY MICROBIOLOGISTS OR PERSONS UNDER THE SUPERVISION OF A MICROBIOLOGIST,
QUALIFIED BY TRAINING OR EXPERIENCE TO WORK WITH BACTERIA.

SECTION 10 - OTHER INFORMATION

MISCELLANEOUS INFO.
N/A = NOT APPLICABLE.