MATERIAL SAFETY DATA SHEET

SECTION 1 - NAME AND PRODUCT

MANUFACTURER NAME AND ADDRESS
DIFCO LABORATORIES
P O BOX 331058
DETROIT, MI 48222

EMERGENCY PHONE
800-521-0851

COMMON NAME (ON LABEL)
BACTROL DISKS

TRADE NAME & SYNONYMS
BACTROL DISKS

CHEMICAL NUMBER: D1837-368
ITEM NUMBER: 0422482
VEND CATLG NBR:
ENTRY DATE: 08-16-91
CHANGE DATE: 08-26-91
PO NUMBER: UNE50369

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

BOILING POINT
N/A

VOLATILE BY VOLUME (%)
N/A

VAPOR PRESSURE
N/A

MELTING POINT
N/A

VAPOR DENSITY
N/A

SOLUBILITY IN WATER
N/A

EVAPORATION RATE ( = 1)
N/A

SPECIFIC GRAVITY
N/A

APPEARANCE AND ODOR
N/A

OTHER PHYSICAL DATA
NO OTHER PHYSICAL DATA GIVEN.

Continued on Reverse Side
SECTION 4 - FIRE AND EXPLOSION DATA

FLASH POINT
N/A

LOWER EXPLOSIVE LIMIT
N/A

UPPER EXPLOSIVE LIMIT
N/A

EXTINGUISHING MEDIA
N/A

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
INDICATORS NOT GIVEN
NTP □ Yes □ No IARC □ Yes □ No OSHA □ Yes □ No

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

THRESHOLD LIMITS / TOXICITY DATA
TLV: N.A. FE: N.A.

SECTION 6 - REACTIVITY DATA

STABILITY Unstable □ Stable □

CONDITIONS TO AVOID
N/A

INCOMPATIBILITY (MATERIALS TO AVOID)
N/A

Continued on Reverse Side
SECTION 6 - REACTIVITY DATA (CONTINUED)

HAZARDOUS DECOMPOSITION OR BYPRODUCTS
N/A

HAZARDOUS POLYMERIZATION
May Occur ☐ Will Not Occur ☐

CONDITIONS TO AVOID
N/A

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 70-80% isopropyl alcohol.
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 (212 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

Continued on Next Page
### SECTION 8 - SPECIAL PROTECTION INFORMATION (CONTINUED)

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Protection Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Ventilation</td>
<td>N/A</td>
</tr>
<tr>
<td>Protective Gloves</td>
<td>N/A</td>
</tr>
<tr>
<td>Eye Protection</td>
<td>N/A</td>
</tr>
<tr>
<td>Other Protective Clothing or Equipment</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### 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.