1 Identification of substance:

- **Product name:** *Escherichia coli (ATCC# 35218)*
- **Catalog number:** 237071
- **Manufacturer/Supplier:** BD Diagnostic Systems
  7 Loveton Circle
  Sparks, MD 21152
  Tel: (410) 771-0100 or (800) 638-8663
- **Information department:** Technical Services
- **Emergency information:**
  In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems at (410)771-0100 or (800)638-8663, or ChemTrec at (800)424-9300.

2 Composition/Data on components:

- **Chemical characterization:**
  - **CAS No. Description:** Biological Substance, Category B

3 Hazards identification

- **Hazard description:**
  - *Toxic*
  - **Information pertaining to particular dangers for man and environment**
    - R 23/25 Toxic by inhalation and if swallowed.
  - **NFPA ratings (scale 0-4)**
    - Health = 3
    - Fire = 0
    - Reactivity = 0

4 First aid measures

- **General information** Immediately remove contaminated clothing.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for 15 minutes under running water. Then consult a doctor.
- **After swallowing** Call a doctor immediately.
- **Information for doctor** Show this product label or this MSDS.
5 Fire fighting measures

- Suitable extinguishing agents
  CO₂, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Protective equipment: No special measures required.

6 Accidental release measures

- Person-related safety precautions: Not required.
- Measures for environmental protection: Wipe up with damp sponge or mop.
- Measures for cleaning/collection:
  Dispose contaminated material as waste according to item 13.
  Absorb spills using disposable towels or absorbant material. Wear gloves during spill cleanup.
  Disinfect area with bleach (hypochlorite solution) for at least 15 minutes, or an approved disinfectant for labeled contact time, then wipe clean. Contain absorbant waste in biohazardous bag.
- Additional information:
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage

- Handling
  - Information for safe handling: Prevent formation of aerosols.
  - Information about protection against explosions and fires:
    Keep respiratory protective device available.

- Storage
  - Requirements to be met by storerooms and receptacles: No special requirements.
  - Information about storage in one common storage facility:
    Store away from food stuffs.
    Store away from oxidizing agents.
  - Further information about storage conditions: Store in cool, dry conditions in well sealed containers.

8 Exposure controls and personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- Personal Protective Equipment
  - General protective and hygienic measures
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing.
    Wash hands before breaks and at the end of work.
    Store protective clothing separately.
    Use a Biological Safety Cabinet.
  - Breathing equipment: In case of brief exposure, use a NIOSH/MSHA approved respirator.
Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 01/11/2006
Reviewed on 11/10/2005

Product name: *Escherichia coli* (ATCC# 35218)

- **Protection of hands:** Chemical resistant gloves (i.e. nitrile, or equivalent).
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing (lab coat).

### 9 Physical and chemical properties:

<table>
<thead>
<tr>
<th>General Information</th>
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<tbody>
<tr>
<td><strong>Form:</strong> Solid.</td>
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<td><strong>Color:</strong> According to product specification</td>
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<tr>
<td><strong>Odor:</strong> Characteristic</td>
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- **Change in condition**
  - Melting point/Melting range: Not determined
  - Boiling point/Boiling range: Not determined

- **Flash point:** Not applicable

- **Danger of explosion:** Product does not present an explosion hazard.

- **Density:** Not determined

- **Solubility in / Miscibility with**
  - **Water:** Insoluble
  - **Organic solvents:** 0.0%

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Materials to be avoided:** Incompatible material: strong oxidizers.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** No dangerous decomposition products known.

### 11 Toxicological information

- **Acute toxicity:**
  - **Primary irritant effect:**
    - **on the skin:** No irritating effect.
    - **on the eye:** No irritating effect.
  - **Sensitization:** No sensitizing effects known.

(Contd. on page 4)
**Product name:** Escherichia coli (ATCC# 35218)

- **Additional toxicological information:**
  This product contains, a potential biohazardous material. Use universal precautions when handling. Handle as if product were capable of transmitting disease. Material used in this product has been tested using approved methods and has been found negative for infectious diseases. However, no known test method can offer complete assurance that specimens of human origin will not transmit infectious disease. When handling or disposing, follow precautions described in CDC, OSHA Bloodborne Pathogen recommendations, and the European Directive 90/679/EC.

**12 Ecological information:**

- **Ecotoxic effects:**
- **Other information:**
  The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **General notes:** Generally not hazardous for water.

**13 Disposal considerations**

- **Product:**
  - **Recommendation**
    Must not be disposed of with solid waste.
    After the product is used, disinfect with bleach (sodium hypochlorite), or an approved disinfectant, or incinerate, or autoclave at 121°C for at least 15 minutes before disposing.
    Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.
  - **Uncleaned packagings:**
    - **Recommendation:** Disposal must be made according to state and federal regulations.
    - **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

- **DOT regulations:**
  - **Hazard class:** 6.2
  - **Identification number:** UN3373
  - **Proper shipping name:** Biological Substance, Category B
  - **Label** 6.2

- **Land transport ADR/RID (cross-border)**
  - **ADR/RID class:** 6.2 (14) Infectious substances
  - **Danger code (Kepler):** 606

(Contd. on page 5)
**Product name: Escherichia coli (ATCC# 35218)**

| **UN-Number:** | 3373 |
| **Description of goods:** | Biological Substance, Category B |

**Maritime transport IMDG:**

- **IMDG Class:** 6.2
- **UN Number:** 3373
- **Label:** 6.2
- **EMS Number:** F-A,S-T
- **Marine pollutant:** No
- **Proper shipping name:** Biological Substance, Category B

**Air transport ICAO-TI and IATA-DGR:**

- **ICAO/IATA Class:** 6.2
- **UN/ID Number:** 3373
- **Label:** 6.2
- **Proper shipping name:** Biological Substance, Category B

### 15 Regulations

- **SARA Section 355 (extremely hazardous substances)**
  Substance is not listed.

- **SARA Section 313 (specific toxic chemical listings)**
  Substance is not listed.

- **TSCA (Toxic Substances Control Act)**
  Substance is not listed.

- **California Proposition 65 - Chemicals known to cause cancer**
  Substance is not listed.

- **California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**
  Substance is not listed.

- **California Proposition 65 - Chemicals known to cause reproductive toxicity for males:**
  Substance is not listed.

- **California Proposition 65 - Chemicals known to cause developmental toxicity:**
  Substance is not listed.

- **Carcinogenicity categories**
  - **IARC (International Agency for Research on Cancer)**
    Substance is not listed.
Product name: Escherichia coli (ATCC# 35218)

- NTP (National Toxicology Program)
  Substance is not listed.

- TLV (Threshold Limit Value established by ACGIH)
  Substance is not listed.

- Product related hazard information:
  The product has been classified and marked in accordance with regulations on hazardous materials.

- Hazard symbols:
  T Toxic

- Risk phrases:
  23/25 Toxic by inhalation and if swallowed.

- Safety phrases:
  13 Keep away from food, drink and animal feedingstuffs.

- National regulations
- Water hazard class: Generally not hazardous for water.

16 Other information:
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- Department issuing MSDS: Safety and Environment Department
- Contact: Technical Service Representative