SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: MD-76™
Synonyms: Diatrizoate meglumine and diatrizoate sodium

Manufacturer: Mallinckrodt Inc.
P. O. Box 5840
St. Louis, MO 63134

Revision Date: January 1, 2003
Information Telephone Number: (888) 744-1414
Emergency Telephone Number: (314) 654-1600
CHEMTREC: 1-800-424-9300
CANUTEC: 613-996-6666

SECTION 2. COMPOSITION, INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
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<tr>
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<td>Diatrizoate sodium</td>
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<td>Proprietary Components</td>
<td>–</td>
<td>24%</td>
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</tbody>
</table>

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Read Package Insert Prior to Use
Ensure prompt removal from skin, eyes and clothing. As part of good laboratory and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance.

POTENTIAL HEALTH EFFECTS

Inhalation: Not expected to be a health hazard via inhalation.

Ingestion: Excessive large oral doses may produce gastrointestinal disturbances.

Skin Contact: No adverse health effects expected.

Eye Contact: No adverse effects expected, but splashes may cause mechanical irritation.

Chronic Exposure: No adverse effects expected from chronic exposure.

Aggravation of Pre-existing Conditions: May provoke an allergic reaction in people allergic to iodine or iodinated substances.

Mallinckrodt provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. MALLINCKRODT MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MALLINCKRODT WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.
SECTION 4. FIRST AID MEASURES

Inhalation: Not expected to require first aid measures.

Ingestion: If large amounts were swallowed, give water to drink and get medical advice.

Skin Exposure: Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Exposure: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician if irritation develops.

SECTION 5. FIRE FIGHTING MEASURES

Flammability: Not a flammable material.

Fire/Explosion Hazards: Not considered to be a fire or explosion hazard.

Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Special Instructions: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Small spills may be mopped up or flushed to sewer. Large spills may be collected for disposal or absorbed with an inert material and containerized for disposal. Flush any residue with copious amounts of water.

Ensure compliance with local, state and federal regulations.

SECTION 7. HANDLING AND STORAGE

Store below 30°C (86°F) and protect from light.

SECTION 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Airborne Exposure Limits: None established.

Engineering Controls: Not expected to require any special ventilation.

Respiratory Protection: (NIOSH Approved) Not expected to require personal respirator usage.

Skin Protection: Wear protective gloves and clean body-covering clothing.

Eye/Face Protection: Safety glasses. Maintain eye wash fountain and quick-drench facilities in work area.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear aqueous solution.

Odor: Odorless.

Solubility: Very soluble in water.

Boiling Point: ca. 100°C (212°F).

Melting Point: ca. 0°C (32°F).

Specific Gravity: 1.4-1.45

Vapor Density (Air=1): No information found.

Vapor Pressure (mm Hg): No information found.

Evaporation Rate: No information found.

SECTION 10. STABILITY AND REACTIVITY

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: May emit toxic fumes of nitrous oxides and iodine when heated to decomposition.

Hazardous Polymerization: This substance does not polymerize.

Incompatibilities: No information found.

SECTION 11. TOXICOLOGICAL INFORMATION

Intravenous rat LD50: 14565 mg/kg (Diatrizoate Meglumine); Intravenous mouse LD50: 14000 mg/kg (Diatrizoate Sodium); investigated as a mutagen (Diatrizoate Sodium).

For detailed toxicological information on specific components, write to the address listed in Section 1 - Attn: Corporate Product Monitoring Department.

SECTION 12. ECOLOGICAL INFORMATION

Because this product is intended for use by hospital or clinic patients, it is expected to be treated by standard wastewater treatment facilities with no adverse environmental impacts.

SECTION 13. DISPOSAL CONSIDERATIONS

Collected spills may be flushed to sewer with large amounts of water. Containerized material may be disposed in an approved waste facility.

If medical waste is involved, such as blood, blood products, or sharps, the waste must be handled as a biohazard and disposed of accordingly.

If not a biohazard, waste MD-76 R is considered non-hazardous. Consult local, state and federal regulations for proper disposal.

SECTION 14. TRANSPORT INFORMATION

Not regulated as a Hazardous Material by the Department of Transportation.
SECTION 4. FIRST AID MEASURES

**Inhalation:**
Not expected to require first aid measures.

**Ingestion:**
If large amounts were swallowed, give water to drink and get medical advice.

**Skin Exposure:**
Wash exposed area with soap and water. Get medical advice if irritation develops.

**Eye Exposure:**
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician if irritation develops.

SECTION 5. FIRE FIGHTING MEASURES

**Flammability:**
Not a flammable material.

**Fire/Explosion Hazards:**
Not considered to be a fire or explosion hazard.

**Fire Extinguishing Media:**
Use any means suitable for extinguishing surrounding fire.

**Special Instructions:**
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Small spills may be mopped up or flushed to sewer. Large spills may be collected for disposal or absorbed with an inert material and containerized for disposal. Flush any residue with copious amounts of water.

Ensure compliance with local, state and federal regulations.

SECTION 7. HANDLING AND STORAGE

Store below 30°C (86°F) and protect from light.

SECTION 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

**Airborne Exposure Limits:**
None established.

**Engineering Controls:**
Not expected to require any special ventilation.

**Respiratory Protection:**
Not expected to require personal respirator usage.

**Skin Protection:**
Wear protective gloves and clean body-covering clothing.

**Eye/Face Protection:**
Safety glasses. Maintain eye wash fountain and quick-drench facilities in work area.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:**
Clear aqueous solution.

**Odor:**
Odorless.

**Solubility:**
Very soluble in water.

**Boiling Point:**
ca. 100°C (212°F).

**Melting Point:**
ca. 0°C (32°F).

**Specific Gravity:**
1.4-1.45

**Vapor Density (Air=1):**
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**Vapor Pressure (mm Hg):**
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**Evaporation Rate:**
No information found.

SECTION 10. STABILITY AND REACTIVITY

**Stability:**
Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**
May emit toxic fumes of nitrous oxides and iodine when heated to decomposition.

**Hazardous Polymerization:**
This substance does not polymerize.

**Incompatibilities:**
No information found.

SECTION 11. TOXICOLOGICAL INFORMATION

Intravenous rat LD50: 14565 mg/kg (Diatrizoate Meglumine); Intravenous mouse LD50: 14000 mg/kg (Diatrizoate Sodium); investigated as a mutagen (Diatrizoate Sodium).

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Because this product is intended for use by hospital or clinic patients, it is expected to be treated by standard wastewater treatment facilities with no adverse environmental impacts.

SECTION 13. DISPOSAL CONSIDERATIONS

Collected spills may be flushed to sewer with large amounts of water. Containerized material may be disposed in an approved waste facility.

If medical waste is involved, such as blood, blood products, or sharps, the waste must be handled as a biohazard and disposed of accordingly.

If not a biohazard, waste MD-76 is considered non-hazardous. Consult local, state and federal regulations for proper disposal.

SECTION 14. TRANSPORT INFORMATION

Not regulated as a Hazardous Material by the Department of Transportation.
MD-76'R

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: MD-76’R
Synonyms: Diatrizoate meglumine and diatrizoate sodium

Manufacturer: Mallinckrodt Inc.
P. O. Box 5840
St. Louis, MO 63134

Revision Date: January 1, 2003

Emergency Telephone Number: (314) 654-1600
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SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Read Package Insert Prior to Use
Ensure prompt removal from skin, eyes and clothing. As part of good laboratory and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance.

POSSIBLE HEALTH EFFECTS

Inhalation: Not expected to be a health hazard via inhalation.

Eye Contact: No adverse effects expected, but splashes may cause mechanical irritation.

Chronic Exposure: No adverse effects expected from chronic exposure.

Skin Contact: No adverse health effects expected.

Aggravation of Pre-existing Conditions: May provoke an allergic reaction in people allergic to iodine or iodinated substances.

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