Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M(TM) NON-ACID DISINFECTANT BATHROOM CLEANER CONCENTRATE
(Product No. 15, Twist 'n Fill(tm) System)
MANUFACTURER: 3M
DIVISION: Building & Commercial Services Division

ADDRESS: 3M Center
St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 06/15/2007
Supercedes Date: 09/13/2005
Document Group: 18-2340-0

Product Use: Intended Use: Disinfectant

SECTION 2: INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>% by Wt</th>
</tr>
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<tbody>
<tr>
<td>WATER</td>
<td>7732-18-5</td>
<td>60 - 90</td>
</tr>
<tr>
<td>ETHOXYLATED C12-C15 ALCOHOLS</td>
<td>68131-39-5</td>
<td>3 - 7</td>
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<tr>
<td>BENZYL-C12-16-ALKYLDIMETHYL AMMONIUM CHLORIDES</td>
<td>68424-85-1</td>
<td>4.339</td>
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<td>OCTYLDECYLDIMETHYLAMMONIUM CHLORIDE</td>
<td>32426-11-2</td>
<td>3.235</td>
</tr>
<tr>
<td>ETHYL ALCOHOL</td>
<td>64-17-5</td>
<td>1 - 5</td>
</tr>
<tr>
<td>TETRASODIUM ETHYLENEDIAMINETETRAACETATE</td>
<td>64-02-8</td>
<td>1 - 5</td>
</tr>
<tr>
<td>DIDECYLDIMETHYLAMMONIUM CHLORIDE</td>
<td>7173-51-5</td>
<td>1.628</td>
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<tr>
<td>DIOCTYL DIMETHYL AMMONIUM CHLORIDE</td>
<td>5538-94-3</td>
<td>1.628</td>
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</tbody>
</table>

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Liquid
Odor, Color, Grade: Clear, green, fresh fragrance.
General Physical Form: Liquid
Immediate health, physical, and environmental hazards: May cause chemical eye burns. May cause chemical skin burns. May
cause chemical gastrointestinal burns. Contains a chemical or chemicals which can cause cancer. May cause target organ effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:
Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Skin Contact:
Corrosive (Skin Burns): Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.

Inhalation:
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May be absorbed following inhalation and cause target organ effects.

Ingestion:
Gastrointestinal Corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain; nausea; vomiting; and diarrhea; blood in the feces and/or vomitus may also be seen.

May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:
Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure may cause:
Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Carcinogenicity:
Contains a chemical or chemicals which can cause cancer.

NOTE: This product contains ethanol. In IARC published Monograph No. 44, entitled, "Alcohol Drinking", the carcinogenicity of ethanol was determined based on chronic exposure to ethanol through human consumption of alcoholic beverages. This is not an expected effect during the foreseeable use of this product.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>Class Description</th>
<th>Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL ALCOHOL</td>
<td>64-17-5</td>
<td>Group 1</td>
<td>International Agency for Research on Cancer</td>
</tr>
</tbody>
</table>

3.3 POTENTIAL ENVIRONMENTAL EFFECTS
A 3M Product Environmental Data Sheet (PED) is available. This product is a disinfectant; it is toxic to microorganisms. Care must be taken to avoid improper disposal or release to the environment. When properly handled, use of this product is expected to have minimal environmental impact.

**SECTION 4: FIRST AID MEASURES**

4.1 **FIRST AID PROCEDURES**

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

**Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

**Skin Contact:** Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water for at least 15 minutes. Get immediate medical attention. Wash contaminated clothing and clean shoes before reuse.

**Inhalation:** Remove person to fresh air. If signs/symptoms develop, get medical attention.

**If Swallowed:** Do not induce vomiting. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

4.2 **NOTE TO PHYSICIANS**

Probable mucosal damage may contraindicate the use of gastric lavage.

Measures against circulatory shock, respiratory depression, and convulsion may be needed.

**SECTION 5: FIRE FIGHTING MEASURES**

5.1 **FLAMMABLE PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point</td>
<td>&gt;=200 °F [Test Method: Closed Cup]</td>
</tr>
<tr>
<td>Flammable Limits - LEL</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flammable Limits - UEL</td>
<td>No Data Available</td>
</tr>
<tr>
<td>OSHA Flammability Classification</td>
<td>Class IIIB Combustible Liquid</td>
</tr>
</tbody>
</table>

5.2 **EXTINGUISHING MEDIA**

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 **PROTECTION OF FIRE FIGHTERS**

**Special Fire Fighting Procedures:** Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Non-flammable; ordinary combustible material.

**Note:** See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.
SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Observe precautions from other sections. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Ventilate the area with fresh air. Contain spill. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with water. Collect the resulting residue containing solution. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING
Keep out of the reach of children. This product is not intended to be used without prior dilution as specified on the product label. Avoid breathing of vapors, mists or spray. Avoid skin contact. Avoid eye contact with vapors, mists, or spray. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

7.2 STORAGE
Do not store containers on their sides. Store away from acids.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS
Use in a well-ventilated area. NOTE: When used as directed and diluted and dispensed with a TWIST 'n FILL(TM) Chemical Dispenser, special ventilation is not required.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection
Avoid eye contact with vapors, mists, or spray. NOTE: When used as directed and diluted and dispensed with a TWIST 'n FILL(TM) Chemical Dispenser, eye contact with the concentrate is not expected to occur.
If the product is not used with the Twist 'n Fill system or if there is an accidental release, the following eye protection is recommended: Full Face Shield, Indirect Vented Goggles.

8.2.2 Skin Protection
Avoid skin contact. NOTE: When used as directed and diluted and dispensed with a TWIST 'n FILL(TM) Chemical Dispenser, skin contact with the concentrate is not expected to occur.

If the product is not used with the Twist 'n Fill system or if there is an accidental release, select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials. Gloves made from the following material is recommended: Butyl Rubber, Neoprene, Nitrile Rubber. The following protective clothing material(s) are recommended: Apron - Neoprene.

8.2.3 Respiratory Protection
Avoid breathing of vapors, mists or spray. NOTE: When used as directed and diluted and dispensed with a TWIST 'n FILL(TM) Chemical Dispenser, respiratory protection is not required.
If the product is not used with the Twist 'n Fill system or if there is an accidental release, select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece or
full face air-purifying respirator with organic vapor cartridges and N95 particulate prefilters. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

8.2.4 Prevention of Swallowing
Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

8.3 EXPOSURE GUIDELINES

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Authority</th>
<th>Type</th>
<th>Limit</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL ALCOHOL</td>
<td>ACGIH</td>
<td>TWA</td>
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<td>Table A4</td>
</tr>
<tr>
<td>ETHYL ALCOHOL</td>
<td>OSHA</td>
<td>TWA</td>
<td>1000 ppm</td>
<td>Table Z-1</td>
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</tbody>
</table>

SOURCE OF EXPOSURE LIMIT DATA:
ACGIH: American Conference of Governmental Industrial Hygienists
CMRG: Chemical Manufacturer Recommended Guideline
OSHA: Occupational Safety and Health Administration
AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form: Liquid
Odor, Color, Grade: Clear, green, fresh fragrance.
General Physical Form: Liquid
Flash Point: >=200 °F [Test Method: Closed Cup]
Flammable Limits - LEL: No Data Available
Flammable Limits - UEL: No Data Available
Boiling point: Approximately 210 °F
Density: 1.0
Vapor Pressure: <=27 psia [@ 131 °F]
Specific Gravity: Approximately 1.01 [Ref Std: WATER=1]
pH: Approximately 6.8
Solubility in Water: Complete
Hazardous Air Pollutants: No Data Available
Volatile Organic Compounds: 1.5 % weight [Test Method: calculated per CARB title 2]
Percent volatile: 65 - 100 %
VOC Less H2O & Exempt Solvents: 46.15 - 230.76 g/l [Test Method: calculated per CARB title 2]
Viscosity: <=100 centipoise

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: None known
Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Hydrogen Chloride</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Ammonia</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Oxides of Nitrogen</td>
<td>During Combustion</td>
</tr>
</tbody>
</table>

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

A 3M Product Environmental Data Sheet (PED) is available.

CHEMICAL FATE INFORMATION

A 3M Product Environmental Data Sheet (PED) is available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Incinerate in an industrial or commercial facility in the presence of a combustible material. Combustion products will include HCl. Facility must be capable of handling halogenated materials. As disposal alternative, dispose of waste product in a facility permitted to accept chemical waste.

EPA Hazardous Waste Number (RCRA): Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>ID Number</th>
<th>UPC</th>
<th>ID Number</th>
<th>UPC</th>
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<tr>
<td>70-0711-6231-0</td>
<td>00-48011-20787-7</td>
<td>70-0711-6232-8</td>
<td>00-48011-23898-7</td>
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<td>70-0711-6234-4</td>
<td>00-48011-34833-9</td>
<td>70-0711-6339-1</td>
<td>00-48011-34889-1</td>
</tr>
</tbody>
</table>

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.
SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS
311/312 Hazard Categories:
Fire Hazard - No  Pressure Hazard - No  Reactivity Hazard - No  Immediate Hazard - Yes  Delayed Hazard - Yes

FIFRA

<table>
<thead>
<tr>
<th>Status</th>
<th>Registration Number</th>
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</thead>
<tbody>
<tr>
<td>Registered</td>
<td>1839-166-10350</td>
</tr>
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</table>

STATE REGULATIONS

CHEMICAL INVENTORIES
The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS.

The components of this material are in compliance with the new chemical notification requirements for the Korean Existing Chemicals Inventory.

The components of this product are listed on the Australian Inventory of Chemical Substances.

All the components of this product are listed on China's Inventory of Chemical Substances.

The components of this product are in compliance with notification requirements in the Philippines.

The components of this product are listed on the Canadian Domestic Substances List.

INTERNATIONAL REGULATIONS

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification

| Health: 3 | Flammability: 1 | Reactivity: 0 | Special Hazards: None |

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification
Health: 3  Flammability: 1  Reactivity: 0  Protection: X - See PPE section.

Hazardous Material Identification System (HMIS®) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint and Coatings Association (NPCA).

Revision Changes:
Section 1: Product use information was modified.
Section 8: Skin protection comment was modified.
Section 1: Division name was modified.
Copyright was modified.
Section 3: Immediate skin hazard(s) was modified.
Section 3: Potential effects from skin contact information was modified.
Section 3: Potential effects from ingestion information was modified.
Section 7: Storage information was modified.
Section 8: Engineering controls information was modified.
Section 4: First aid for skin contact - decontamination - was modified.
Section 4: First aid for skin contact - medical assistance - was modified.
Section 4: First aid for ingestion (swallowing) - decontamination - was modified.
Section 4: First aid for ingestion (swallowing) - medical assistance - was modified.
Section 3: Carcinogenicity phrase was modified.
Section 3: Immediate other hazard(s) was modified.
Section 2: Ingredient table was modified.
Section 15: Inventories information was modified.
Section 3: Immediate ingestion hazard(s) was added.
Section 9: Density information was added.
Section 16: NFPA hazard classification for corrosivity was deleted.

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