Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M(TM) HEAVY DUTY MULTI-SURFACE MARK REMOVER Ready-to-Use (Twist 'n Fill(TM) Product No. 2)
MANUFACTURER: 3M
DIVISION: Commercial Care Division
ADDRESS: 3M Center
St. Paul, MN 55144-1000

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

Issue Date: 12/27/2004
Supersedes Date: Initial Issue
Document Group: 19-7421-1

Product Use:
Specific Use: MARK REMOVER

SECTION 2: INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>% by Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER</td>
<td>7732-18-5</td>
<td>&gt; 90</td>
</tr>
<tr>
<td>1-METHOXY-2-PROPA NOL</td>
<td>107-98-2</td>
<td>1 - 5</td>
</tr>
<tr>
<td>ETHANOLAMINE</td>
<td>141-43-5</td>
<td>0.5 - 1.5</td>
</tr>
</tbody>
</table>

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Liquid
Odor, Color, Grade: Colorless to light yellow color, citrus scent.
General Physical Form: Liquid
Immediate health, physical, and environmental hazards: Combustible liquid and vapor. May cause target organ effects.

3.2 POTENTIAL HEALTH EFFECTS
Eye Contact:
Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

Skin Contact:
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching.

Inhalation:
Upper 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 Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhea and vomiting.

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.
- Kidney Effects: Signs/symptoms may include reduced or absent urine production, increased serum creatinine, lower back pain, increased protein in urine, and increased blood urea nitrogen (BUN).

3.3 POTENTIAL ENVIRONMENTAL EFFECTS

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

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: Flush eyes with large amounts of water. Get medical attention.

Skin Contact: Immediately flush skin with large amounts of water. If signs/symptoms develop, get medical attention.

Inhalation: If signs/symptoms develop, remove person to fresh air. If signs/symptoms persist, 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.

SECTION 5: FIRE FIGHTING MEASURES
5.1 FLAMMABLE PROPERTIES

Autoignition temperature
Flash Point
Flammable Limits - LEL
Flammable Limits -UEL
OSHA Flammability Classification:

No Data Available
160 °F [Test Method: Tagliabue Closed Cup]
No Data Available
No Data Available
Class IIIA Combustible Liquid

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: Combustible liquid and vapor.

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-HEPES 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. Place in a closed container approved for transportation by appropriate authorities. Cover, but do not seal for 48 hours. 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

NOTE: The above precautionary information presumes that this ready-to-use product has been diluted and dispensed from a TWIST 'n FILL(TM) Chemical Dispenser. Avoid eye contact with vapors, mists, or spray. Avoid prolonged or repeated skin contact. Avoid breathing of vapors, mists or spray. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Keep out of the reach of children.

7.2 STORAGE

Store away from heat. Store out of direct sunlight.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Use in a well-ventilated area.
8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection
Avoid eye contact with vapors, mists, or spray.

8.2.2 Skin Protection
Avoid prolonged or repeated skin contact.

8.2.3 Respiratory Protection
Avoid breathing of vapors, mists or spray.

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>1-METHOXY-2-PROpanOL</td>
<td>ACGIH</td>
<td>TWA</td>
<td>100 ppm</td>
<td></td>
</tr>
<tr>
<td>1-METHOXY-2-PROpanOL</td>
<td>ACGIH</td>
<td>STEL</td>
<td>150 ppm</td>
<td></td>
</tr>
<tr>
<td>1-METHOXY-2-PROpanOL</td>
<td>OSHA</td>
<td>TWA</td>
<td>100 ppm</td>
<td>Table Z-1A</td>
</tr>
<tr>
<td>1-METHOXY-2-PROpanOL</td>
<td>OSHA</td>
<td>STEL</td>
<td>150 ppm</td>
<td>Table Z-1A</td>
</tr>
<tr>
<td>ETHANOLamine</td>
<td>ACGIH</td>
<td>TWA</td>
<td>3 ppm</td>
<td></td>
</tr>
<tr>
<td>ETHANOLamine</td>
<td>ACGIH</td>
<td>STEL</td>
<td>6 ppm</td>
<td></td>
</tr>
<tr>
<td>ETHANOLamine</td>
<td>OSHA</td>
<td>TWA</td>
<td>3 ppm</td>
<td>Table Z-1A</td>
</tr>
<tr>
<td>ETHANOLamine</td>
<td>OSHA</td>
<td>STEL</td>
<td>6 ppm</td>
<td>Table Z-1A</td>
</tr>
</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:
Colorless to light yellow color, citrus scent.
General Physical Form:
Liquid
Autoignition temperature:
No Data Available
Flash Point:
160 °F [Test Method: Tagliabue Closed Cup]
Flash Flammable Limits - LEL:
No Data Available
Flash Flammable Limits - UEL:
No Data Available
Boiling point:
> 200 °F
Density:
No Data Available
Vapor Density:
No Data Available

Vapor Pressure:
No Data Available

Specific Gravity:
1 [Ref Std: WATER=1]
9.5 - 10.5
pH:
Not Applicable
Melting point:

Solubility in Water:
Complete
Evaporation rate:
Approximately 1 [Ref Std: WATER=1]
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>Irritant Vapors or Gases</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

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Discharge spent solutions and small quantities (less than 5 gal.(19 L)) to a wastewater treatment system. As a 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
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 - Yes  Pressure Hazard - No  Reactivity Hazard - No  Immediate Hazard - Yes  Delayed Hazard - Yes

STATE REGULATIONS

CHEMICAL INVENTORIES

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: 1  Flammability: 2  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: 1  Flammability: 2  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).

No revision information is available.

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