



Material Safety Data Sheet

Copyright, 2008, 3M Company. All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M(TM) TROUBLESHOOTER(TM) FINISH REMOVER Ready-to-Use (Product No. 21, 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: 06/11/2008

Supersedes Date: 04/27/2007

Document Group: 08-2579-4

Product Use:

Intended Use: Hard Floor Maintenance

SECTION 2: INGREDIENTS

| <u>Ingredient</u> | <u>C.A.S. No.</u> | <u>% by Wt</u> |
|--|-------------------|----------------|
| WATER | 7732-18-5 | 60 - 90 |
| ETHANOLAMINE | 141-43-5 | 3 - 7 |
| OLEAMINE OXIDE | 14351-50-9 | 3 - 7 |
| BENZYL ALCOHOL | 100-51-6 | 1 - 5 |
| ETHYL ALCOHOL | 64-17-5 | 1 - 5 |
| DIETHYLENE GLYCOL MONO(2-ETHYLHEXYL) ETHER | 1559-36-0 | 0.1 - 1.0 |

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Liquid

Odor, Color, Grade: Light green color, mild amine (ammonia-like) odor.

General Physical Form: Liquid

Immediate health, physical, and environmental hazards: May cause severe eye irritation. May cause severe skin irritation. 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:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Skin Contact:

Severe Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain.

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 Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. 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/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

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.

Ingredient

ETHYL ALCOHOL

C.A.S. No.

64-17-5

Class Description

Group 1

Regulation

International Agency for Research on Cancer

3.3 POTENTIAL ENVIRONMENTAL EFFECTS

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

A conservative assessment indicates this product presents a low environmental risk. Components released to the environment through use and disposal are expected to have insignificant environmental impacts.

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. Get 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 unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature

No Data Available

Flash Point

> 200 °F [*Test Method:* Tagliabue Closed Cup]

Flammable Limits - LEL

No Data Available

Flammable Limits - UEL

No Data Available

OSHA Flammability Classification:

Class IIIB 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: 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. Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. 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. Dilute in a large excess of water. Carefully, and with stirring, add appropriate dilute acid such as sulfamic acid or vinegar. Confirm neutrality. For large spills, if necessary, get assistance from professional spill clean up team. For small spills, carefully neutralize spill by adding appropriate dilute acid such as vinegar. Work slowly to avoid boiling or spattering. Continue to add neutralizing agent until reaction stops. Let cool before collecting. Or use a commercially available caustic (alkaline or basic) spill clean-up kit. Follow kit directions exactly. 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. Clean up residue with detergent and water. Collect the resulting residue containing solution. 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

Keep out of the reach of children. 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. Avoid contact with oxidizing agents. 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.

7.2 STORAGE

Store away from acids. Store away from oxidizing agents.

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.

Wear Indirect Vented Goggles when eye contact is possible due to splashing, spraying, or misting of material.

8.2.2 Skin Protection

Avoid skin contact.

If skin contact is expected, 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(s) are recommended: Butyl Rubber, Neoprene, and Nitrile Rubber.

8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray. Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

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

| <u>Ingredient</u> | <u>Authority</u> | <u>Type</u> | <u>Limit</u> | <u>Additional Information</u> |
|-------------------|------------------|-------------------------|--------------|-------------------------------|
| BENZYL ALCOHOL | AIHA | TWA | 10 ppm | |
| COPPER COMPOUNDS | ACGIH | TWA, as Cu dust or mist | 1 mg/m3 | |
| COPPER COMPOUNDS | OSHA | TWA, as dust or mist | 1 mg/m3 | Table Z-1A |
| ETHANOLAMINE | ACGIH | TWA | 3 ppm | |
| ETHANOLAMINE | ACGIH | STEL | 6 ppm | |
| ETHANOLAMINE | OSHA | TWA | 3 ppm | Table Z-1A |
| ETHANOLAMINE | OSHA | STEL | 6 ppm | Table Z-1A |
| ETHYL ALCOHOL | ACGIH | TWA | 1000 ppm | Table A4 |
| ETHYL ALCOHOL | OSHA | TWA | 1000 ppm | Table Z-1 |

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: | Light green color, mild amine (ammonia-like) odor. |
| General Physical Form: | Liquid |
| Autoignition temperature | No Data Available |
| Flash Point | > 200 °F [Test Method: Tagliabue Closed Cup] |
| Flammable Limits - LEL | No Data Available |
| Flammable Limits - UEL | No Data Available |
| Boiling point | > 95 °C |
| Density | No Data Available |
| Vapor Density | No Data Available |
| Vapor Pressure | No Data Available |
| Specific Gravity | 1 [Ref Std: WATER=1] |
| pH | 10.5 - 11.5 |
| Melting point | Not Applicable |
| Solubility in Water | Complete |
| Evaporation rate | No Data Available |
| Volatile Organic Compounds | < 12 % [Test Method: calculated per CARB title 2] |
| Percent volatile | 66 - 100 % |
| VOC Less H2O & Exempt Solvents | < 700 g/l [Test Method: calculated per CARB title 2] |
| Viscosity | > 600 centipoise |

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: Strong acids; Strong oxidizing agents

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

| <u>Substance</u> | <u>Condition</u> |
|--------------------|-------------------|
| Carbon monoxide | During Combustion |
| Carbon dioxide | During Combustion |
| Oxides of Nitrogen | During Combustion |
| Oxides of Sulfur | During Combustion |

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. Dispose of waste product in a facility permitted to accept chemical waste. 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 - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

STATE REGULATIONS

CHEMICAL INVENTORIES

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

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: 2 Flammability: 1 Reactivity: 0 Special Hazards: None

Acid/Base: Alkaline

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: 2 **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.

Copyright was modified.

Section 7: Handling information was modified.

Section 8: Eye/face protection comment was added.

Section 8: Skin protection comment was added.

Section 2: Ingredient table was added.

Section 8: Exposure guidelines ingredient information was added.

Section 8: Exposure guidelines data source legend was added.

Section 3: Carcinogenicity table was added.

Section 3: Carcinogenicity heading was added.

Section 8: Eye/face protection information was deleted.

Section 8: Skin protection - recommended gloves information was deleted.

Section 8: Respiratory protection - recommended respirators information was deleted.

Section 8: Eye/face protection text was deleted.

Section 8: Skin protection - recommended gloves text was deleted.

Section 8: Respiratory protection - recommended respirators was deleted.

Section 8: Respiratory protection - recommended respirators guide was deleted.

Section 8: Skin protection - protective clothing text was deleted.

Section 8: Respiratory protection - recommended respirators punctuation was deleted.

Section 8: Eye/face protection information - punctuation - was deleted.

Section 8: Skin protection - recommended gloves - punctuation was deleted.

DISCLAIMER: The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the MSDS available directly from 3M.

3M MSDSs are available at www.3M.com