



Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M(TM) TROUBLESHOOTER(TM)
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)

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Product Use:
Specific Use: REMOVAL OF SOIL, GREASE AND FLOOR FINISH BUILD UP

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
WATER	7732-18-5	60 - 90
2-BUTOXYETHANOL	111-76-2	10 - 30
ISOBUTANE	75-28-5	5 - 10
ETHANOLAMINE	141-43-5	3 - 7
PROPANE	74-98-6	0.1 - 1.5

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Aerosol

Odor, Color, Grade: Off white, milky liquid.

General Physical Form: Liquid

Immediate health, physical, and environmental hazards: Aerosol container contains flammable gas under pressure. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back. May cause target organ effects.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact:

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

Inhalation:

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Single exposure, above recommended guidelines, may cause:

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.

Target Organ Effects:

Single exposure, above recommended guidelines, may cause:

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, above recommended guidelines, 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).

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: Wash affected area with soap and 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.

4.2 NOTE TO PHYSICIANS

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

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
Nil [Details: NON-FLAMMABLE ACCORDING TO
FLAME PROJECTION TEST]
No Data Available
No Data Available
Class IA Flammable 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: Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Aerosol container contains flammable material under pressure. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

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. Ventilate the area. **WARNING!** A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. If it can be done safely, place the leaking container in an exhaust hood or well-ventilated area. Contain spilled material. Clean up residue. Place depressurized can and clean up wastes in a closed container approved for transportation by appropriate authorities. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. **Warning!** A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Contain spill. Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR - AFFF type foam is recommended. 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. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard. Collect as much of the spilled material as possible using non-sparking tools. 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. Seal the container. 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

Aerosol container contains flammable gas under pressure. Do not spray near flames or sources of ignition. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Avoid eye contact with vapors, mists, or spray. Avoid 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. Do not pierce or burn container, even after use. Avoid contact with oxidizing agents. Keep out of the reach of children.

7.2 STORAGE

Store away from heat. Store out of direct sunlight. Store away from acids. Store away from oxidizing agents. Do not store containers on their sides.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Do not use in a confined area or areas with little or no air movement. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Indirect Vented Goggles.

8.2.2 Skin Protection

Avoid 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

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
2-BUTOXYETHANOL	ACGIH	TWA	20 ppm	Table A3
2-BUTOXYETHANOL	OSHA	TWA, Vacated	25 ppm	Skin Notation*
2-BUTOXYETHANOL	OSHA	TWA	50 ppm	Skin Notation*; Table Z-1
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
ISOBUTANE	ACGIH	TWA	1000 ppm	
PROPANE	ACGIH	TWA	1000 ppm	
PROPANE	OSHA	TWA	1000 ppm	Table Z-1

* Substance(s) refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

VAC Vacated PEL: Vacated Permissible Exposure Limits [PEL] are enforced as the OSHA PEL in some states. Check with your local regulatory agency.

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:	Aerosol
Odor, Color, Grade:	Off white, milky liquid.
General Physical Form:	Liquid
Autoignition temperature	No Data Available
Flash Point	Nil [Details: NON-FLAMMABLE ACCORDING TO FLAME PROJECTION TEST]
Flammable Limits - LEL	No Data Available
Flammable Limits - UEL	No Data Available
Boiling point	Approximately 212 °F
Density	Approximately 1
Vapor Density	No Data Available
Vapor Pressure	No Data Available
Specific Gravity	Approximately 1 [Ref Std: WATER=1]
pH	11 - 12
Melting point	Not Applicable
Solubility in Water	Complete
Evaporation rate	No Data Available
Volatile Organic Compounds	18 - 49 % [Test Method: calculated per CARB title 2]
Percent volatile	78 - 100 %
VOC Less H2O & Exempt Solvents	450 - 1000 g/l [Test Method: calculated per CARB title 2]
Viscosity	No Data Available

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: Heat; Sparks and/or flames; Strong oxidizing agents; Strong acids

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
Irritant Vapors or Gases	During Combustion
Oxides of Nitrogen	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: Incinerate in an industrial or commercial facility. As a disposal alternative, dispose of waste product in a facility permitted to accept chemical waste. Facility must be capable of handling aerosol cans. Dispose of empty product containers in a sanitary landfill.

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

SECTION 14: TRANSPORT INFORMATION

ID Number	UPC	ID Number	UPC
61-5000-6131-4	00-48011-14001-8	FZ-0100-0465-8	
FZ-0100-0466-6			

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 - Yes Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient	C.A.S. No	% by Wt
2-BUTOXYETHANOL (GLYCOL ETHERS)	111-76-2	10 - 30

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.

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: 4 Reactivity: 0 Special Hazards: None****Aerosol Storage Code: 1**

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: 4 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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