

MATERIAL SAFETY
DATA SHEET**3M**

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DIVISION: HOME AND COMMERCIAL CARE DIVISION

TRADE NAME:

3M Brand HEAVY DUTY MULTI-SURFACE CLEANER CONCENTRATE
(Product No. 2, Twist 'n Fill (tm) System)

ID NUMBER/U.P.C.: 70-0705-2682-0 00-48011-19160-2 70-0705-4313-0 00-48011-19202-9
70-0705-4903-8 00-48011-19307-1 70-0705-8961-2 00-48011-19964-6
70-0707-1407-9 00-48011-20795-2

ISSUED: FEBRUARY 28, 1997

SUPERSEDES: DECEMBER 18, 1996

DOCUMENT: 06-1681-3

1. INGREDIENT	C.A.S. NO.	PERCENT
1-METHOXY-2-PROPANOL	107-98-2	40 - 70
WATER	7732-18-5	10 - 30
ETHANOLAMINE	141-43-5	10 - 30
HYDROXYALKYL AMINE OXIDES	68478-65-9	5 - 10
ISOPROPYL ALCOHOL	67-63-0	1 - 5
DODECYLBENZENESULFONIC ACID	27176-87-0	1 - 5
2-ETHYL-HEXYLOXYETHANOL	1559-35-9	1 - 5
2-METHOXY-1-PROPANOL	1589-47-5	1 - 5

NOTE: IN CASE OF EMERGENCY: THE NUMBER AT THE TOP OF THIS PAGE PROVIDES 24 HOUR RESPONSE FROM ANY PHONE FOR ALL EMERGENCIES WITH THIS PRODUCT.

THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICAL OR CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND 40 CFR PART 372:

2-ETHYL-HEXYLOXYETHANOL

2. PHYSICAL DATA

BOILING POINT:..... N/D
VAPOR PRESSURE:..... N/D
VAPOR DENSITY:..... N/D
EVAPORATION RATE:..... N/D
SOLUBILITY IN WATER:..... complete
SP. GRAVITY:..... ca. 0.978 Water = 1
PERCENT VOLATILE:..... ca. 95 %
pH:..... ca. 11.9
VISCOSITY:..... ca. 10 CPS
MELTING POINT:..... N/A
APPEARANCE AND ODOR: Liquid, colorless to light amber color, fresh scent

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

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3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... ca. 105 F T.C.C.
FLAMMABLE LIMITS - LEL: N/D
FLAMMABLE LIMITS - UEL: N/D
AUTOIGNITION TEMPERATURE: ... N/D
EXTINGUISHING MEDIA:
Water spray, Carbon dioxide, Dry chemical, Foam, Alcohol-type foam
SPECIAL FIRE FIGHTING PROCEDURES:
Wear full protective clothing, including helmet, self-contained,
positive pressure or pressure demand breathing apparatus, bunker coat
and pants, bands around arms, waist and legs, face mask, and
protective covering for exposed areas of the head.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
See Hazardous Decomposition section for products of combustion.
Closed containers exposed to heat from fire may build pressure and
explode.
NFPA HAZARD CODES: HEALTH: 2 FIRE: 2 REACTIVITY: 0
UNUSUAL REACTION HAZARD: none
OSHA FIRE HAZARD CLASS: Class II Combustible Liquid

4. REACTIVITY DATA

STABILITY: Stable
INCOMPATIBILITY - MATERIALS TO AVOID:
Strong Oxidizing Agents.
HAZARDOUS POLYMERIZATION: Will Not Occur
HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon Monoxide and Carbon Dioxide, Irritant Vapors or Gases.

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

Refer to other sections of this MSDS for information regarding
physical and health hazards, respiratory protection, ventilation, and
personal protective equipment. In the U.S.A., call (612) 733-1110 or
(612) 733-6100 for 24-hour spill assistance. Ventilate area.
Extinguish all ignition sources. Contain spill. Evacuate
unprotected personnel from hazard area. Cover with absorbent
material. Collect using non-sparking tools. Clean up residue with
water. Place in an approved metal container. Seal the container.

RECOMMENDED DISPOSAL:

Incinerate in a permitted hazardous waste incinerator.

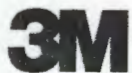
ENVIRONMENTAL DATA:

A Product Environmental Data Sheet (PED) is available.

The use of this product is expected to have no significant
environmental impact. All components will eventually degrade in the
environment.

REGULATORY INFORMATION:

Volatile Organic Compounds: ca. 55 %.

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5. ENVIRONMENTAL INFORMATION (continued)

VOC Less H2O & Exempt Solvents: ca. 55 %.

Since regulations vary, consult applicable regulations or authorities before disposal. In the event of an uncontrolled release of this material, the user should determine if the release qualifies as a reportable quantity. U.S. EPA Hazardous Waste Number = D001 (Ignitable)

TSCA: All chemicals used in the manufacture of this material are in compliance with the US TSCA inventory.

EPCRA HAZARD CLASS:

FIRE HAZARD: Yes PRESSURE: No REACTIVITY: No ACUTE: Yes CHRONIC: Yes

6. SUGGESTED FIRST AID

EYE CONTACT:

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

SKIN CONTACT:

Immediately flush skin with large amounts of water for at least 15 minutes in a chemical safety shower while removing contaminated clothing and shoes. Get immediate medical attention. Wash contaminated clothing before reuse.

INHALATION:

If signs/symptoms occur, remove person to fresh air. If signs/symptoms continue, call a physician.

IF SWALLOWED:

If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

7. PRECAUTIONARY INFORMATION

EYE PROTECTION:

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. Avoid eye contact. The following should be worn alone or in combination, as appropriate, to prevent eye contact: Wear vented goggles. Wear full-face shield.

SKIN PROTECTION:

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. Avoid skin contact. Wear appropriate gloves when handling this material. A pair of gloves made from the following material(s) are recommended: butyl rubber, neoprene,

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7. PRECAUTIONARY INFORMATION (continued)

nitrile rubber. Use one or more of the following personal protection items as necessary to prevent skin contact: apron, coveralls.

VENTILATION PROTECTION:

NOTE: When used as directed and diluted and dispensed with a TWIST'n FILL (tm) Chemical Dispenser, special ventilation is not required. Use with appropriate local exhaust ventilation. Provide appropriate local exhaust ventilation at transfer points. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION:

NOTE: When used as directed and diluted and dispensed with a TWIST'n FILL (tm) Chemical Dispenser, respiratory protection is not required. Avoid breathing of vapors, mists or spray. Avoid breathing of airborne material. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: full-face organic vapor respirator.

PREVENTION OF ACCIDENTAL INGESTION:

Wash hands after handling and before eating.

RECOMMENDED STORAGE:

Store away from heat. Keep container in well-ventilated area. Keep out of the reach of children.

FIRE AND EXPLOSION AVOIDANCE:

NOTE: When used as directed and diluted and dispensed with a TWIST'n FILL (tm) Chemical Dispenser, container grounding and low static or grounded shoes are not required. Keep container tightly closed. Keep away from heat, sparks, open flame, and other sources of ignition. Prevent all sources of ignition. Ground containers securely when transferring contents. Wear low static or properly grounded shoes. Combustible liquid and vapor.

OTHER PRECAUTIONARY INFORMATION:

Not intended for consumer sale or use. This product is not intended to be used without prior dilution as specified on the product label.

HMIS HAZARD RATINGS: HEALTH: 3 FLAMMABILITY: 2 REACTIVITY: 0
PERSONAL PROTECTION: X (See precautions, section 7.)

INGREDIENTS	EXPOSURE LIMITS		UNIT	TYPE	AUTH	SKIN*
	VALUE					
1-METHOXY-2-PROPANOL	100		ppm	TWA	ACGIH	
1-METHOXY-2-PROPANOL	150		ppm	STEL	ACGIH	
1-METHOXY-2-PROPANOL	100		ppm	TWA	OSHA	
1-METHOXY-2-PROPANOL	150		ppm	STEL	OSHA	

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7. PRECAUTIONARY INFORMATION (continued)

INGREDIENTS	EXPOSURE LIMITS		TYPE	AUTH	SKIN*
	VALUE	UNIT			
WATER	NONE	NONE	NONE	NONE	
ETHANOLAMINE	3	ppm	TWA	ACGIH	
ETHANOLAMINE	6	ppm	STEL	ACGIH	
ETHANOLAMINE	3	ppm	TWA	OSHA	
ETHANOLAMINE	6	ppm	STEL	OSHA	
HYDROXYALKYL AMINE OXIDES	NONE	NONE	NONE	NONE	
ISOPROPYL ALCOHOL	400	ppm	TWA	ACGIH	
ISOPROPYL ALCOHOL	500	ppm	STEL	ACGIH	
ISOPROPYL ALCOHOL	400	ppm	TWA	OSHA	
ISOPROPYL ALCOHOL	500	ppm	STEL	OSHA	
DODECYLBENZENESULFONIC ACID	NONE	NONE	NONE	NONE	
2-ETHYL-HEXYLOXYETHANOL	NONE	NONE	NONE	NONE	
2-METHOXY-1-PROPANOL	NONE	NONE	NONE	NONE	

* SKIN NOTATION: Listed substances indicated with "Y" under SKIN 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.

SOURCE OF EXPOSURE LIMIT DATA:

- ACGIH: American Conference of Governmental Industrial Hygienists
- AIHA: American Industrial Hygiene Assoc. Workplace Environmental Exposure Level
- OSHA: Occupational Safety and Health Administration
- NONE: None Established

8. HEALTH HAZARD DATA

EYE CONTACT:

Chemical Related Eye Burns (chemical corrosivity): signs/symptoms can include cloudy appearance of the cornea, chemical burns, pain, tearing, ulcers, impaired vision or loss of vision.

SKIN CONTACT:

Skin Burns (chemical corrosivity): signs/symptoms can include redness, swelling, itching, pain, blistering, ulceration, sloughing, and scar formation.

May be absorbed through the skin and produce effects similar to those caused by inhalation and/or ingestion.

Prolonged or repeated exposure may cause:

Allergic Skin Reaction: signs/symptoms can include redness, swelling, blistering, and itching.

INHALATION:

Single overexposure, above recommended guidelines, may cause:

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8. HEALTH HAZARD DATA**(continued)**

Central Nervous System Depression: signs/symptoms can include headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing.

WHILE THE FOLLOWING EFFECTS ARE ASSOCIATED WITH ONE OR MORE OF THE INDIVIDUAL INGREDIENTS IN THIS PRODUCT AND ARE REQUIRED TO BE INCLUDED ON THE MSDS BY THE U.S. OSHA HAZARD COMMUNICATION STANDARD, THEY ARE NOT EXPECTED EFFECTS DURING FORESEEABLE USE OF THIS PRODUCT.

Prolonged or repeated overexposure, above recommended guidelines, may cause:

Heart Effects: signs/symptoms can include arrhythmia, heart attack and death.

Kidney Effects: signs/symptoms can include reduced urine volume, blood in urine and back pain.

Liver Effects: signs/symptoms can include yellow skin(jaundice) and tenderness of upper abdomen.

Nervous System Effects: signs/symptoms can include emotional changes, lack of coordination, tremors and sensory loss.

IF SWALLOWED:

Ingestion is not a likely route of exposure to this product.

Ingestion may cause:

Irritation of Gastrointestinal Tissues: signs/symptoms can include pain, vomiting, abdominal tenderness, nausea, blood in vomitus, and blood in feces.

Aspiration Pneumonitis: signs/symptoms can include coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

OTHER HEALTH HAZARD INFORMATION:

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: medical conditions, if any, known to be aggravated by exposure to this product are indicated in the appropriate portions of the Health Hazard Data section of this data sheet.

CARCINOGENS: components of this product, if any, known to cause, or suspected of causing, cancer as determined by OHSA, IARC, OR NTP are described in the Health Hazard Data section of this data sheet in accord with the OHSA Hazard Communications Standard, 29 CFR 1910.1200

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SECTION CHANGE DATES

HEADING	SECTION CHANGED SINCE	DECEMBER 18, 1996	ISSUE
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Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

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