

MATERIAL SAFETY
DATA SHEET

pp



Copyright, 1997, Minnesota Mining and Manufacturing 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 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.

DIVISION: HOME AND COMMERCIAL CARE DIVISION

TRADE NAME:

3M Brand PRETREATMENT CLEANER CONCENTRATE
(Product No. 10, Twist 'n Fill (tm) System)

ID NUMBER/U.P.C.: 70-0705-4325-4 00-48011-19214-2 70-0707-1416-0 00-48011-23004-2

ISSUED: FEBRUARY 28, 1997
SUPERSEDES: DECEMBER 18, 1996
DOCUMENT: 06-2712-5

1. INGREDIENT	C.A.S. NO.	PERCENT		
WATER	7732-18-5	40	-	70
HYDROXYALKYL AMINE OXIDES	68478-65-9	15	-	40
ISOPROPYL ALCOHOL	67-63-0	5	-	10
2-(2-ETHYLHEXYLOXY)ETHANOL	1559-35-9	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-(2-ETHYLHEXYLOXY)ETHANOL

2. PHYSICAL DATA

BOILING POINT:..... ca. 200 F
VAPOR PRESSURE:..... N/D
VAPOR DENSITY: 2.1 Air = 1
(Isopropyl alcohol)
EVAPORATION RATE:..... ca. 1 Water = 1
SOLUBILITY IN WATER: complete
SP. GRAVITY:..... ca. 1.0 Water = 1
PERCENT VOLATILE: ca. 75 %
pH: ca. 8
VISCOSITY: < 100 CPS
MELTING POINT..... N/A
APPEARANCE AND ODOR: Liquid, clear, colorless; mild fragrance

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... ca. 102 F
FLAMMABLE LIMITS - LEL: 2 % by vol
(Isopropyl alcohol)

MATERIAL SAFETY
DATA SHEET

MSDS: 3M Brand PRETREATMENT CLEANER CONCENTRATE
(Product No. 10, Twist 'n Fill (tm) System)
FEBRUARY 28, 1997

PAGE: 2 of 6

3. FIRE AND EXPLOSION HAZARD DATA (continued)

FLAMMABLE LIMITS - UEL: 12.7 % by vol
(Isopropyl alcohol)

AUTOIGNITION TEMPERATURE: ... 750 F
(Isopropyl alcohol)

EXTINGUISHING MEDIA:

Water, Carbon dioxide, Dry powder, 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, Oxides of Nitrogen, 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.

MATERIAL SAFETY
DATA SHEET



MSDS: 3M Brand PRETREATMENT CLEANER CONCENTRATE
(Product No. 10, Twist 'n Fill (tm) System)
FEBRUARY 28, 1997

PAGE: 3 of 6

5. ENVIRONMENTAL INFORMATION (continued)

REGULATORY INFORMATION:

Volatile Organic Compounds: ca. 15 %
VOC Less H2O & Exempt Solvents: ca. 15 %

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 components 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 wash skin with soap and large amounts of water. Remove contaminated clothing. If signs/symptoms occur, call a physician. Wash contaminated clothing before reuse and dispose of contaminated shoes.

INHALATION:

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

IF SWALLOWED:

Do not induce vomiting. Drink two glasses of water. Call a physician.

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

MATERIAL SAFETY
 DATA SHEET



MSDS: 3M Brand PRETREATMENT CLEANER CONCENTRATE
 (Product No. 10, Twist 'n Fill (tm) System)
 FEBRUARY 28, 1997

PAGE: 4 of 6

7. PRECAUTIONARY INFORMATION (continued)

following material(s) are recommended: butyl 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. Use in a well-ventilated area. 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: half-mask organic vapor respirator, full-face organic vapor respirator.

PREVENTION OF ACCIDENTAL INGESTION:

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

RECOMMENDED STORAGE:

Store away from heat. Keep container closed when not in use. Keep out of the reach of children.

FIRE AND EXPLOSION AVOIDANCE:

Keep container tightly closed. Keep away from heat, sparks, open flame, and other sources of ignition. Prevent all sources of ignition.

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: 2 FLAMMABILITY: 2 REACTIVITY: 0
 PERSONAL PROTECTION: X (See precautions, section 7.)

INGREDIENTS	EXPOSURE LIMITS		TYPE	AUTH	SKIN*
	VALUE	UNIT			
WATER	NONE	NONE	NONE	NONE	
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	

MATERIAL SAFETY
DATA SHEET

MSDS: 3M Brand PRETREATMENT CLEANER CONCENTRATE
 (Product No. 10, Twist 'n Fill (tm) System)
 FEBRUARY 28, 1997

PAGE: 5 of 6

7. PRECAUTIONARY INFORMATION (continued)

INGREDIENTS	EXPOSURE LIMITS		TYPE AUTH	SKIN*
	VALUE	UNIT		
ISOPROPYL ALCOHOL	500	ppm	STEL OSHA	
2-(2-ETHYLHEXYLOXY)ETHANOL	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:**

Severe Eye Irritation: signs/symptoms can include redness, swelling, pain, tearing, cloudy appearance of the cornea, impaired vision and possible permanently impaired vision.

SKIN CONTACT:

Severe Skin Irritation: signs/symptoms can include redness, swelling, itching, dryness, cracking, blistering, and pain.

INHALATION:

Prolonged or repeated exposure may cause:

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.

IF SWALLOWED:

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

Ingestion may cause:

Gastrointestinal Effects: signs/symptoms generally will include abdominal pain.

OTHER HEALTH HAZARD INFORMATION:

A Product Toxicity Summary Sheet is available.

MATERIAL SAFETY
DATA SHEET

MSDS: 3M Brand PRETREATMENT CLEANER CONCENTRATE
 (Product No. 10, Twist 'n Fill (tm) System)
 FEBRUARY 28, 1997

PAGE: 6 of 6

8. HEALTH HAZARD DATA (continued)

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 OSHA, IARC, or NTP are described in the Health Hazard Data section of this data sheet in accord with the OSHA Hazard Communications Standard, 29 CFR 1910.1200

SECTION CHANGE DATES

HEADING	SECTION CHANGED SINCE	DECEMBER 18, 1996 ISSUE
---------	-----------------------	-------------------------

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

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.