

MATERIAL SAFETY
DATA SHEET**3M**

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 Ready-to-Use
(Product No. 10, Twist 'n Fill (tm) System)

ISSUED: FEBRUARY 28, 1997

SUPERSEDES: DECEMBER 4, 1996

DOCUMENT: 06-2713-3

1. INGREDIENT	C.A.S. NO.	PERCENT
WATER	7732-18-5	> 98
HYDROXYALKYL AMINE OXIDES	68478-65-9	< 1

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.

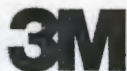
2. PHYSICAL DATA

BOILING POINT:..... ca. 212 F
VAPOR PRESSURE:..... N/D
VAPOR DENSITY:..... N/D
EVAPORATION RATE:..... ca. 1 Water = 1
SOLUBILITY IN WATER: complete
SP. GRAVITY:..... ca. 1 Water = 1
PERCENT VOLATILE: > 99 %
pH: 6-7
VISCOSITY: < 100 CPS
MELTING POINT..... N/A
APPEARANCE AND ODOR: Liquid, colorless; slightly opaque; mild fragrance

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... > 200 F
FLAMMABLE LIMITS - LEL: N/D
FLAMMABLE LIMITS - UEL: N/D
AUTOIGNITION TEMPERATURE: ... N/D
EXTINGUISHING MEDIA:
Water, Carbon dioxide, Dry powder, Foam
SPECIAL FIRE FIGHTING PROCEDURES:
Not applicable
UNUSUAL FIRE AND EXPLOSION HAZARDS:
No unusual fire or explosion hazards are anticipated. See Hazardous
Decomposition section for products of combustion.
NFPA HAZARD CODES: HEALTH: 1 FIRE: 1 REACTIVITY: 0
UNUSUAL REACTION HAZARD: none

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

MATERIAL SAFETY
DATA SHEET

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

PAGE: 2 of 4

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.

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

Observe precautions from other sections. Ventilate area. Contain spill. Cover with absorbent material. Collect spilled material. Clean up residue with water. Place in a closed container.

RECOMMENDED DISPOSAL:

Discharge spent solutions and small quantities (less than 5 gal.(19 L)) to a wastewater treatment system.

ENVIRONMENTAL DATA:

A Product Environmental Data Sheet (PED) is available.

See MSDS for product concentrate.

REGULATORY INFORMATION:

Volatile Organic Compounds: < 1 %.
VOC Less H2O & Exempt Solvents: < 1 %.

Since regulations vary, consult applicable regulations or authorities before disposal. U.S. EPA Hazardous Waste Number = None (Not U.S. EPA Hazardous).

EPCRA HAZARD CLASS:

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

6. SUGGESTED FIRST AID

EYE CONTACT:

Immediately flush eyes with large amounts of water. Get immediate medical attention.

SKIN CONTACT:

Flush skin with large amounts of water. If irritation persists, get medical attention.

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.

MATERIAL SAFETY
DATA SHEET

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

PAGE: 3 of 4

7. PRECAUTIONARY INFORMATION

EYE PROTECTION:

Avoid eye contact. Avoid eye contact with vapor, spray, or mist.

SKIN PROTECTION:

Avoid prolonged or repeated skin contact.

VENTILATION PROTECTION:

Use in a well-ventilated area. Use with adequate dilution ventilation.

RESPIRATORY PROTECTION:

Avoid breathing of vapors, mists or spray.

PREVENTION OF ACCIDENTAL INGESTION:

Wash hands after handling and before eating.

RECOMMENDED STORAGE:

Keep container closed when not in use. Keep out of the reach of children.

FIRE AND EXPLOSION AVOIDANCE:

Keep container tightly closed.

OTHER PRECAUTIONARY INFORMATION:

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.

HMIS HAZARD RATINGS: HEALTH: 0 FLAMMABILITY: 1 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	

* 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:

- AIHA: American Industrial Hygiene Assoc. Workplace Environmental Exposure Level
- NONE: None Established

MATERIAL SAFETY
DATA SHEET

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

PAGE: 4 of 4

8. HEALTH HAZARD DATA

EYE CONTACT:

Mild Eye Irritation: signs/symptoms can include redness, swelling, pain, and tearing.

SKIN CONTACT:

Mild Skin Irritation (after prolonged or repeated contact): signs/symptoms can include redness, swelling, and itching.

INHALATION:

Prolonged or repeated exposure may cause:

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.

SECTION CHANGE DATES

HEADING**SECTION CHANGED SINCE DECEMBER 4, 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.