MATERIAL SAFETY

3M DATA SHEET

3M Center

St. Paul, Minnesota

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DIVISION: ENGINEERED ADHESIVES

TRADE NAME:

3M(TM) Fastbond(TM) Contact Adhesive 2000-NF Blue

ID NUMBER/U.P.C.:

 $62 - 4286 - 7536 - 7 \quad 00 - 21200 - 25436 - 9 \quad 62 - 4286 - 8230 - 6 \quad 00 - 21200 - 30014 - 1$ $62 - 4286 - 8430 - 2 \\ 00 - 21200 - 87965 - 4 \\ 62 - 4286 - 8436 - 9 \\ 00 - 21200 - 25439 - 0$ $62 - 4286 - 9932 - 6 \quad 00 - 21200 - 87969 - 2 \quad 62 - 4286 - 9935 - 9 \quad 00 - 21200 - 87967 - 8 \\$

ISSUED: November 08, 2001 SUPERSEDES: May 16, 2001 DOCUMENT: 06-1862-9

1. INGREDIENT	C.A.S. NO.		
WATER. POLYCHLOROPRENE. GLYCEROL ESTER OF HYDROGENATED ROSIN. PHENOLIC ROSIN. TOLUENE. METHYL ALCOHOL. ZINC OXIDE.	7732-18-5 9010-98-4 65997-13-9 68083-03-4 108-88-3 67-56-1 1314-13-2	40.0 30.0 5 5	- 50.0 - 40.0 - 10.0 - 10.0 < 3.0 < 2.5 < 2

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

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: TOLUENE

METHYL ALCOHOL ZINC OXIDE

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2. PHYSICAL DATA

Z. PHISICAL DATA

BOILING POINT:..... 147 F

(methanol

VAPOR PRESSURE:..... N/A

 VAPOR DENSITY:
 1.1 Air=1

 EVAPORATION RATE:
 1 Ether=1

 SOLUBILITY IN WATER:
 moderate

 SPECIFIC GRAVITY:
 1.1 Water=1

 PERCENT VOLATILE:
 ca. 50 % by wt

pH:..... ca. 10

VISCOSITY:..... 200 - 600 centipoise

APPEARANCE AND ODOR:

liquid, blue, slight odor of ammonia

3. FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA:

Water spray, Carbon dioxide, Dry chemical, 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:

Not applicable.

NFPA HAZARD CODES: HEALTH: 1 FIRE: 0 REACTIVITY: 0

UNUSUAL REACTION HAZARD: none

4. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:

Not applicable.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

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

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4. REACTIVITY DATA (continued)

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon Monoxide and Carbon Dioxide, Hydrogen Chloride, Aldehydes, Ketones.

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. Cover with absorbent material. Collect spilled material. Place in a U.S. DOT-approved container.

RECOMMENDED DISPOSAL:

Incinerate in an industrial or commercial facility in the presence of a combustible material. Dispose of completely cured (or polymerized) material in a sanitary landfill.

ENVIRONMENTAL DATA:

U.S. EPA Toxicity Characteristics Leaching Procedure,(TCLP),Method 1311, 40 CFR Part 261, Appendix 2 was run on properly mixed Fastbond 2000 and Spray Activator #1 with the following results: Arsenic <0.2 mg/L, Barium 0.10 mg/L, Cadmium <0.01 mg/L, Chromium <0.05 mg/L, Lead <0.5 mg/L, Mercury <0.2 ug/L, Selenium<0.3 mg/L, Silver<0.05 mg/L, Zinc 53 mg/L.

REGULATORY INFORMATION:

Volatile Organic Compounds: 37 gms/liter tested per EPA method 24. Volatile Organic Compounds: .43 lb/gal tested per EPA method 24. Volatile Organic Compounds: 4.68 % by wt tested per EPA method 24. VOC Less H2O & Exempt Solvents: 77 gms/liter tested per EPA method 24. Hazardous Air Pollutants: 0.09 #/# solids calculated. Hazardous Air Pollutants: 4.68 % by wt calculated.

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: No

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.

7. PRECAUTIONARY INFORMATION

EYE PROTECTION:

Avoid eye contact with vapor, spray, or mist. Wear vented goggles. Wear safety glasses with side shields.

SKIN PROTECTION:

Avoid prolonged or repeated skin contact. Wear appropriate gloves when handling this material. A pair of gloves made from the following material(s) are recommended: nitrile rubber, polyethylene/ethylene vinyl alcohol, polytetrafluoroethylene (Teflon), fluoroelastomer (Viton).

RECOMMENDED VENTILATION:

Do not use in a confined area or areas with little or no air movement. Conduct air monitoring to determine adequacy of ventilation. Provide sufficient ventilation to maintain emissions below recommended exposure limits. If exhaust ventilation is not adequate, use appropriate respiratory protection. Provide ventilation adequate to control vapor concentrations below recommended exposure limits and/or control spray or mist.

RESPIRATORY PROTECTION:

Avoid prolonged breathing of vapors. Avoid prolonged breathing of spray or mists.

PREVENTION OF ACCIDENTAL INGESTION:

Do not ingest.

RECOMMENDED STORAGE:

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

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

7. PRECAUTIONARY INFORMATION (continued)

FIRE AND EXPLOSION AVOIDANCE:

Keep container tightly closed.

OTHER PRECAUTIONARY INFORMATION:

Not intended for consumer sale or use.

The Threshold Limit Value for total airborne particulate is 10 mg/m3. The Threshold Limit Value for respirable airborne particulates is 3mg/m3. The results of air monitoring conducted by 3M indicate that spraying two and one half gallons of adhesive over a 30 minute period in an area with limited ventilation results in an exposure to toluene of 1.5 ppm.

EXPOSURE LIMITS

INGREDIENT		UNIT			SKIN*		
WATER	NONE	NONE		NONE			
POLYCHLOROPRENE	NONE	NONE	NONE	NONE			
GLYCEROL ESTER OF HYDROGENATED							
ROSIN	NONE	NONE	NONE	NONE			
PHENOLIC ROSIN	NONE	NONE	NONE	NONE			
TOLUENE	50	PPM	TWA	ACGIH	Y		
TOLUENE	100	PPM	TWA	OSHAV			
	OSHA	VACATED P	EL				
TOLUENE	150	PPM	STEL	OSHAV			
	OSHA	VACATED P	EL				
TOLUENE	200	PPM	TWA	OSHA			
TOLUENE	300	PPM	CEIL	OSHA			
TOLUENE	75	PPM	STEL	CMRG	Y		
METHYL ALCOHOL	200	PPM	TWA	ACGIH	Y		
METHYL ALCOHOL	250	PPM	STEL	ACGIH	Y		
METHYL ALCOHOL	200	PPM	TWA	OSHA	Y		
METHYL ALCOHOL	250	PPM	STEL	OSHA	Y		
ZINC OXIDE	10	MG/M3	TWA	ACGIH			
	AS DUST						
ZINC OXIDE	10	MG/M3	TWA	OSHAV			
	AS D	UST					
	OSHA VACATED PEL						
ZINC OXIDE	5	MG/M3	TWA	ACGIH			
	as fi	ume					
ZINC OXIDE	10	MG/M3	STEL	ACGIH			
	as fi	ume					
ZINC OXIDE	5	MG/M3	TWA	OSHA			
	as fi	ume					
ZINC OXIDE	10	MG/M3	STEL	OSHAV			
	as fi	ume					
	OSHA VACATED PEL						
ZINC OXIDE							

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EXPOSURE LIMITS (continued)

INGREDIENT VALUE UNIT TYPE AUTH SKIN* AS TOTAL DUST ZINC OXIDE..... 5 MG/M3 TWA OSHA RESPIRABLE

* 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
- CMRG: Chemical Manufacturer Recommended Exposure Guidelines
- OSHA: Occupational Safety and Health Administration
- OSHAV: Occupational Safety and Health Administration Vacated PEL. Vacated Permissible Exposure Limits (PEL) are enforced as the OSHA PEL in some states. Check with your local regulatory authority.
- NONE: None Established

8. HEALTH HAZARD DATA

EYE CONTACT:

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

SKIN CONTACT:

Contact with the skin during product use is not expected to result in significant irritation.

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

INHALATION:

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

IF SWALLOWED:

Ingestion may cause:

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

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.

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8. HEALTH HAZARD DATA (continued)		
Ingestion may cause:		
Blindness.		
REPRODUCTIVE/DEVELOPMENTAL TOXINS: WARNING: Contains a chemical which can cause birth defects. (108-883)	_	
SECTION CHANGE DATES		

PRECAUTIONARY INFO. SECTION CHANGED SINCE May 16, 2001 ISSUE

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

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