

MATERIAL SAFETY
 DATA SHEET



DIVISION: AUTOMOTIVE TRADES DIVISION
 TRADE NAME:
 3M WINDO-WELD Primerless Super Fast Urethane P/N 08609
 3M I.D. NUMBER: 62-5297-5209-9

ISSUED: DECEMBER 28, 1990
 SUPERSEDES: JULY 17, 1990
 DOCUMENT: 11-4216-5

1. INGREDIENT	C.A.S. NO.	PERCENT	EXPOSURE		LIMITS	
			VALUE	UNIT	TYPE	AUTH
urethane prepolymer	68610-33-3	40.0 - 50.0	NONE	NONE	NONE	NONE
naphthol spirits	64742-48-9	10.0 - 20.0	100	ppm	TWA	3M
talc	14807-96-6	10.0 - 20.0	2	mg/m3	TWA	ACGIH
hydrogenated terphenyl	61788-32-7	10.0 - 20.0	0.5	ppm	TWA	ACGIH
amorphous silica	7631-86-9	1.0 - 10.0	3	mg/m3	TWA	ACGIH
carbon black	1333-86-4	1.0 - 10.0	3.5	mg/m3	TWA	ACGIH
silane isocyanate	85702-90-5	1.0 - 10.0	NONE	NONE	NONE	NONE
acrylate polymer - N.J. Trade Secret (T.S.) Registry No. 04499600-5575P	T.S.	1.0 - 10.0	NONE	NONE	NONE	NONE
zinc oxide	1314-13-2	1.0 - 10.0	10	mg/m3	TWA	ACGIH
p,p'-methylenebis(phenyl isocyanate)	101-68-8	< 0.5	0.005	ppm	TWA	ACGIH

SOURCE OF EXPOSURE LIMIT DATA:

- ACGIH: American Conference of Governmental Industrial Hygienists
- 3M: 3M Medical Department Guideline
- NONE: None Established

THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICAL OR CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372:

zinc oxide
 p,p'-methylenebis(phenyl
 isocyanate)

2. PHYSICAL DATA

BOILING POINT:..... 240.00 F
 (naphthol spirits)
 VAPOR PRESSURE:..... N/D
 VAPOR DENSITY:..... 2.50 Air = 1
 EVAPORATION RATE:..... 7.10 Ether = 1
 SOLUBILITY IN WATER:..... Nil
 SP. GRAVITY:..... 1.100 Water = 1
 PERCENT VOLATILE:..... 32.00 %
 VOLATILE ORGANICS:..... 140.00 gm/l
 pH:..... N/A
 VISCOSITY:..... Thixotropic
 APPEARANCE AND ODOR: Black, paste, naphthol spirits odor

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... 56.00 F T.C.C.
 FLAMMABLE LIMITS - LEL:..... 0.90 %
 FLAMMABLE LIMITS - UEL:..... 6.00 %
 AUTOIGNITION TEMPERATURE: ... N/D

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

3M General Offices
3M Center
St. Paul, Minnesota 55144-1000
612/733-1110
Duns No.: 00-617-3082

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3. FIRE AND EXPLOSION HAZARD DATA (continued)

EXTINGUISHING MEDIA:

CO2, foam, dry chemical, water

SPECIAL FIRE FIGHTING PROCEDURES:

Fire fighters should be equipped with self-contained breathing apparatus when fighting fires involving this material.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Flammable. Overheated, closed containers adjacent to fire could explode due to pressure buildup.

NFPA-HAZARD-CODES: HEALTH 3 FIRE 3 REACTIVITY 1

UNUSUAL REACTION HAZARD: None

4. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS TO AVOID:

Reacts with water (liquid and atmospheric), amines and alcohol -- not a hazard.

HAZARDOUS POLYMERIZATION: Will Not Occur

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition of polyurethane or polyisocyanurate foams at temperatures below their ignition points may generate isocyanate vapors and other irritating volatile products.

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

Extinguish all ignition sources. Ventilate the area. Observe the precautions from other sections. Collect spilled material. Place in a U.S. Department of Transportation - approved metal container, and seal.

RECOMMENDED DISPOSAL:

Incinerate bulk product after mixing with flammable material in a licensed hazardous waste facility. Disposal should be in accordance with applicable regulations. U.S. EPA Hazardous Waste No.: D001 (Ignitable).

ENVIRONMENTAL DATA:

Volatile Organic Compound (VOC):

Maximum VOC = 140 grams/liter.

Maximum VOC minus Water minus Exempt Solvents = 140 grams/liter.

VOC's were calculated according to Rule 443.1 of the South Coast Air Quality Management District (SCAQMD).

SARA HAZARD CLASS:

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

6. SUGGESTED FIRST AID

EYE CONTACT:

Immediately flush eyes with plenty of water for at least 10 minutes

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6. SUGGESTED FIRST AID (continued)

and call a physician.

SKIN CONTACT:

Wash thoroughly with soap and water. Call a physician if irritation persists.

INHALATION:

Remove person to fresh air. Call a physician.

IF SWALLOWED:

Do not induce vomiting. Immediately call a physician or poison control center.

OTHER FIRST AID:

NONE

7. PRECAUTIONARY INFORMATION

Keep product and its vapors away from heat, sparks, flame and other sources of ignition. The vapors released by the product can be ignited easily. Avoid breathing of vapors. Use only in areas with sufficient ventilation to maintain vapors below recommended exposure limits. Provide local exhaust ventilation if necessary. Wear an air-supplied respirator if ventilation is inadequate. Prevent eye and skin contact. Wear personal protective equipment (e.g., impervious gloves and eye protection) when handling product. Keep container closed when not in use. Wash contaminated clothing before reuse. Keep out of the reach of children.

ADDITIONAL EXPOSURE LIMITS

INGREDIENTS	EXPOSURE LIMITS		LIMITS	
	VALUE	UNIT	TYPE	AUTH
naphthol spirits	300	ppm	TWA	CMRG
naphthol spirits	1900	mg/m3	TWA	CMRG
talc	2	mg/m3	TWA	OSHA
hydrogenated terphenyl	4.9	mg/m3	TWA	ACGIH
hydrogenated terphenyl	0.5	ppm	TWA	OSHA
hydrogenated terphenyl	5	mg/m3	TWA	OSHA
amorphous silica	6	mg/m3	TWA	ACGIH
carbon black	3.5	mg/m3	TWA	OSHA
zinc oxide	10	mg/m3	TWA	OSHA
p,p'-methylenebis(phenyl isocyanate)	0.005	ppm	TWA	ACGIH
p,p'-methylenebis(phenyl isocyanate)	0.005	ppm	TWA	3M
p,p'-methylenebis(phenyl isocyanate)	0.02	ppm	STEL	3M
p,p'-methylenebis(phenyl isocyanate)	0.051	mg/m3	TWA	ACGIH
p,p'-methylenebis(phenyl isocyanate)	0.02	ppm	CEIL	OSHA
p,p'-methylenebis(phenyl isocyanate)	0.2	mg/m3	CEIL	OSHA

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7. PRECAUTIONARY INFORMATION (continued)

SOURCE OF EXPOSURE LIMIT DATA:

- ACGIH: American Conference of Governmental Industrial Hygienists
- OSHA: Occupational Safety and Health Administration
- 3M: 3M Medical Department Guideline
- CMRG: Chemical Manufacture Recommended Guidelines

8. HEALTH HAZARD DATA

EYE CONTACT: May cause eye irritation.

SKIN CONTACT: May cause irritation. The isocyanate termination of the urethane polymer may cause allergic contact dermatitis in susceptible individuals. Silane isocyanate is bound and present in such low concentrations that it is not expected to present a hazard through skin absorption.

INHALATION: Vapor overexposure may cause respiratory system irritation and temporary nervous system impairment (light-headedness). The isocyanate termination of the urethane polymer may cause allergic reaction in susceptible individuals. Symptoms may include headache, weakness and fatigue. The silane isocyanate may produce blood changes. Silane isocyanate is bound and present in such small quantities that these effects are not expected.

INGESTION: May cause digestive system irritation and temporary nervous system impairment. Symptoms may include nausea and vomiting.

SECTION CHANGE DATES

HEADING	SECTION CHANGED SINCE	JULY 17, 1990 ISSUE
INGREDIENTS	SECTION CHANGED SINCE	JULY 17, 1990 ISSUE

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The information on this Data Sheet represents our current data and best opinion as to the proper use in handling of this material under normal conditions. Any use of the material which is not in conformance with this Data Sheet or which involves using the material in combination with any other material or any other process is the responsibility of the user.