

Duns No.: 00-617-3082

MATERIAL SAFETY
 DATA SHEET



DIVISION: ADHESIVES, COATINGS AND SEALERS
 TRADE NAME:
 3M WINDO-WELD(TM) Urethane Sealer Part No. 08607
 3M I.D. NUMBER: 62-5241-5209-7

ISSUED: DECEMBER 30, 1989
 SUPERSEDES: APRIL 13, 1989
 DOCUMENT: 10-5363-6

1. INGREDIENT	C.A.S. NO.	PERCENT	EXPOSURE		LIMITS	
			VALUE	UNIT	TYPE	AUTH
urethane prepolymer	9057-91-4	40.0 - 50.0	NONE	NONE	NONE	NONE
talc	14807-96-6	20.0 - 30.0	2	mg/m3	TWA	ACGIH
naphthol spirits	64742-48-9	1.0 - 10.0	300	ppm	TWA	CMRG
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
zinc oxide	1314-13-2	1.0 - 10.0	10	mg/m3	TWA	ACGIH
coal tar pitch	65996-93-2	1.0 - 10.0	NONE	NONE	NONE	NONE
glycerol ester of hydrogenated rosin	65997-13-9	1.0 - 10.0	NONE	NONE	NONE	NONE
toluene	108-88-3	1.0 - 10.0	100	ppm	TWA	ACGIH
ethyl acetate	141-78-6	1.0 - 10.0	400	ppm	TWA	ACGIH
heptane	142-82-5	1.0 - 10.0	400	ppm	TWA	ACGIH
synthetic polymer - N.J. Trade Secret (T.S.) Registry No. 04499600-5644P	T.S.	< 1.0	NONE	NONE	NONE	NONE
toluene diisocyanate	584-84-9	< 0.6	0.005	ppm	TWA	ACGIH

SOURCE OF EXPOSURE LIMIT DATA:

- ACGIH: American Conference of Governmental Industrial Hygienists
- CMRG: Chemical Manufacture Recommended Guidelines
- 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
- toluene
- toluene diisocyanate

2. PHYSICAL DATA

BOILING POINT:.....	171.00 F
(ethyl acetate)	
VAPOR PRESSURE:.....	72.4000 mmHg
@ 68F	
VAPOR DENSITY:	> 3.00 Air = 1
EVAPORATION RATE:.....	2.00 Ether = 1
SOLUBILITY IN WATER:	Very slight
SP. GRAVITY:.....	1.240 Water = 1
PERCENT VOLATILE:	15.00 %
VOLATILE ORGANICS:	192.00 gm/l
pH:	N/D
VISCOSITY:	N/D
APPEARANCE AND ODOR:	Black, paste, solvent odor

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

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3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... 50.00 F

(naphthol spirits)

FLAMMABLE LIMITS - LEL: 0.90 %

FLAMMABLE LIMITS - UEL: 6.00 %

AUTOIGNITION TEMPERATURE: ... N/D

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 a 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 alcohols -- not a hazard.

HAZARDOUS POLYMERIZATION: Will Not Occur

HAZARDOUS DECOMPOSITION PRODUCTS:

CO, CO₂ and nitrogen oxides when subjected to excessive heat or flame.

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 = 192 grams/liter.

Maximum VOC minus Water minus Exempt Solvents = 192 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

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6. SUGGESTED FIRST AID

EYE CONTACT:

Immediately flush eyes with plenty of water for at least 10 minutes and call a physician.

SKIN CONTACT:

Wash thoroughly with soap and water.

INHALATION:

Remove to uncontaminated air. If breathing is difficult, 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 all other sources of ignition. The vapors released by the product can be ignited easily. Avoid breathing vapors. Use only in areas with sufficient ventilation to maintain vapor concentrations below recommended exposure limits. Use local exhaust ventilation if necessary. Wear a respirator approved for isocyanate vapors (e.g., air-supplied) if the ventilation is inadequate. Avoid eye and skin contact. Use personal protective equipment when handling this product. Wash contaminated clothing before reuse. Keep container closed when not in use. Keep out of the reach of children.

ADDITIONAL EXPOSURE LIMITS

INGREDIENTS	EXPOSURE LIMITS		LIMITS	
	VALUE	UNIT	TYPE	AUTH
talc	2	mg/m3	TWA	ACGIH
naphthol spirits	1900	mg/m3	TWA	CMRG
amorphous silica	6	mg/m3	TWA	ACGIH
amorphous silica	20	mppcf	TWA	OSHA
carbon black	3.5	mg/m3	TWA	OSHA
toluene	375	mg/m3	TWA	ACGIH
toluene	150	ppm	STEL	ACGIH
toluene	560	mg/m3	STEL	ACGIH
toluene	300	ppm	CEIL	OSHA
toluene	200	ppm	TWA	OSHA
toluene	500	ppm	STEL	OSHA
ethyl acetate	1400	mg/m3	TWA	ACGIH
ethyl acetate	400	ppm	TWA	OSHA
ethyl acetate	1400	mg/m3	TWA	OSHA
heptane	1600	mg/m3	TWA	ACGIH
heptane	500	ppm	STEL	ACGIH
heptane	2000	mg/m3	STEL	ACGIH
heptane	400	ppm	TWA	OSHA

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

3M Center
St. Paul, Minnesota 55144-1000
612/733 1110

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7. PRECAUTIONARY INFORMATION (continued)**ADDITIONAL EXPOSURE LIMITS**

INGREDIENTS	EXPOSURE LIMITS		LIMITS	
	VALUE	UNIT	TYPE	AUTH
heptane	1600	mg/m ³	TWA	OSHA
heptane	500	ppm	STEL	OSHA
heptane	2000	mg/m ³	STEL	OSHA
toluene diisocyanate	0.04	mg/m ³	TWA	ACGIH
toluene diisocyanate	0.02	ppm	STEL	ACGIH
toluene diisocyanate	0.15	mg/m ³	STEL	ACGIH
toluene diisocyanate	0.02	ppm	CEIL	OSHA
toluene diisocyanate	0.14	mg/m ³	CEIL	OSHA

SOURCE OF EXPOSURE LIMIT DATA:

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

8. HEALTH HAZARD DATA

EYE CONTACT: Direct contact with the paste may cause severe eye irritation.

SKIN CONTACT: Direct contact may cause irritation. Toluene diisocyanate (T.D.I.) may cause an allergic skin reaction in certain individuals.

INHALATION: Vapor overexposure may cause irritation to the respiratory system. Toluene diisocyanate (T.D.I.) may cause breathing difficulty, and may cause asthma-like respiratory response in certain individuals at very low concentrations. T.D.I. and toluene overexposure may cause headache, lung congestion, edema, nausea and vomiting. Repeated or extreme overexposure to toluene vapors may cause nervous system damage. The concentration of toluene in the mixture is low. A lifetime inhalation study in mice and rats found no increase in cancer from TDI exposure. IARC has concluded that there is inadequate evidence for the carcinogenicity of TDI in humans. NTP, in its 4th annual report (Sept., 1986), designates TDI as a substance that may "...reasonably be anticipated to be carcinogenic" based on studies in which TDI was fed to lab animals. The results of this feeding study are of questionable relevance to the normal handling and use of this product.

INGESTION: May cause digestive system irritation. Toluene ingestion may cause nausea, vomiting, liver and nervous system impairment. Toluene, though, is present at a very low concentration.

NOTE: Coal tar pitch has been found to cause photosensitization of skin on prolonged and repeated contact. However, because it is present in such a small quantity, this effect would not be expected to occur with the use of this product.

NOTE: Coal tar pitch is considered a cancer hazard. Human skin

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

3M General Offices

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03-10
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8. HEALTH HAZARD DATA (continued)

cancers have been attributed to topical exposures (IARC human carcinogen 1; ACGIH confirmed human carcinogen A1).

SECTION CHANGE DATES

ENVIRON. DATA SECTION CHANGED SINCE APRIL 13, 1989 ISSUE

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

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.

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

03-11
 2603

MATERIAL SAFETY
 DATA SHEET



DIVISION: AUTOMOTIVE TRADES
 TRADE NAME:
 WINDO-WELD(TM) Super Fast Urethane Primer Part No. 08608
 3M I.D. NUMBER: 62-5759-0109-5

ISSUED: APRIL 12, 1990
 SUPERSEDES: JUNE 15, 1989
 DOCUMENT: 10-5295-0

1. INGREDIENT	C.A.S. NO.	PERCENT	EXPOSURE		LIMITS	
			VALUE	UNIT	TYPE	AUTH
methyl ethyl ketone	78-93-3	30.0 - 40.0	200	ppm	TWA	ACGI
silane isocyanate	85702-90-5	10.0 - 20.0	NONE	NONE	NONE	NONE
aromatic/aliphatic polyisocyanate copolymer	63368-95-6	10.0 - 20.0	NONE	NONE	NONE	NONE
carbon black	1333-86-4	10.0 - 20.0	3.5	mg/m ³	TWA	ACGI
polyester polymer	35176-78-4	10.0 - 20.0	NONE	NONE	NONE	NONE
toluene	108-88-3	1.0 - 10.0	100	ppm	TWA	ACGI
ethyl acetate	141-78-6	1.0 - 10.0	400	ppm	TWA	ACGI
butyl acetate	123-86-4	1.0 - 10.0	150	ppm	TWA	ACGI
xylene	1330-20-7	1.0 - 10.0	100	ppm	TWA	ACGI
toluene diisocyanate	584-84-9	0.1 - 1.0	0.005	ppm	TWA	ACGI

SOURCE OF EXPOSURE LIMIT DATA:

- ACGIH: American Conference of Governmental Industrial Hygienists
- NONE: None Established

2. PHYSICAL DATA

BOILING POINT:..... 175.00 F
 (MEK)
 VAPOR PRESSURE:..... 80.0000 mmHg
 @ 68F
 VAPOR DENSITY: 3.00 Air = 1
 EVAPORATION RATE:..... 2.70 Ether = 1
 SOLUBILITY IN WATER: Very slight
 SP. GRAVITY:..... 1.050 Water = 1
 PERCENT VOLATILE: 62.00 %
 VOLATILE ORGANICS: 609.00 gm/l
 pH: N/D
 VISCOSITY: 200.0 CPS
 APPEARANCE AND ODOR: Black, liquid, characteristic MEK solvent odor

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... 20.00 F
 FLAMMABLE LIMITS - LEL: 1.20 %
 FLAMMABLE LIMITS - UEL: 11.50 %
 AUTOIGNITION TEMPERATURE: ... N/D
 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:
 Extremely Flammable. Overheated, closed containers adjacent to a
 fire could explode due to pressure buildup.
 NFPA-HAZARD-CODES: HEALTH 3 FIRE 4 REACTIVITY 1
 UNUSUAL REACTION HAZARD: None

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