

MATERIAL SAFETY 3M  
 DATA SHEET 3M Center  
 St. Paul, Minnesota  
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DIVISION: ENGINEERED ADHESIVES

TRADE NAME:

SCOTCH-WELD (TM) AF-163-2 Structural Adhesive Film

ID NUMBER/U.P.C.:

FS-9100-0009-0	-	-	-	FS-9100-0015-7	-	-	-
FS-9100-0017-3	-	-	-	FS-9100-0018-1	-	-	-
FS-9100-0042-1	-	-	-	FS-9100-0043-9	-	-	-
FS-9100-0044-7	-	-	-	FS-9100-0045-4	-	-	-
FS-9100-0046-2	-	-	-	FS-9100-0048-8	-	-	-
FS-9100-0049-6	-	-	-	FS-9100-0510-7	-	-	-
FS-9100-0517-2	-	-	-	FS-9100-0518-0	-	-	-
FS-9100-0641-0	-	-	-	FS-9100-0642-8	-	-	-
FS-9100-0737-6	-	-	-	FS-9100-0738-4	-	-	-
FS-9100-0739-2	-	-	-	FS-9100-0740-0	-	-	-
FS-9100-0741-8	-	-	-	FS-9100-0742-6	-	-	-
FS-9100-0743-4	-	-	-	FS-9100-0744-2	-	-	-
FS-9100-0816-2	-	-	-	FS-9100-0821-8	-	-	-
FS-9100-0847-3	-	-	-	FS-9100-0888-7	-	-	-
FS-9100-1354-9	-	-	-	FS-9100-1355-6	-	-	-
FS-9100-1356-4	-	-	-	FS-9100-1357-2	-	-	-
FS-9100-1358-0	-	-	-	FS-9100-1359-8	-	-	-
FS-9100-1360-6	-	-	-	FS-9100-1361-4	-	-	-
FS-9100-1362-2	-	-	-	FS-9100-1363-0	-	-	-
FS-9100-1364-8	-	-	-	FS-9100-1365-5	-	-	-
FS-9100-1366-3	-	-	-	FS-9100-1367-1	-	-	-
FS-9100-1368-9	-	-	-	FS-9100-1369-7	-	-	-
FS-9100-1370-5	-	-	-	FS-9100-1371-3	-	-	-
FS-9100-1372-1	-	-	-	FS-9100-1373-9	-	-	-
FS-9100-1374-7	-	-	-	FS-9100-1375-4	-	-	-
FS-9100-1380-4	-	-	-	FS-9100-1606-2	-	-	-

ISSUED: May 16, 2001

SUPERSEDES: October 16, 1998

DOCUMENT: 05-9295-6

1. INGREDIENT	C.A.S. NO.	PERCENT
POLYMERIC EPOXY REACTION PRODUCT (M.W. >700) - TRADE SECRET (T.S.).....	TradeSecret	40.0 - 70.0
EPOXY RESIN.....	1675-54-3	10.0 - 30.0
DICYANDIAMIDE.....	461-58-5	3.0 - 7.0

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

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1. INGREDIENT	C.A.S. NO.	PERCENT	
EPOXY RESIN.....	25068-38-6	3.0	- 7.0
N,N'-(METHYL-1,3-PHENYLENE)BIS(N',N'- DIMETHYLUREA).....	17526-94-2	0.5	- 1.5
1,4-BIS[(2,3- EPOXYPROPOXY)METHYL]CYCLOHEXANE.....	14228-73-0		1.5
NON-VOLATILE AMIDE - TRADE SECRET (T.S.).....	TradeSecret	0.5	- 1.5

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2. PHYSICAL DATA

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BOILING POINT:..... N/A  
VAPOR PRESSURE:..... N/A  
VAPOR DENSITY:..... N/A  
EVAPORATION RATE:..... N/A  
SOLUBILITY IN WATER:..... Not soluble  
SPECIFIC GRAVITY:..... N/A  
PERCENT VOLATILE:..... 0.00 % by wt  
pH:..... N/A  
VISCOSITY:..... N/A  
MELTING POINT:..... N/D

APPEARANCE AND ODOR:

Film, unsupported solid film, odorless.

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3. FIRE AND EXPLOSION HAZARD DATA

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FLASH POINT:..... N/A  
FLAMMABLE LIMITS - LEL:..... N/A  
FLAMMABLE LIMITS - UEL:..... N/A  
AUTOIGNITION TEMPERATURE:..... N/D

EXTINGUISHING MEDIA:

Water, 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: 1  
UNUSUAL REACTION HAZARD: none

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4. REACTIVITY DATA  
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STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:  
Heat.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:  
Carbon Monoxide and Carbon Dioxide, Oxides of Nitrogen, Hydrogen  
Bromide

Trace amounts of bromine.

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5. ENVIRONMENTAL INFORMATION  
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SPILL RESPONSE:  
Not applicable.

Solid film.

RECOMMENDED DISPOSAL:  
Incinerate uncured waste in an industrial or commercial incinerator.  
Dispose of completely cured (or polymerized) material in a sanitary  
landfill.

ENVIRONMENTAL DATA:  
Not determined.

REGULATORY INFORMATION:  
Volatile Organic Compounds: N/A.  
VOC Less H2O & Exempt Solvents: N/A.

Since regulations vary, consult applicable regulations or authorities  
before disposal.

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

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6. SUGGESTED FIRST AID  
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EYE CONTACT:  
Immediately flush eyes with large amounts of water. Get immediate  
medical attention.

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6. SUGGESTED FIRST AID (continued)  
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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.

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7. PRECAUTIONARY INFORMATION  
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EYE PROTECTION:

Avoid eye contact. Wear vented goggles. Wear safety glasses with side shields.

SKIN PROTECTION:

Avoid skin contact. Wear appropriate gloves when handling this material. A pair of gloves made from the following material(s) are recommended: polyethylene/ethylene vinyl alcohol, polyvinyl alcohol.

RECOMMENDED VENTILATION:

Use with appropriate local exhaust ventilation. Provide appropriate local exhaust for grinding, cutting or sanding cured material. Curing ovens must be exhausted to outdoors or to a suitable emission control device. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION:

Avoid breathing of vapors created during the cure cycle. Avoid breathing of dust created by cutting, sanding or grinding. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: half-mask dust respirator

Use water as a lubricant on machining tools to eliminate dust and improve machinability of cured parts.

PREVENTION OF ACCIDENTAL INGESTION:

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

RECOMMENDED STORAGE:

Store at temperatures below 0 deg. F (-18 deg. C). Allow material to return to room temperature before use. Keep out of the reach of children.

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7. PRECAUTIONARY INFORMATION (continued)  
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FIRE AND EXPLOSION AVOIDANCE:  
Not applicable.

EXPOSURE LIMITS

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
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POLYMERIC EPOXY REACTION PRODUCT (M.W. >700) - TRADE SECRET (T.S.)..	NONE	NONE	NONE	NONE	NONE
EPOXY RESIN.....	NONE	NONE	NONE	NONE	NONE
DICYANDIAMIDE.....	NONE	NONE	NONE	NONE	NONE
EPOXY RESIN.....	NONE	NONE	NONE	NONE	NONE
N,N'-(METHYL-1,3-PHENYLENE)BIS(N', N'-DIMETHYLUREA).....	NONE	NONE	NONE	NONE	NONE
1,4-BIS[(2,3- EPOXYPROPOXY)METHYL]CYCLOHEXANE....	NONE	NONE	NONE	NONE	NONE
NON-VOLATILE AMIDE - TRADE SECRET (T.S.).....	NONE	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:  
- NONE: None Established

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8. HEALTH HAZARD DATA  
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EYE CONTACT:

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

Vapors from heated material may cause eye irritation.

Dust created by cutting, grinding, sanding, or machining may cause eye irritation.

SKIN CONTACT:

Allergic Skin Reaction: signs/symptoms can include redness, swelling, blistering, and itching.

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

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8. HEALTH HAZARD DATA (continued)  
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INHALATION:

Vapors of heated material may cause respiratory system irritation.

Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system.

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.

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SECTION CHANGE DATES  
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HEADING SECTION CHANGED SINCE October 16, 1998 ISSUE

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