\_\_\_\_\_ SAFETY DATA SHEET \_\_\_\_\_ Issue date : 04/10/2007 Supersedes date : 21/08/2007 Document id: 11-1478-4Issue dateVersion: 12.00Supersedes date 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING \_\_\_\_\_ 1.1 Tradename: 3M Scotch-Weld DP-190 Structural Adhesive, Grey 1.2 Intended Use of Product: A structural adhesive to make strong bonded joints equivalent to welding or mechanical fastenings. 1.3 3M Product ID: FS-9100-4023-7, FS-9100-3383-6 1.4 Contact Address: 3M UK PLC 3M Ireland 3M Centre, Cain Road, 3M House, Adelphi Centre, Bracknell, Berkshire, RG12 8HT Dun Laoghaire, Co. Dublin 1.5 E-mail Address and Emergency Contact Number: tox.uk@mmm.com +44 (0)1344 858 000 2 HAZARDS IDENTIFICATION \_\_\_\_\_ Risk Phrases: R41 Risk of serious damage to eyes.
R38 Irritating to skin.
R43 May cause sensitisation by skin contact.
R51/53 Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. 3 COMPOSITION/INFORMATION ON INGREDIENTS -----Ingredient name and classification CAS number Percentage \_\_\_\_\_ --- Not determined PART A (accelerator): Fatty acids, C18-unsaturated, 68911-25-1 60.0 - 70.0dimers, polymers with 3,3'-oxybis (ethyleneoxy)bis(propylamine) 3M Classification: Xi: R38-41-43 1332-58-7 35.0 - 45.0 Kaolin EU Number: EINECS 310-194-1 1333-86-4 < 0.1 Carbon black EU Number: EINECS 215-609-9 \_\_\_\_ PART B (base):---Not determinedEpoxy resin (reaction product25068-38-670.0 - 80.0

	MW< EU	ohenol A - epichlorhydrin, 700) J Number: NLP 500-033-5 J Classification: Xi: R36/38; R43; N: R51-53			
4	FIRS	ST-AID MEASURES			
	4.1	Eye Contact: Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.			
	4.2	Skin Contact: Immediately wash skin with soap and large amounts of water. Remove contaminated clothing. If signs/symptoms occur, call a medical doctor. Wash contaminated clothing before reuse and dispose of contaminated shoes.			
	4.3	Inhalation: If signs or symptoms occur, remove person to fresh air. If signs/symptoms continue, call a medical doctor.			
	4.4	Ingestion: Do not induce vomiting. Drink two glasses of water. Call a medical doctor.			
5	FIRE	E-FIGHTING MEASURES			
	5.1	Suitable Extinguishing Media: Water. Carbon dioxide. Dry chemical. Foam.			
	5.2	Unsuitable Extinguishing Media: Not specified.			
	5.3	Exposure Hazards: Not determined.			
		Combustion Products from Fire: Not determined.			
	5.5	Fire-Fighting Procedures: Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, tunic and trousers (leggings), bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.			
	5.6	Special Instructions: None known.			
6	ACCI	IDENTAL RELEASE MEASURES			
	6.1	Personal Precautions: Please observe precautions from other sections of this MSDS.			
	6.2	Methods for Cleaning up: Cover with absorbent material. Collect as much of the spilled material as possible. Place in an approved metal container.			

7 HANDLING AND STORAGE \_\_\_\_\_ 7.1 Precautions for Safe Handling: - Fire Prevention: Not applicable. 7.2 Precautions for Safe Storage: - Incompatible Materials/Conditions: Store away from heat. 8 EXPOSURE CONTROLS/PERSONAL PROTECTION -----8.1 Recommended Ventilation: Provide ventilated enclosure for heat curing. Provide appropriate local exhaust for cutting, grinding, sanding or machining. Use in a well-ventilated area. If exhaust ventilation is not adequate, use appropriate respiratory protection. 8.2 Exposure Limits: Kaolin (1332-58-7) HSE WEL TWA: 2 mg/m3 (respirable dust) Carbon black (1333-86-4) HSE WEL TWA: 3.5 mg/m3 HSE WEL STEL: 7 mg/m3 8.3 Exposure Controls: 8.3.1 Eye Protection: Avoid eye contact. Indirect vented goggles. Safety glasses with side shields. 8.3.2 Hand Protection: Wear appropriate gloves when handling this material. The following glove material(s) are recommended: Butyl rubber. Polyethylene or ethylene vinyl alcohol. 8.3.3 Skin Protection: Avoid skin contact. 8.3.4 Respiratory Protection: Avoid breathing of vapours created during the cure cycle. Avoid breathing of dust created by cutting, sanding, grinding or machining. Select one of the following approved respirators based on airborne concentration of contaminants and in accordance with regulations: Half-mask dust respirator. 8.3.5 Ingestion: Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Do not ingest. Keep out of the reach of children. 9 PHYSICAL AND CHEMICAL PROPERTIES \_\_\_\_\_

- Appearance and Odour:

Grey to white paste, with a

	very slight odour.
- pH:	Not applicable
- Boiling point/boiling range:	Not applicable
- Melting point/melting range:	Not determined
- Flash point:	> 93.00 °C
- Autoflammability:	Not determined
- Flammable Limits - LEL:	Not applicable
- Flammable Limits - UEL:	Not applicable
- Vapour pressure:	Not applicable
- Water Solubility:	Nil
- Specific gravity:	± 1.300 (Water=1)
- Vapour density:	Not applicable
- Volatile organic compounds:	Not determined
- Evaporation rate:	Not applicable
- Viscosity:	60000 - 100000 mPa.s
- Percent Volatile:	Not determined
10 STABILITY AND REACTIVITY	
<ul><li>10.1 Stability and Reactivity: Stable. Hazardous polymerisation</li><li>10.2 Conditions to Avoid: Heat.</li></ul>	will not occur.
10.3 Materials to Avoid: Strong acids. Strong bases. Strong oxidising agents.	
10.4 Hazardous Decomposition: Carbon monoxide and carbon dioxid Oxides of nitrogen. Oxides of sulphur.	le.
11 TOXICOLOGICAL INFORMATION	
<pre>11.1 Effects from Eye Contact: - Severe Eye Irritation: Signs/sy redness, swelling, pain, tearin cornea, and impaired vision.</pre>	

11.2 Effects from Skin Contact:

- Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.
- Moderate Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness.

11.3 Effects from Inhalation:

- Upper Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.
- Vapours from heated material may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache,hoarseness, nose and throat pain.
- Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, nose and throat pain.

11.4 Effects from Ingestion:

- Ingestion may cause:
- Damage to Gastrointestinal Tissues: signs/symptoms can include pain, vomiting, nausea, abdominal tenderness, burns of mouth, difficulty swallowing, blood in vomit, blood in faeces, and ulceration.
- 11.5 Other Effects and Information: Not specified.

12 ECOLOGICAL INFORMATION

- 12.1 Environmental Data: Not determined.
- 12.2 Mobility in Soil and Water: Not determined.
- 12.3 Persistence/Biodegradability: Not determined.
- 12.4 Bioaccumulation Potential: Not determined.
- 12.5 Ecotoxicity Data: Not determined.

12.6 Ecofate Data: Not determined.

- 12.7 Special statements for 2001/58/EC: Not determined.
- 12.8 Other Effects and Information: Not determined.

13 DISPOSAL CONSIDERATIONS

13.1 Product as Sold: Not determined.

13.2 Product in Use:

Not determined.

- 13.3 Product after Use: Not determined.
- 13.4 Product Packaging: Not determined.
- 13.5 Potential for Recycling: Not determined.
- 13.6 Special Instructions: Cure (harden, set, or react) the product according to product instructions. As a disposal alternative, incinerate uncured product in an industrial or commercial incinerator. Dispose of completely cured (or polymerised) wastes in a sanitary landfill.

## 14 TRANSPORT INFORMATION

- UN number: UN3077 (only applicable to Part B) - IMO Class: 9 - IMO Packing Group: III - IMO Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s (epoxy resin) - ADR Class: 9 - ADR Classification: Μ7 - ADR Packing Group: III - ADR Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s, limited quantity (epoxy resin) - IATA Class: 9 - IATA Packing Group: III - IATA Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s (epoxy resin) 15 REGULATORY INFORMATION \_\_\_\_\_ Label Version Number: 01.00 Symbol(s): Xi Irritant. Ν Dangerous to environment. Risk Phrases: Risk of serious damage to eyes. R41

R	.38	Irritating to skin.			
	.43	May cause sensitisation by skin contact.			
	.51/53	Toxic to aquatic organisms. May cause long-term			
Г	.51/55	adverse effects in the aquatic environment.			
		adverse effects in the aquatic environment.			
Safet	y Phrases:				
	23A	Do not breathe vapour.			
	51	Use only in well ventilated areas.			
	24/25	Avoid contact with the skin and eyes.			
	37/39B	Wear suitable gloves and eye and face protection.			
	26	In case of contact with eyes, rinse immediately with			
G	20				
9	07/007	plenty of water and seek medical advice.			
S	27/28A	After contact with skin, take off immediately all			
		contaminated clothing, and wash immediately with			
_	<b>C 1</b>	plenty of soap and water.			
S	61	Avoid release to the environment. Refer to special			
		instructions/safety data sheets.			
2	М	Contains epoxy resins. See information supplied by			
5	M	manufacturer.			
		manulacculer.			
Discl	osable Ingre	adients.			
	ART A (accel				
	Fatty acids, C18-unsaturated, dimers, polymers with 3, 3'-oxybis(ethyleneoxy)bis(propylamine).				
	ART B (base)				
		(reaction product bisphenol A - epichlorhydrin,			
	W<700).	(reaction product prophenor n epichiornyarin,			
16 OTHE	R INFORMATIO	NC			
16 1	Complete li	st of risk phrases:			
	.36	Irritating to eyes.			
	.38	Irritating to skin.			
	.41	Risk of serious damage to eyes.			
	.43	May cause sensitisation by skin contact.			
		Toxic to aquatic organisms.			
	.51 .53				
R	.0.5	May cause long-term adverse effects in the aquatic			
		environment.			
16 2	Limitations	on Use of Product:			
		al or professional use only.			
L	OI INGUSCIIC	ar or professionar ase only.			
16.3	Reissue date	e/Reason for reissue:			
U	pdated sect	ion 14.			
	1				
16.4	Regulatory 1	Information:			
		g UK Regulations as amended may affect the product as			
S	upplied:				
Т	he Chemical:	s (Hazard Information and Packaging for supply)			
		as amended;			
		of Dangerous Goods (Classification, Packaging and			
		nd use of Transportable Pressure Receptacles			
		1996, as amended;			
	-	of Substances Hazardous to Health Regulations 1999 as			
a	mended;				
	mended;	Waste Regulations 1996, as amended;			
Т	mended; he Special N	Waste Regulations 1996, as amended; ental Protection Act, 1990, as amended;			
T T	mended; he Special N he Environme	Waste Regulations 1996, as amended; ental Protection Act, 1990, as amended; nd Safety at Work Act, 1974, as amended.			
T T	mended; he Special N he Environme	ental Protection Act, 1990, as amended;			

The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.