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KIT SAFETY DATA SHEET

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Document id : 07-2131-6 Issue date : 13/08/2009
Version : 7.00 Supersedes date : 16/10/2007

Dear Customer,
This is the cover sheet for the KIT MSDS.

You will find the document numbers of the MSDS that belong to the kit here on this page.

1 INFORMATION REGARDING KIT

- 1.1 Tradename:
3M 47 Cable Resin
- 1.2 Intended Use of Product:
A two-part resin for cable splicing applications.
- 1.3 3M Product ID:
DE-7110-6902-6, DE-7110-6906-7, DE-7110-6907-5, DE-7110-6903-4,
DE-7110-6904-2, DE-7110-6905-9
- 1.4 Contact Address:
3M United Kingdom PLC 3M Ireland Limited
3M Centre, Cain Road, The Iveagh Building, The Park
Bracknell, Berkshire, RG12 8HT Carrickmines, Dublin 18
- 1.5 E-mail Address and Emergency Contact Number:
tox.uk@mmm.com
+44 (0)1344 858 000
- 1.6 Kit Components:
07-2129-0 3M 47 Cable Resin (Part A)
07-2130-8 3M 47 Cable Resin (Part B)

2 KIT LABEL

Symbol(s):
Xn Harmful.

Risk Phrases:
R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R42/43 May cause sensitisation by inhalation and skin contact.

Safety Phrases:
S23A Do not breathe vapour.
S51 Use only in well ventilated areas.
S24/25 Avoid contact with the skin and eyes.
S37 Wear suitable gloves.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28B After contact with skin, wash immediately with plenty

of water.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

3M Contains isocyanates. See information supplied by manufacturer.

Disclosable Ingredients:

Please refer to the component Safety Data Sheets for disclosable ingredients.

Remarks:

For containers <125 ml, the reduced label text is:

Xn Harmful.
R20 Harmful by inhalation.
R42/43 May cause sensitisation by inhalation and skin contact.
S23A Do not breathe vapour.
S24 Avoid contact with skin.
S37 Wear suitable gloves.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
3M Contains isocyanates. See information supplied by manufacturer.

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SAFETY DATA SHEET

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Document id : 07-2129-0 Issue date : 13/08/2009
Version : 7.02 Supersedes date : 16/10/2007

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

- 1.1 Tradename:
3M 47 Cable Resin (Part A)
- 1.2 Intended Use of Product:
A resin for cable splicing applications.
- 1.3 3M Product ID:
Component only. This can only be purchased as part of a kit.
- 1.4 Contact Address:
3M United Kingdom PLC 3M Ireland Limited
3M Centre, Cain Road, The Iveagh Building, The Park
Bracknell, Berkshire, RG12 8HT Carrickmines, Dublin 18
- 1.5 E-mail Address and Emergency Contact Number:
tox.uk@mmm.com
+44 (0)1344 858 000

2 HAZARDS IDENTIFICATION

Risk Phrases:
None.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient name and classification	CAS number	Percentage
Polyester	---	40.0 - 50.0
Branched polyether with hydroxyl groups	---	40.0 - 45.0
Castor oil	8001-79-4	5.0 - 10.0
EU Number: EINECS 232-293-8		
Oxydipropanol	25265-71-8	< 5.0
EU Number: EINECS 246-770-3		

4 FIRST-AID MEASURES

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- 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 flush skin with large amounts of water. Remove contaminated clothing. If irritation persists, call a medical doctor. Wash contaminated clothing before reuse.
- 4.3 Inhalation:
If signs or symptoms occur, remove person to fresh air. If signs/symptoms continue, call a medical doctor.
- 4.4 Ingestion:
Drink two glasses of water. Call a medical doctor.

5 FIRE-FIGHTING MEASURES

- 5.1 Suitable Extinguishing Media:
Carbon dioxide. Dry chemical. Alcohol-type foam.
- 5.2 Unsuitable Extinguishing Media:
Not specified.
- 5.3 Exposure Hazards:
Not determined.
- 5.4 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 ACCIDENTAL RELEASE MEASURES

- 6.1 Personal Precautions:
Please observe precautions from other sections of this Safety Data Sheet.
- 6.2 Methods for Cleaning up:
Contain spill.
Cover with absorbent material.
Collect as much of the spilled material as possible.
Clean up residue.

Place in a closed container approved for transportation by appropriate authorities.

7 HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

Keep container tightly closed.

- Fire Prevention:

No smoking while handling this material.

7.2 Precautions for Safe Storage:

Store in a cool place. Avoid contact with water to prevent potentially violent reaction or fire.

- Ventilation:

Keep container in a well-ventilated area.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Recommended Ventilation:

Use with appropriate local exhaust ventilation. Provide ventilated enclosure for heat curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. Provide sufficient ventilation to maintain emissions below recommended exposure limits. If exhaust ventilation is not adequate, use appropriate respiratory protection.

8.2 Exposure Limits:

None of the substances in the section 3 ingredient list are listed in the EH40 Exposure Limit Inventory.

8.3 Exposure Controls:

8.3.1 Eye Protection:

Avoid eye contact.
Unvented goggles.

8.3.2 Hand Protection:

Wear appropriate gloves when handling this material.
The following glove material(s) are recommended: Butyl rubber.

8.3.3 Skin Protection:

Avoid prolonged or repeated skin contact.

8.3.4 Respiratory Protection:

Avoid inhalation of vapours.
Select one of the following approved respirators based on airborne concentration of contaminants and in accordance with regulations: Half-mask organic vapour respirator. Full-face organic vapour respirator.

8.3.5 Ingestion:

Wash hands after handling and before eating. Do not ingest.

9 PHYSICAL AND CHEMICAL PROPERTIES

- Appearance and Odour:	White opaque liquid with no odour.
- pH:	Not determined
- Boiling point/boiling range:	Not applicable
- Melting point/melting range:	Not determined
- Flash point:	150.00 °C (TCC)
- Autoflammability:	Not determined
- Flammable Limits - LEL:	Not determined
- Flammable Limits - UEL:	Not determined
- Vapour pressure:	Not applicable
- Water Solubility:	Nil
- Specific gravity:	1.04 (Water=1)
- Vapour density:	Not applicable
- Volatile organic compounds:	Not determined
- Evaporation rate:	Not applicable
- Viscosity:	1000 mPa.s
- Percent Volatile:	Not determined

10 STABILITY AND REACTIVITY

10.1 Stability and Reactivity:

Stable. Hazardous polymerisation will not occur.

10.2 Conditions to Avoid:

None known.

10.3 Materials to Avoid:

Strong oxidising agents.

10.4 Hazardous Decomposition:

Carbon monoxide and carbon dioxide.

Oxides of nitrogen.
Aldehydes.
Hydrocarbons.

11 TOXICOLOGICAL INFORMATION

11.1 Effects from Eye Contact:

Single exposure may cause:

- Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

11.2 Effects from Skin Contact:

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

Single exposure may cause:

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

11.3 Effects from Inhalation:

Prolonged or repeated exposure may cause:

- Upper Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

11.4 Effects from Ingestion:

Ingestion may cause:

- Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhea and vomiting.

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

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:
Disposal alternative: As a disposal alternative, incinerate in an
industrial or commercial facility in the presence of a
combustible material.

14 TRANSPORT INFORMATION

- UN number: Not restricted for
transportation.

15 REGULATORY INFORMATION

Symbol(s):
None.

Risk Phrases:
None.

Safety Phrases:

S51	Use only in well ventilated areas.
S24/25	Avoid contact with the skin and eyes.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28B	After contact with skin, wash immediately with plenty

of water.

Disclosable Ingredients:

No ingredients required on the label.

16 OTHER INFORMATION

16.1 Complete list of risk phrases:

None.

16.2 Limitations on Use of Product:

For industrial or professional use only.

16.3 Reissue date/Reason for reissue:

Complete MSDS revision in accordance with EU directive
2001/58/EC.

16.4 Regulatory Information:

The following UK Regulations as amended may affect the product as
supplied:

The Chemicals (Hazard Information and Packaging for supply)
Regulations, as amended;

The Carriage of Dangerous Goods (Classification, Packaging and
Labelling) and use of Transportable Pressure Receptacles
Regulations 1996, as amended;

The Control of Substances Hazardous to Health Regulations 1999 as
amended;

The Special Waste Regulations 1996, as amended;

The Environmental Protection Act, 1990, as amended;

The Health and Safety at Work Act, 1974, 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.

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SAFETY DATA SHEET

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Document id : 07-2130-8 Issue date : 13/08/2009
Version : 8.02 Supersedes date : 16/10/2007

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

- 1.1 Tradename:
3M 47 Cable Resin (Part B)
- 1.2 Intended Use of Product:
A resin for cable splicing applications.
- 1.3 3M Product ID:
Component only. This can only be purchased as part of a kit.
- 1.4 Contact Address:
3M United Kingdom PLC 3M Ireland Limited
3M Centre, Cain Road, The Iveagh Building, The Park
Bracknell, Berkshire, RG12 8HT Carrickmines, Dublin 18
- 1.5 E-mail Address and Emergency Contact Number:
tox.uk@mmm.com
+44 (0)1344 858 000

2 HAZARDS IDENTIFICATION

Risk Phrases:
R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R42/43 May cause sensitisation by inhalation and skin contact.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient name and classification	CAS number	Percentage
Polymethylene polyphenylene isocyanate	9016-87-9	70.0 - 75.0
3M Classification: Xn: R20; Xi: R36/37/38; R42/43		
Propane-1,2-diol, propoxylated	25322-69-4	25.0 - 30.0
EU Number: NLP 500-039-8		
3M Classification: Xn: R22		
Carbon black	1333-86-4	< .25
EU Number: EINECS 215-609-9		

4 FIRST-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 flush skin with large amounts of water. Remove contaminated clothing. If irritation persists, call a medical doctor. Wash contaminated clothing before reuse.
- 4.3 Inhalation:
If signs or symptoms occur, remove person to fresh air. If signs/symptoms continue, call a medical doctor.
- 4.4 Ingestion:
Drink two glasses of water. Call a medical doctor.

5 FIRE-FIGHTING MEASURES

- 5.1 Suitable Extinguishing Media:
Carbon dioxide. Dry chemical. Alcohol-type foam.
- 5.2 Unsuitable Extinguishing Media:
Not specified.
- 5.3 Exposure Hazards:
Not determined.
- 5.4 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.

6 ACCIDENTAL RELEASE MEASURES

- 6.1 Personal Precautions:
Refer to other sections of this Safety Data Sheet for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.
- 6.2 Methods for Cleaning up:
Evacuate unprotected and untrained personnel from hazard area.

The spill should be cleaned up by qualified personnel.
Ventilate the area with fresh air.
Contain spill.
Pour isocyanate decontaminant solution (90% water, 8% concentrated ammonia, 2% detergent) on spill and allow to react for 10 minutes. Or pour water on spill and allow to react for more than 30 minutes. Cover with absorbent material. Place in a container approved for transportation by appropriate authorities, but do not seal the container for 48 hours to avoid pressure build-up.

7 HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

Keep container tightly closed. Do not pierce or burn container, even after use.

- Fire Prevention:

Do not heat under confinement to avoid risk of explosion.

- Explosion Prevention:

Keep away from heat, sparks, open flame, pilot lights and other sources of ignition.

7.2 Precautions for Safe Storage:

Store in a cool place. Avoid contact with water to prevent potentially violent reaction or fire.

- Ventilation:

Keep container in a well-ventilated area.

- Incompatible Materials/Conditions:

Store away from heat.
Store out of direct sunlight.
Keep away from aluminium and zinc.
Avoid contact with water.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Recommended Ventilation:

Use with appropriate local exhaust ventilation. Obtain special instruction before use. Provide sufficient ventilation to maintain emissions below recommended exposure limits. If exhaust ventilation is not adequate, use appropriate respiratory protection.

8.2 Exposure Limits:

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.

8.3.2 Hand Protection:

Wear appropriate gloves when handling this material.
The following glove material(s) are recommended: Butyl rubber.
Nitrile rubber.

8.3.3 Skin Protection:

Avoid skin contact.
The following protective clothing material(s) are recommended:
Apron. Full protective suit, Overalls.

8.3.4 Respiratory Protection:

Avoid inhalation of airborne material.
Select one of the following approved respirators based on
airborne concentration of contaminants and in accordance with
regulations: Half-mask supplied air respirator. Full-face
supplied air respirator.

8.3.5 Ingestion:

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

9 PHYSICAL AND CHEMICAL PROPERTIES

- Appearance and Odour:	Black liquid with an earthy, musty odour.
- pH:	Not determined
- Boiling point/boiling range:	Not determined
- Melting point/melting range:	Not determined
- Flash point:	150 °C
- Autoflammability:	Not determined
- Flammable Limits - LEL:	Not determined
- Flammable Limits - UEL:	Not determined
- Vapour pressure:	Not determined
- Water Solubility:	Not determined
- Specific gravity:	1.18 (Water=1)
- Vapour density:	Not determined
- Volatile organic compounds:	Not determined

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- | | |
|---------------------|----------------|
| - Evaporation rate: | Not determined |
| - Viscosity: | 2000 mPa.s |
| - Percent Volatile: | Not determined |

10 STABILITY AND REACTIVITY

10.1 Stability and Reactivity:

Stable. Hazardous polymerisation will not occur.

10.2 Conditions to Avoid:

None known.

10.3 Materials to Avoid:

Strong acids.

Strong bases.

Strong oxidising agents.

Amines.

Alcohols.

Water.

Reaction with water, alcohols and amines is not hazardous if container can vent to the atmosphere to prevent pressure build-up.

10.4 Hazardous Decomposition:

Carbon monoxide and carbon dioxide.

Oxides of nitrogen.

Hydrogen cyanide.

Hydrocarbons.

Isocyanates.

11 TOXICOLOGICAL INFORMATION

11.1 Effects from Eye Contact:

- Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

11.2 Effects from Skin Contact:

- Moderate Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness.

Single exposure may cause:

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

11.3 Effects from Inhalation:

- May be fatal if inhaled.

Single exposure may cause:

- Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest. Prolonged or repeated overexposure, above recommended guidelines,

may cause:

- Nervous System Effects: signs/symptoms can include emotional changes, lack of coordination, tremors and sensory loss.

11.4 Effects from Ingestion:

Ingestion may cause:

- Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhea and vomiting.
- Nervous System Effects: signs/symptoms can include emotional changes, lack of coordination, tremors and sensory loss.

11.5 Other Effects and Information:

- Carcinogenicity:

WARNING: Contains a chemical which can cause cancer: Carbon black (1333-86-4 IARC possible human carcinogen 2B).

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:

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

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:
As a disposal alternative, incinerate in an industrial or commercial facility in the presence of a combustible material.

14 TRANSPORT INFORMATION

- UN number: Not restricted for transportation.

15 REGULATORY INFORMATION

Symbol(s):
Xn Harmful.

Risk Phrases:
R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R42/43 May cause sensitisation by inhalation and skin contact.

Safety Phrases:
S23A Do not breathe vapour.
S51 Use only in well ventilated areas.
S24/25 Avoid contact with the skin and eyes.
S37 Wear suitable gloves.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28B After contact with skin, wash immediately with plenty of water.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

3M Contains isocyanates. See information supplied by manufacturer.

Disclosable Ingredients:
Polymethylene polyphenylene isocyanate.

16 OTHER INFORMATION

16.1 Complete list of risk phrases:

R20	Harmful by inhalation.
R36	Irritating to eyes.
R37	Irritating to respiratory system.
R38	Irritating to skin.
R42	May cause sensitisation by inhalation.
R43	May cause sensitisation by skin contact.

16.2 Limitations on Use of Product:

For industrial or professional use only.

16.3 Reissue date/Reason for reissue:

Complete MSDS revision in accordance with EU directive 2001/58/EC.

16.4 Regulatory Information:

The following UK Regulations as amended may affect the product as supplied:

The Chemicals (Hazard Information and Packaging for supply) Regulations, as amended;

The Carriage of Dangerous Goods (Classification, Packaging and Labelling) and use of Transportable Pressure Receptacles Regulations 1996, as amended;

The Control of Substances Hazardous to Health Regulations 1999 as amended;

The Special Waste Regulations 1996, as amended;

The Environmental Protection Act, 1990, as amended;

The Health and Safety at Work Act, 1974, 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.

