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MATERIAL SAFETY DATA SHEET

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Document id : 09-3074-3 Issue date : 13/09/2005
Version : 3.00 Supersedes date : 15/06/2004

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION

Tradename:

3M SCOTCH-WELD BRAND 610 B/A CRYSTAL CLEAR ADHESIVE PART A

3M Product ID:

2 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient name and classification	CAS number	Percentage
HEXAMETHYLENE DIISOCYANATE POLYMER	28182-81-2	Approximately 100.0
EU Hazard Symbols and Risk Phrases: EU - Vendor Classified (Xi; R:43)		
HEXAMETHYLENE DIISOCYANATE	822-06-0	Less Than 0.2
EU Hazard Symbols and Risk Phrases: EU - Adaptation 21 (T,Xi; R:23-36-37-38-42-43)		

3 HAZARDS IDENTIFICATION

Critical hazards:

Irritant. May cause sensitisation by skin contact. CONTAINS 1,6- HEXAMETHYLENE DIISOCYANATE. May produce an allergic reaction.

4 FIRST-AID MEASURES

Eye Contact:

Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

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Skin Contact:

Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and shoes before reuse.

Inhalation:

Remove person to fresh air. If signs/symptoms develop, get medical attention.

Ingestion:

Do not induce vomiting. Get immediate medical attention. Give victim two glasses of water. Never give anything by mouth to an unconscious person.

5 FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

DO NOT USE WATER.

Exposure Hazards:

No unusual fire or explosion hazards are anticipated.

Hazardous Decomposition:

Isocyanates - During Combustion Carbon monoxide - During Combustion. Carbon dioxide - during combustion. Hydrogen Cyanide - During Combustion Oxides of Nitrogen During Combustion.

Fire-Fighting Procedures:

Water may be used to blanket the fire. Wear full protective equipment and a self-contained breathing apparatus.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Refer to other sections of this Material Safety Data Sheet for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

Methods for Cleaning up:

For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water. 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. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Avoid contact with water. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

7 HANDLING AND STORAGE

Precautions for Safe Storage:

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

Precautions for Safe Handling:

Keep container tightly closed. For industrial or professional use only.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection:

Avoid eye contact with vapours, mists, or spray. The following should be worn alone or in combination, as appropriate to prevent eye contact: Safety glasses with side shields. Indirect vented goggles.

Hand Protection:

Gloves are not required. The following glove material(s) are recommended: Polyvinyl alcohol.

Skin Protection:

Avoid skin contact.

Respiratory Protection:

Avoid inhalation of vapours, mists or spray. Avoid breathing of dust created by cutting, sanding, grinding or machining. Do not breathe vapours. HANDLING_RESP_Do not breathe dust Select one of the following approved respirators based on airborne concentration of contaminants and in accordance with regulations: Half facepiece or fullface pressure demand self-contained breathing apparatus. Fullface supplied-air respirator,

Ingestion:

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

Recommended Ventilation:

Use with appropriate local exhaust ventilation. Provide appropriate local exhaust for cutting, grinding, sanding or machining. Do not use in a confined area or areas with little or no air movement.

Exposure Limits:

HEXAMETHYLENE DIISOCYANATE POLYMER (28182-81-2)

HSE WEL TWA: 0.02 mg/m³ sen MEL

HSE WEL STEL: 0.07 mg/m³ sen MEL

CMRG TWA Exposure Limit: 0.5 mg/m³

CMRG STEL: 1.0 mg/m³

3M TWA Exposure Limit: 0.02 mg/m³ sen MEL

3M STEL: 0.07 mg/m³ sen MEL

HEXAMETHYLENE DIISOCYANATE (822-06-0)

HSE WEL TWA: 0.02 mg/m³ sen MEL

HSE WEL STEL: 0.07 mg/m³ sen MEL

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odour:	Transparent Liquid
pH:	Not applicable
Boiling point/boiling range:	230 C
Melting point/melting range:	Not applicable
Flash point:	> 100 C
Autoflammability:	Not determined
Vapour pressure:	Not determined
Water Solubility:	Nil
Specific gravity:	1.13 g/ml
Vapour density:	Not determined
Volatile organic compounds:	Not determined
Evaporation rate:	Not determined
Viscosity:	30 centipoise
Percent Volatile:	Not determined.

10 STABILITY AND REACTIVITY

Conditions to Avoid:
None known.

Materials to Avoid:
Strong bases. Amines. Alcohols. Water.

Hazardous Decomposition:
Stable. Hazardous polymerisation will not occur.

11 TOXICOLOGICAL INFORMATION

Effects from Eye Contact:
Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

Effects from Skin Contact:
Mild Skin Irritation: signs/symptoms may include localised redness, swelling, and itching. Prolonged or repeated exposure may cause: Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

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Effects from Inhalation:

Upper Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Prolonged or repeated exposure may cause: Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

Effects from Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhoea and vomiting. Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

Sensitisation Information:

Persons previously sensitised to isocyanates may develop a cross-sensitisation reaction to other isocyanates.

12 ECOLOGICAL INFORMATION

Ecotoxicity Data:

Not determined.

Ecofate Data:

Not determined.

13 DISPOSAL CONSIDERATIONS

Product as Sold:

Incinerate in an industrial or commercial facility in the presence of a combustible material. As a disposal alternative, dispose of waste product in a facility permitted to accept chemical waste.

Special Instructions:

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

14 TRANSPORT INFORMATION

UN NUMBER:

UN number: Not restricted for
transportation.

UK ROAD/SEA FREIGHT (IMO) CLASSIFICATION:

Substance Identification Number:

Class:

Packing Group:

Proper Shipping Name:

ADR/RID CLASSIFICATION:

Class:

ADR classification:

ICAO/IATA CLASSIFICATION:

Class:

Sub-Risk:

Packing Group:

Proper Shipping Name:

15 REGULATORY INFORMATION

Disclosable Ingredients:

HEXAMETHYLENE DIISOCYANATE POLYMER

Symbol(s):

(Xi) St. Andrew's Cross (Irritant).

Risk Phrases:

(R43) May cause sensitisation by skin contact. (R3103)
CONTAINS 1,6-HEXAMETHYLENE DIISOCYANATE (R1100) May produce an
allergic reaction.

Safety Phrases:

Use only in well ventilated areas. Do not breathe vapour. Do
not breathe dust. Avoid contact with the skin and eyes. Wear
suitable gloves. In case of contact with eyes, rinse
immediately with plenty of water and seek medical advice.
After contact with skin, wash immediately with plenty of
water. Contains isocyanates. See information supplied by
manufacturer.

16 OTHER INFORMATION

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. Carriage of Dangerous Goods by Road 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 The Health and Safety at Work Act, 1974.

Reissue date/Reason for reissue.

Updated sections 5,7,8,9,10,11,13.

Intended Use of Product:

Two part industrial adhesive.

The information on this 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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MATERIAL SAFETY DATA SHEET

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1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION

Tradename:

3M SCOTCH-WELD BRAND 610 B/A CRYSTAL CLEAR ADHESIVE PART B

3M Product ID:

2 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient name and classification	CAS number	Percentage
POLYOL POLYESTER	---	40 - 70
POLYCAPROLACTONE TRIOL	37625-56-2	30 - 40
VINYLTRIMETHOXYSILANE	2768-02-7	1 - 5
BIS(1,2,2,6, 6-PENTAMETHYL-4-PIPERIDINYL)	41556-26-7	1 - 5
SEBACATE		

EU Hazard Symbols and Risk Phrases: EU - Vendor Classification (N; R:50/53) EU - Additional Vendor Classification(Xi; R:43)
METHYL 1,2,2,6, 82919-37-7 0.1 - 1
6-PENTAMETHYL-4-PIPERIDINYL SEBACATE

EU Hazard Symbols and Risk Phrases: EU - Vendor Classification (Xi,N; R:43-50/53)

3 HAZARDS IDENTIFICATION

Critical hazards:

Irritant. May cause sensitisation by skin contact. Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

4 FIRST-AID MEASURES

Eye Contact:

Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact:

Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and shoes before reuse.

Inhalation:

Remove person to fresh air. If signs/symptoms develop, get medical attention.

Ingestion:

Do not induce vomiting. Get immediate medical attention. Give victim two glasses of water. Never give anything by mouth to an unconscious person.

5 FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Ordinary combustible material. Use fire extinguishers with class A extinguishing agents (e.g., water, foam).

Exposure Hazards:

Material will not burn.

Hazardous Decomposition:

Carbon monoxide - During Combustion. Carbon dioxide - during combustion. Oxides of Nitrogen During Combustion.

Fire-Fighting Procedures:

Wear full protective equipment and a self-contained breathing apparatus.

Special Instructions:

Not applicable.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Observe precautions from other sections.

Methods for Cleaning up:

For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities.

7 HANDLING AND STORAGE

Precautions for Safe Handling:

Keep container tightly closed. For industrial or professional use only.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection:

Avoid eye contact with vapours, mists, or spray.

Hand Protection:

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Skin Protection:

Avoid skin contact.

Respiratory Protection:

Avoid inhalation of vapours, mists or spray. Avoid breathing of dust created by cutting, sanding, grinding or machining.

Ingestion:

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

Recommended Ventilation:

Use with appropriate local exhaust ventilation. Provide appropriate local exhaust for cutting, grinding, sanding or machining.

Exposure Limits:

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odour: Viscous, transparent liquid.

pH: Not applicable

Boiling point/boiling range: Not determined

Melting point/melting range: Not applicable

Flash point: > 100 C

Autoflammability: Not determined

Vapour pressure: Not determined

Water Solubility: Not determined

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Specific gravity:	1.13 g/ml
Vapour density:	Not determined
Volatile organic compounds:	Not determined
Evaporation rate:	Not determined
Viscosity:	300 -400 centipoise
Percent Volatile:	Not determined.

10 STABILITY AND REACTIVITY

Conditions to Avoid:
None known.

Materials to Avoid:
None known.

Hazardous Decomposition:
Stable. Hazardous polymerisation will not occur.

11 TOXICOLOGICAL INFORMATION

Effects from Eye Contact:
Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

Effects from Skin Contact:
Mild Skin Irritation: signs/symptoms may include localised redness, swelling, and itching. Prolonged or repeated exposure may cause: Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

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

Effects from Ingestion:
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhoea and vomiting.

12 ECOLOGICAL INFORMATION

Ecotoxicity Data:
Not determined.

Ecofate Data:
Not determined.

13 DISPOSAL CONSIDERATIONS

Product as Sold:

Dispose of completely cured (or polymerised) wastes in a sanitary landfill.

Special Instructions:

Incinerate in an industrial or commercial facility. Since regulations vary, consult applicable regulations or authorities before disposal.

14 TRANSPORT INFORMATION

UN NUMBER:

UN number: Not restricted for transportation.

UK ROAD/SEA FREIGHT (IMO) CLASSIFICATION:

Substance Identification Number:

Class:

Packing Group:

Proper Shipping Name:

ADR/RID CLASSIFICATION:

Class:

ADR classification:

ICAO/IATA CLASSIFICATION:

Class:

Sub-Risk:

Packing Group:

Proper Shipping Name:

15 REGULATORY INFORMATION

Disclosable Ingredients:

BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDINYL) SEBACATE; METHYL, 1,2,2,6,6-PENTAMETHYL-4-PIPERIDINYL SEBACATE.

Symbol(s):

(Xi) St. Andrew's Cross (Irritant).

CP0944B v3.1 RS 458-7286

Risk Phrases:

(R43) May cause sensitisation by skin contact. (R52/53)
Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Safety Phrases:

Use only in well ventilated areas. Do not breathe vapour. Do not breathe dust. Avoid contact with the skin and eyes. Wear suitable gloves. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. Avoid release to the environment. Refer to special instructions/safety data sheets.

16 OTHER INFORMATION

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. Carriage of Dangerous Goods by Road 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 The Health and Safety at Work Act, 1974.

Reissue date/Reason for reissue.

Updated sections 3,6,9,10,12,13,15.

Intended Use of Product:

Two part industrial adhesive.

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