

LORD MATERIAL SAFETY DATA SHEET

FUSOR 152 / 153 – Part A

1.1 PRODUCT NAME: FUSOR 152 / 153 – Part A

1.2 COMPANY

LORD CHEMICAL PRODUCTS (AUSTRALIA) PTY. LTD.

ACN 085 209 712
21 Beverage Drive
Tullamarine
Victoria 3043
Australia

Phone: 03 - 9335 6620

Fax: 03 - 9335 6570

1.3 EMERGENCY

Telephone: 1800 033 111 - ANYTIME AUSTRALIA WIDE

1.4 RECOMMENDED USE

Structural Adhesive

2 COMPOSITION

Hazardous Ingredients	CAS No	%(w/v)	Hazardous Category	Risk Phases
Diphenylmethane diisocyanate	26447-40-5	10	Xn, Xi	R20, R36/R37/R38, R42
Aromatic polyisocyanate	Proprietary	15	Non-hazardous	-
4,4-Diphenylmethane diisocyanate	101-68-8	20	Xn	R20, R36/R37/R38, R42

3 HAZARDOUS IDENTIFICATION

Classified as hazardous according to the criteria of Worksafe Australia.
Hazard Category: Xn (HARMFUL), Xi (IRRITANT)

UN Number -
Proper Shipping Name -
Dangerous Goods Class -
Subsidiary Risk -
Hazchem Code -
Packing Group -
IERG Number -
Poisons Schedule 6

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4 FIRST AID MEASURES

Swallowed: Immediately rinse mouth with water. DO NOT INDUCE vomiting. Give plenty of water or milk to drink, then raw egg. Seek immediate medical assistance.

Eye: Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash contaminated skin. Seek immediate medical assistance.

Skin: Immediately wash contaminated skin with plenty of soap and water. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.

Inhalation: Remove victim from exposure – avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until full recovered. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have qualified person give oxygen through a facemask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Seek immediate medical advice.

Poisons Information Centres in each State capital city can provide additional assistance for scheduled poisons.

Advice to Doctor: Treat symptomatically. Do not give epinephrine or related drugs. Aspiration can result in pulmonary oedema. Liquid paraffin BP may slow gastric absorption. Gastric lavage should only be undertaken after endotracheal intubation.

5 FIRE - FIGHTING MEASURES

Keep containers tightly closed. Heating can cause expansion or decomposition leading to violent rupture of containers. If safe to do so, remove containers from path of fire. Keep containers cool with water spray. Fire fighters to wear self contained breathing apparatus if risk of exposure to vapour or products of combustion/decomposition. During a fire, thermal decomposition or combustion may generate irritating and/or toxic gases and particulate.

EXTINGUISHING MEDIA: Water fog, foam, dry agent (carbon dioxide, dry chemical powder).

6 ACCIDENTAL RELEASE MEASURES

Avoid inhalation of vapours. Use self-contained breathing apparatus. Clear area of all unprotected personnel. Slippery when split. Avoid

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6 ACCIDENTAL RELEASE MEASURES - continued

accidents, clean up immediately. Use absorbent (soil, sand or other inert materials). Wear protective equipment to prevent skin and eye contamination and inhalation of vapours. Contain – prevent run off into drains and waterways. For large spills notify Emergency Services. If contamination of sewers or waterways has occurred advise local Emergency Services.

7 HANDLING and STORAGE

Handling: Avoid skin and eye contact and inhalation of vapours. Wear overalls, chemical goggles and impervious gloves. Use with adequate ventilation. If inhalation risk exists wear organic vapour respirator meeting the requirements of AS1715 and AS1716. Do not handle until all safety precautions have been read and understood. Keep closure tight and container upright to prevent leakage. Empty containers should not be re-used. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or reuse.

Storage: Store only in well-ventilated area. Store away from organic/combustible materials/oxidising agents/foodstuffs. Keep containers closed at all times – check regularly for leaks. Avoid thermal shock. Store in cool place and out of direct sunlight. Store away from sources of heat or ignition. Keep container closed when not in use.

8 EXPOSURE CONTROLS and PERSONAL PROTECTION

	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	NOTICES
4,4-Diphenylmethane diisocyanate	-	0.02	-	0.07	Sen
Aromatic polyisocyanate	-	-	-	-	-
Diphenylmethane diisocyanate	-	0.02	-	0.07	Sen

As published by the National Occupational Health and Safety Commission (Worksafe Australia).

Exposure Standard (TWA) is the time weighted average airborne concentration over an eight-hour working day, for day working week over an entire working life. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

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8 EXPOSURE CONTROLS and PERSONAL PROTECTION - continued

STEL (Short Term Exposure Limits) – the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

'Sen' notice – sensitiser. The substance can cause a specific immune response in some people. An affected individual may subsequently react to minute levels of that substance.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Skin Protection: Use neoprene, nitrile or rubber gloves to prevent skin contact.

Eye Protection: Use safety eyewear including safety glasses with side shields and chemical goggles where splashing may occur.

Other Protective Equipment: Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing and other protective equipment before storage or reuse. If inhalation risk exists wear organic vapour respirator meeting the requirements of AS1715 and AS1716.

Hygienic Practices: Always wash hands before smoking, eating, drinking or using the toilet. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

9 PHYSICAL and CHEMICAL PROPERTIES

Appearance	Brown paste
Odour	None
Specific Gravity	1.54
Vapour Pressure (kPa)	Not determined
Vapour Density	Heavier than air
Flash Point (°C)	> 93
Flammability Limits (v/v%)	n/a – n/a
Solubility Limits	Insoluble in H ₂ O
Boiling Range (°C)	Not applicable
Freeze Point (°C)	Not determined
pH	Not applicable
% Volatile by volume	0.82
% Volatile by weight	0.46

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10 STABILITY and REACTIVITY

Stability: This product is stable under normal storage conditions.

Reactivity: Reacts with amines, acids, water, hydroxyl or active hydrogen compounds.

Hazardous decomposition products are monomeric isocyanates, traces of hydrogen cyanide, nitrogen dioxide. Carbon dioxide, carbon monoxide. (1)

11 HEALTH HAZARDS and TOXICOLOGICAL INFORMATION

HEALTH EFFECTS

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled are:

ACUTE EFFECTS

Swallowed: Harmful if swallowed. Swallowing can result in nausea, vomiting and central nervous system depression. If the victim is uncoordinated there is greater likelihood of vomit entering the lungs and causing subsequent complications.

Eye: May be an eye irritant.

Skin: Contact with skin may result in irritation. Will have a degreasing action on the skin. Repeated skin contact may cause dermatitis.

Inhalation: Possible irritation of the respiratory system can occur causing a variety of symptoms such as dryness of the throat, tightness of the chest, and shortness of breath. Allergic conditions can occur in certain individuals with high sensitivity to isocyanates; this may result in asthma like symptoms. May cause respiratory sensitisation. (1)

CHRONIC EFFECTS

May cause long term lung damage. Chronic skin contact may cause dermatitis. (1)

TOXICITY EFFECTS

No product toxicological information is available.

For the individual components based on 100% the following toxicological information has been recorded:

isocyanates (2)
TCL0 (human)

130ppb/30m

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12 ECOLOGICAL INFORMATION

No environmental impact data found for this material.

13 DISPOSAL CONSIDERATIONS

Refer to appropriate authority in your State. Dispose of material through a licensed waste contractor. Advise flammable nature. Normally suitable for disposal by approved agent.

14 TRANSPORT INFORMATION

SHIPPING NAME not applicable
Packing Group none

Mode	Regulations	Class	Packing Group	Notes
-	UN	None	None	
Sea	IMDG	None	None	
Road/Rail	ADG Code	None	None	
Air	IATA/ICAO	None	none	

Classified as NON HAZARDOUS for the purpose of transport. Refer to relevant regulations for storage and transport requirements.

This material is a Scheduled Poison (S6) and must be stored, maintained and used in accordance with the relevant regulations.

15 REGULATORY INFORMATION

Classification and labelling according to Worksafe Australia's Code of Practice for Labelling Workplace Substances [NOHSC –2012 (1994)]

Hazard Symbol: Xn (HARMFUL), Xi (IRRITANT)

R20 Harmful by inhalation
 R36/R37/R38 Irritating to eyes, respiratory system and skin.
 R42 May cause sensitisation by inhalation.

S24/25 Avoid contact with skin and eyes.
 S45 In case of accident or if you feel unwell, contact a doctor or Poisons Information centre immediately

16 OTHER INFORMATION

Exposure Limits: Worksafe Australia has not established A Workplace Exposure Standard for Atmospheric Contaminants in the Occupational Environment.

LORD MATERIAL SAFETY DATA SHEET **FUSOR 152 / 153 – Part A**

16 OTHER INFORMATION - continued

The information contained in this Safety Data Sheets does not replace any of the user's statutory duties in respect of performing an adequate assessment of any potential workplace risk which may occur as a result of the way in which the product is used. The user must carry out such assessments as are required by other health and safety legislation.

Principal References:

- (1) Material Safety Data Sheet – FUSOR 152 / 153, LORD Corporation Inc. USA,
- (2) ECDIN, Toxicity Summary.

The customer is advised to consult the product Technical Data Sheets for further information including advice on suitable equipment.

Information used in the compilation of this product SDS obtained from investigations conducted at outside laboratories.

Lord Chemical Products (Australia) Pty. Ltd has prepared this Material Safety Data Sheet.

Issue Date **15 December 2009**

Supersedes New issue

Reason for Revision New issue

'FUSOR' is a registered trademark of Lord Corporation Inc. Erie PA, USA

The information contained in this document is intended to describe the product only in terms of health, safety and environmental requirements for the purposes of its safe handling, use and disposal and is to the best of Lord's knowledge and belief correct. Lord will be pleased to give further advice and assistance, but customers must satisfy themselves (by appropriate testing if necessary) that the product is suitable for their purposes and conditions of use and that their facilities and arrangements are suitable for handling or using the product. Accordingly Lord disclaims any liability for loss, injury or damage, which may result from the use of the product, this information, or from such advice and assistance save as may be expressly agreed under its terms of sale.

This information does not comprise a technical or performance specification for the product and customers are referred to any relevant product technical information or specification issued by Lord.

Customers are also reminded that there may be uses or application for the product which are protected by Lord's or third parties patent rights and nothing herein may be construed as an authority or encouragement to use or apply the product in contravention of such rights.

LORD MATERIAL SAFETY DATA SHEET

FUSOR 152 / 153 – Part B

1.1 PRODUCT NAME: FUSOR 152 / 153 – Part B

1.2 COMPANY

LORD CHEMICAL PRODUCTS (AUSTRALIA) PTY. LTD.

ACN 085 209 712
21 Beverage Drive
Tullamarine
Victoria 3043
Australia

Phone: 03 - 9335 6620

Fax: 03 - 9335 6570

1.3 EMERGENCY

Telephone: 1800 033 111 - ANYTIME AUSTRALIA WIDE

1.4 RECOMMENDED USE

Structural Adhesive Curing Component

2 COMPOSITION

Hazardous Ingredients	CAS No	%(w/v)	Hazardous Category	Risk Phases
Carbon Black	1333-86-4	1	Non hazardous	

3 HAZARDOUS IDENTIFICATION

Classified as hazardous according to the criteria of Worksafe Australia.

Hazard Category: Xi (IRRITANT)

UN Number -
Proper Shipping Name -
Dangerous Goods Class -
Subsidiary Risk -
Hazchem Code -
Packing Group -
IERG Number -
Poisons Schedule 5

LORID MATERIAL SAFETY DATA SHEET

FUSOR 152 / 153 – Part B

4 FIRST AID MEASURES

Swallowed: Immediately rinse mouth with water. DO NOT INDUCE vomiting. Give plenty water or milk to drink, then raw egg. Seek immediate medical assistance.

Eye: Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash contaminated skin. Seek immediate medical assistance.

Skin: Immediately wash contaminated skin with plenty of soap and water. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.

Inhalation: Remove victim from exposure – avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until full recovered. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have qualified person give oxygen through a facemask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Seek immediate medical advice.

Poisons Information Centres in each State capital city can provide additional assistance for scheduled poisons.

Advice to Doctor: Treat symptomatically. Do not give epinephrine or related drugs. Aspiration can result in pulmonary oedema. Liquid paraffin BP may slow gastric absorption. Gastric lavage should only be undertaken after endotracheal intubation.

5 FIRE - FIGHTING MEASURES

Keep containers tightly closed. Heating can cause expansion or decomposition leading to violent rupture of containers. If safe to do so, remove containers from path of fire. Keep containers cool with water spray. Fire fighters to wear self contained breathing apparatus if risk of exposure to vapour or products of combustion/decomposition. During a fire, thermal decomposition or combustion may generate irritating and/or toxic gases and particulate.

EXTINGUISHING MEDIA: Water fog, foam, dry agent (carbon dioxide, dry chemical powder).

6 ACCIDENTAL RELEASE MEASURES

Avoid inhalation of vapours. Use self-contained breathing apparatus. Clear area of all unprotected personnel. Slippery when split. Avoid accidents, clean up immediately.

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FUSOR 152 / 153 – Part B

6 ACCIDENTAL RELEASE MEASURES - continued

Use absorbent (soil, sand or other inert materials). Wear protective equipment to prevent skin and eye contamination and inhalation of vapours. Contain – prevent run off into drains and waterways. For large spills notify Emergency Services. If contamination of sewers or waterways has occurred advise local Emergency Services.

7 HANDLING and STORAGE

Handling: Avoid skin and eye contact and inhalation of vapours. Wear overalls, chemical goggles and impervious gloves. Use with adequate ventilation. If inhalation risk exists wear organic vapour respirator meeting the requirements of AS1715 and AS1716. Do not handle until all safety precautions have been read and understood. Keep closure tight and container upright to prevent leakage. Empty containers should not be re-used. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or reuse.

Storage: Store only in well-ventilated area. Store away from organic/combustible materials/oxidising agents/foodstuffs. Keep containers closed at all times – check regularly for leaks. Avoid thermal shock. Store in cool place and out of direct sunlight. Store away from sources of heat or ignition. Keep container closed when not in use.

8 EXPOSURE CONTROLS and PERSONAL PROTECTION

	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	NOTICES
Carbon Black	-	3	-	-	-

As published by the National Occupational Health and Safety Commission (Worksafe Australia).

Exposure Standard (TWA) is the time weighted average airborne concentration over an eight-hour working day, for day working week over an entire working life. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

STEL (Short Term Exposure Limits) – the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

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8 EXPOSURE CONTROLS and PERSONAL PROTECTION - continued

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Skin Protection: Use neoprene, nitrile or rubber gloves to prevent skin contact.

Eye Protection: Use safety eyewear including safety glasses with side shields and chemical goggles where splashing may occur.

Other Protective Equipment: Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing and other protective equipment before storage or reuse. If inhalation risk exists wear organic vapour respirator meeting the requirements of AS1715 and AS1716.

Hygienic Practices: Always wash hands before smoking, eating, drinking or using the toilet. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

9 PHYSICAL and CHEMICAL PROPERTIES

Appearance	Black paste
Odour	None
Specific Gravity	1.33
Vapour Pressure (kPa)	Not determined
Vapour Density	Heavier than air
Flash Point (°C)	> 93
Flammability Limits (v/v%)	n/a – n/a
Solubility Limits	Insoluble in H ₂ O
Boiling Range (°C)	Not applicable
Freeze Point (°C)	Not determined
pH	Not applicable
% Volatile by volume	0.0
% Volatile by weight	0.0

10 STABILITY and REACTIVITY

Stability: This product is stable under normal storage conditions.

Reactivity: Reacts with acids, caustics, ammonia, amines, halogens and isocyanates.

Hazardous decomposition products: carbon dioxide, carbon monoxide (1)

LORID MATERIAL SAFETY DATA SHEET **FUSOR 152 / 153 – Part B**

11 HEALTH HAZARDS and TOXICOLOGICAL INFORMATION

HEALTH EFFECTS

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled are:

ACUTE EFFECTS

Swallowed: Harmful if swallowed. If the victim is uncoordinated there is greater likelihood of vomit entering the lungs and causing subsequent complications.

Eye: Eye contact may cause burns.

Skin: Contact with skin may result in irritation. Will have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritate contact dermatitis.

Inhalation: Possible irritation of the respiratory system can occur causing a variety of symptoms such as dryness of the throat, tightness of the chest, and shortness of breath. May cause respiratory sensitisation. (1)

CHRONIC EFFECTS

May cause respiratory or skin dermatitis or sensitisation problems.

TOXICITY EFFECTS

No product toxicological information is available.

12 ECOLOGICAL INFORMATION

No environmental impact data found for this material.

13 DISPOSAL CONSIDERATIONS

Refer to appropriate authority in your State. Dispose of material through a licensed waste contractor. Normally suitable for disposal by approved agent.

LORD MATERIAL SAFETY DATA SHEET

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14 TRANSPORT INFORMATION

SHIPPING NAME none
Packing Group none

Mode	Regulations	Class	Packing Group	Notes
-	UN	None	None	
Sea	IMDG	None	None	
Road/Rail	ADG Code	None	None	
Air	IATA/ICAO	None	None	

Classified as Non hazardous Substance for the purpose of transport. Refer to relevant regulations for storage and transport requirements.

This material is a Scheduled Poison (S5) and must be stored, maintained and used in accordance with the relevant regulations.

15 REGULATORY INFORMATION

Classification and labelling according to Worksafe Australia's Code of Practice for Labelling Workplace Substances [NOHSC –2012 (1994)]

Hazard Symbol: none

S24/S25 Avoid contact with skin and eyes
 S36/S37/S39 Wear suitable protective clothing, gloves and eye / face protection

16 OTHER INFORMATION

Exposure Limits: Worksafe Australia has not established A Workplace Exposure Standard for Atmospheric Contaminants in the Occupational Environment.

The information contained in this Safety Data Sheet does not replace any of the user's statutory duties in respect of performing an adequate assessment of any potential workplace risk which may occur as a result of the way in which the product is used. The user must carry out such assessments as are required by other health and safety legislation.

Principal References:

(1) Material Safety Data Sheet – FUSOR 152 / 153, LORD Corporation Inc. USA.

The customer is advised to consult the product Technical Data Sheets for further information including advice on suitable equipment.

LORID MATERIAL SAFETY DATA SHEET

FUSOR 152 / 153 – Part B

16 OTHER INFORMATION - continued

Information used in the compilation of this product SDS obtained from investigations conducted at outside laboratories.

Lord Chemical Products (Australia) Pty. Ltd has prepared this Material Safety Data Sheet.

Issue Date **15 December 2009**

Supersedes new issue

Reason for Revision new issue

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This information does not comprise a technical or performance specification for the product and customers are referred to any relevant product technical information or specification issued by Lord.

Customers are also reminded that there may be uses or application for the product which are protected by Lord's or third parties patent rights and nothing herein may be construed as an authority or encouragement to use or apply the product in contravention of such rights.