

LORD MATERIAL SAFETY DATA SHEET

FUSOR 116 – Part A

1.1 PRODUCT NAME: FUSOR 116 – 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
Methyl Methacrylate	80-62-6	45	Xi	R36/R37/R38, R43
Methacrylate blend	Proprietary	2	Xi	R36/R37/R38
Acrylic monomer	Proprietary	2	Xi	R36/R37/R38, R43
Methacrylate phosphate ester	Proprietary	2	Non-hazardous	-
Methacrylic acid	79-41-4	2	Xi	R36

3 HAZARDOUS IDENTIFICATION

Classified as hazardous according to the criteria of Worksafe Australia.

Hazard Category: Xi (IRRITANT)

UN Number

1133

Proper Shipping Name

ADHESIVES containing flammable liquid

Dangerous Goods Class

3

Subsidiary Risk

-

Hazchem Code

3[Y]E

Packing Group

II

IERG Number

14

Poisons Schedule

5

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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

Flammable liquid, (Class 3).

May form flammable vapour mixtures with air. Avoid all ignition sources. Flameproof equipment necessary in area where this chemical is being used. Nearby equipment must be earthed. 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.

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6 ACCIDENTAL RELEASE MEASURES

Shut off possible sources of ignition. Avoid inhalation of vapours. Use self-contained breathing apparatus. Clear area of all unprotected personnel. Slippery when split. Avoid 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. 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
Methyl Methacrylate	100	410	-	-	Sk
Methacrylic acid	20	70	-	-	-
Methacrylate phosphate ester	NE	NE	NE	NE	-
Methacrylate blend	NE	NE	NE	NE	-
Acrylic monomer	NE	NE	NE	NE	-

NE = Not Established.

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

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8 EXPOSURE CONTROLS and PERSONAL PROTECTION - continued

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.

'Sk" notice: Absorption through the skin may be a significant source of exposure.

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.

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	Off white paste
Odour	Acrylate
Specific Gravity	1.09
Vapour Pressure (kPa)	Not determined
Vapour Density	Heavier than air
Flash Point (°C)	15
Flammability Limits (v/v%)	1.6 – 8.8
Solubility Limits	Insoluble in H ₂ O
Boiling Range (°C)	60 – 220
Freeze Point (°C)	Not determined
pH	Not applicable
% Volatile by volume	0.0
% Volatile by weight	0.0

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10 STABILITY and REACTIVITY

Stability: This product is stable under normal storage conditions.

Reactivity: Reacts with strong oxidising agents, acids, caustics, amines, peroxides and polymerisation inhibitors.

Hazardous decomposition products are carbon dioxide, carbon monoxide, and organic or inorganic nitrogen compounds (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: Swallowing can result in nausea. 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 or prolonged skin contact may lead to 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. (1)

CHRONIC EFFECTS

May cause respiratory or skin dermatitis problems.

TOXICITY EFFECTS

No product toxicological information is available.
For the individual components based on 100% the following toxicological information has been recorded:

Methacrylic Acid (2)

Oral LD50 (rat)	1060 mg/kg
Dermal LD50 (rabbit)	500 mg/kg

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12 ECOLOGICAL INFORMATION

No environmental impact data found for this material, however for:

Methacrylic Acid (2)

24 weeks LC50 (Coho salmon, silver salmon): 10,000 ug/l

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.

14 TRANSPORT INFORMATION

SHIPPING NAME
Packing Group

ADHESIVES containing flammable liquid
II

Mode	Regulations	Class	Packing Group	Notes
-	UN	1133	II	
Sea	IMDG	Class 3	II	
Road/Rail	ADG Code	Class 3	II	
Air	IATA/ICAO	Class 3	II	

Classified as a Class 3 (FLAMMABLE LIQUID) Dangerous Substance for the purpose of transport. Refer to relevant regulations for storage and transport requirements.

Not to be loaded with explosives (Class 1), spontaneously combustible substances (Class 4.2), oxidising agents (Class 5.1), organic peroxides (Class 5.2), foodstuff or foodstuff empties, however exemptions may apply.

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:	Xi (IRRITANT)
R36/R37/R38	Irritating to eyes, respiratory system and skin.
R43	May cause sensitisation by skin contact
S24/S25	Avoid contact with skin and eyes.

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FUSOR 116 – Part A

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 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 116, 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 **16 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 116 – Part B

1.1 PRODUCT NAME: FUSOR 116 – 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
Epoxy resin	Proprietary	50	Non-hazardous	-
Benzoyl peroxide	94-36-0	20	Non-hazardous	-
Diisobutyl phthalate	84-69-5	25	Non-hazardous	-

3 HAZARDOUS IDENTIFICATION

Classified as hazardous according to the criteria of Worksafe Australia.

Hazard Category: none

UN Number 3108
Proper Shipping Name Organic Peroxide, Type E, Solid
Dangerous Goods Class 5.2
Subsidiary Risk -
Hazchem Code -
Packing Group II
IERG Number 32
Poisons Schedule 5

LORID MATERIAL SAFETY DATA SHEET

FUSOR 116 – 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. Clear area of all unprotected personnel. Slippery when split. Avoid accidents, clean up immediately.

LORID MATERIAL SAFETY DATA SHEET

FUSOR 116 – 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. 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
Benzoyl peroxide	-	5	-	-	-
Diisobutyl phthalate	NE	NE	NE	NE	-
Epoxy resin	NE	NE	NE	NE	-

NE = Not Established.

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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FUSOR 116 – Part B

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.

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.

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	Grey paste
Odour	Slight
Specific Gravity	1.22
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)	100 – 100
Freeze Point (°C)	Not determined
pH	Not applicable
% Volatile by volume	6.6
% Volatile by weight	5.4

LORID MATERIAL SAFETY DATA SHEET

FUSOR 116 – Part B

10 STABILITY and REACTIVITY

Stability: This product is stable under normal storage conditions.

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

Hazardous decomposition products: carbon dioxide, carbon monoxide, aldehydes (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: Swallowing can result in nausea. 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 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. (1)

CHRONIC EFFECTS

May cause respiratory or skin dermatitis problems.

TOXICITY EFFECTS

No product toxicological information is available.

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

Benzoyl peroxide (2)

Oral LD50 (rat)	7710 mg/kg
Dermal LD50 (mammal)	> 1g/kg

LORID MATERIAL SAFETY DATA SHEET

FUSOR 116 – Part B

12 ECOLOGICAL INFORMATION

No environmental impact data found for this material, however for:

Benzoyl peroxide (2)

0.033 days (aholehole) (behaviour): 20,000 ug/l

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.

14 TRANSPORT INFORMATION

SHIPPING NAME
Packing Group

Organic Peroxide, Type E, Solid
II

Mode	Regulations	Class	Packing Group	Notes
-	UN	5.2	II	
Sea	IMDG	5.2	II	
Road/Rail	ADG Code	5.2	II	
Air	IATA/ICAO	5.2	II	

Classified as a 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.

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 Sheets does not replace any of the user's statutory duties in respect of performing an adequate assessment

LORD MATERIAL SAFETY DATA SHEET

FUSOR 116 – Part B

16 OTHER INFORMATION - continued

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 116, 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 **18 January 2010**

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.