

Conforms to Regulation (EU) No. 1907/2006 - MSDS_DE

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Brown Brothers Distribution Limited Wellington House, Starley Way Birmingham International Park, Solihull West Midlands B37 7HB www.brownbrothers.com	Emergency telephone 0121 7817208 Product Information 0121 7817208
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Product name Plastic Repair Adhesive Black (Rapid)
 Product code BPAB50R
 Product Use Description Adhesives

2. HAZARDS IDENTIFICATION

Hazard Summary	Harmful Irritant
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Risks	Harmful by inhalation., Harmful: danger of serious damage to health by prolonged exposure through inhalation. Limited evidence of a carcinogenic effect. May cause sensitization by inhalation and skin contact. Irritating to eyes, respiratory system and skin.
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3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	EINECS-No.	Concentration	Symbol(s)	R-phrase(s)
4,4'-Methylenediphenyl diisocyanate	101-68-8	202-966-0	>=25 - <40%	Carc.Cat.3 Xn Xi	R40 R20, R48/20 R36/37/38 R42/43
Calcium oxide	1305-78-8	215-138-9	>=1 - <2.5%	Xi	R36/38
Disodium oxide	1313-59-3	215-208-9	>=1 - <2.5%	C	R34
o-(p-Isocyanatobenzyl)phenyl isocyanate	5873-54-1	227-534-9	>=0.5 - <1%	Carc.Cat.3 Xn Xi	R40 R20, R48/20 R36/37/38 R42/43

For the full text of the R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General Information

Consult a physician. Show this safety data sheet to the doctor in attendance.

Eyes

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention. Remove contact lenses.

Skin

Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician.

Ingestion

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Inhalation

Move to fresh air. Consult a physician after significant exposure. If symptoms persist, call a physician. In case of shortness of breath, give oxygen.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

ABC powder, Water mist, Carbon dioxide (CO₂), Dry chemical

Unsuitable extinguishing media

DO NOT USE: Halons

Hazardous combustion products

carbon dioxide and carbon monoxide, nitrogen compounds, Hydrogen cyanide (hydrocyanic acid), Isocyanates, nitrogen oxides (NO_x)

Thermal decomposition

no data available

Precautions for fire-fighting

Do not allow run-off from fire fighting to enter drains or water courses. Keep containers and surroundings cool with water spray. Prevent fire extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Personal protective equipment

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not flush into surface water. Do not let product enter drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Neutralise with the following product(s): Ammonia Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Large spills should be collected mechanically (remove by pumping) for disposal. Keep in suitable, closed containers for disposal.

Other information

Comply with all applicable federal, state, and local regulations. Keep the container open.

7. HANDLING AND STORAGE

Handling

Avoid contact with skin and eyes. Do not breathe vapours or spray mist. For personal protection see section 8. Provide sufficient air exchange and/or exhaust in work rooms. Avoid exceeding of the given occupational exposure limits (see section 8). Smoking, eating and drinking should be prohibited in the application area. Normal measures for preventive fire protection.

Storage

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Stable under recommended storage conditions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

4,4'-Methylenediphenyl diisocyanate (CAS 101-68-8)			
TRGS 900	AGW:	0.05 mg/m ³	Fume and aerosol
DFG MAK	MAK:	0.05 mg/m ³	Inhalable fraction.
Calcium oxide (CAS 1305-78-8)			

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure (from known, suspected or apparent adverse effects).

Eye protection

Safety glasses with side-shields

Skin and body protection

Wear as appropriate:

Safety shoes

Wear resistant gloves such as:

Nitrile rubber

Respiratory protection

No personal respiratory protective equipment normally required.

In the case of vapour formation use a respirator with an approved filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	viscous
Colour	beige
Odour	no data available
Boiling point/boiling range	(>) 200.00 °C
Melting point/range	no data available
pH	no data available
Flash point	(>) 100.00 °C
Evaporation rate	(<) 1 (n-Butyl Acetate)
Lower explosion limit/Upper explosion limit	no data available
Vapour pressure	0.01 hPa @ 25 °C
Vapour density	(>) 1 (AIR=1)
Density	1.288 g/cm ³ @ 68 °F / 20 °C
Solubility	Water practically insoluble
Partition coefficient: n-octanol/water	no data available
log Pow	no data available
Autoignition temperature	no data available
Viscosity, dynamic	(ca.) 20,000 mPa.s

Viscosity, kinematic	no data available
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10. STABILITY AND REACTIVITY

Stability

No hazards to be specially mentioned.

Conditions to avoid

Exposure to moisture., Freezing temperatures.

Incompatible products

Acids, Bases, Amines, Ammonia, water, Strong oxidizing agents, chlorinated rubber, Copper alloys, aluminum, Iron, Zinc

Hazardous decomposition products

carbon dioxide and carbon monoxide, nitrogen compounds, Hydrogen cyanide (hydrocyanic acid), Isocyanates, nitrogen oxides (NOx)

Hazardous reactions

Hazardous polymerisation does not occur.

11. TOXICOLOGICAL INFORMATION

Routes of exposure

Skin contact, Eye Contact, Ingestion

Eye contact

Causes eye irritation.

Skin contact

Causes skin irritation.

Ingestion

Not known to be harmful if swallowed.

Inhalation

Harmful by inhalation. May cause allergic respiratory reaction.

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Upper respiratory tract, Skin, lung (for example, asthma-like conditions)

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), Cough, Headache, chest pain, Difficulty in breathing, lung edema (fluid buildup in the lung tissue), Exposure to this product (or a component) may cause an allergic reaction (narrowing of the air passages of the lungs resulting in difficult breathing, tightness in the chest, coughing and wheezing) in some sensitive individuals. Other symptoms of an allergic reaction may include itchy and watery eyes, runny and stuffy nose, sweating, flushing, hives, rapid heart rate, and lowered blood pressure.

Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: nasal damage, lung damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: effects on lung function

Component data

4,4'-Methylenediphenyl diisocyanate	TRGS 905	Carcinogenic Category 3
The basis for the evaluation of this substance were compiled by the AGS and can be accessed as Announcements of the AGS at www.baua.de/prax/ags/begr_05.htm .		
Deviation from EU classification according to Annex I of Directive 67/548/EEC.		

Acute oral toxicity

4,4'-Methylenediphenyl diisocyanate	LD 50 Rat: 9,200 mg/kg
Calcium oxide	no data available
Disodium oxide	no data available
o-(p-Isocyanatobenzyl)phenyl isocyanate	no data available

Acute inhalation toxicity

4,4'-Methylenediphenyl diisocyanate	LC 50 Rat: 0.369 mg/l , 4 h
Calcium oxide	no data available
Disodium oxide	no data available
o-(p-Isocyanatobenzyl)phenyl isocyanate	no data available

Acute dermal toxicity

4,4'-Methylenediphenyl diisocyanate	LD 50 Rabbit: > 7,900 mg/kg
Calcium oxide	no data available
Disodium oxide	no data available
o-(p-Isocyanatobenzyl)phenyl isocyanate	no data available

12. ECOLOGICAL INFORMATION

Product information**Aquatic toxicity**

no data available

Environmental fate and pathways**Biodegradation**

no data available

Bioaccumulation

The bioaccumulation potential cannot be determined.

13. DISPOSAL CONSIDERATIONS**Waste disposal methods**

Dispose of in accordance with the European Directives on waste and hazardous waste. Do not contaminate ponds, waterways or ditches with chemical or used container. Container hazardous when empty. Dispose of in accordance with local regulations.

Empty packaging

Empty remaining contents. Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

European Waste Catalogue

080501 waste isocyanates

14. TRANSPORT INFORMATION**ADR**

Not dangerous goods

ADNR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA_P

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BPAB50R

Not dangerous goods

IATA_C

Not dangerous goods

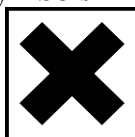
Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

Product Use Description

professional use

Hazard symbols



Harmful

R-phrases(s)

- R20 Harmful by inhalation.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R40 Limited evidence of a carcinogenic effect.
- R42/43 May cause sensitization by inhalation and skin contact.
- R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

S-phrases(s)

- S23 Do not breathe vapour.
- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- S38 In case of insufficient ventilation, wear suitable respiratory equipment.
- S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S51 Use only in well-ventilated areas.

Contains

4,4'-Methylenediphenyl diisocyanate	CAS 101-68-8
o-(p-Isocyanatobenzyl)phenyl isocyanate	CAS 5873-54-1

WGK Identification Number:

WGK 1: slightly water endangering

16. OTHER INFORMATION**Full text of R-phrases referred to under sections 2 and 3**

R36/37/38	Irritating to eyes, respiratory system and skin.
R42/43	May cause sensitization by inhalation and skin contact.
R40	Limited evidence of a carcinogenic effect.
R20	Harmful by inhalation.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R36/38	Irritating to eyes and skin.
R34	Causes burns.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Conforms to EU Directive 1907/2006/EC - MSDS_GB

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Brown Brothers Distribution Limited
Wellington House, Starley Way
Birmingham International Park, Solihull
West Midlands B37 7HB

www.brownbrothers.com

Emergency telephone
0121 7817208

Product Information
0121 7817208

Product name	Plastic Repair Adhesive Black Rapid
Product code	BDPBPAB50R
Product Use Description	no data available

2. HAZARDS IDENTIFICATION**Hazard Summary****Risks**

Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 1999/45/EC.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	EINECS-No.	Concentration	Symbol(s)	R-phrases(s)
No dangerous ingredients according to Regulation (EC) No. 1907/2006					

4. FIRST AID MEASURES**General Information**

First aid is not normally required. If symptoms develop, seek medical attention.

Eyes

Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.
Remove contact lenses.

Skin

Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water.

Ingestion

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Inhalation

Move to fresh air. If symptoms persist, call a physician. In case of shortness of breath, give oxygen.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

ABC powder, Water mist, Carbon dioxide (CO₂), Dry chemical

Unsuitable extinguishing media

DO NOT USE: Halons

Hazardous combustion products

halogenated hydrocarbons, nitrogen oxides (NO_x), toxic fumes, carbon dioxide and carbon monoxide

Thermal decomposition

no data available

Precautions for fire-fighting

Do not allow run-off from fire fighting to enter drains or water courses. Keep containers and surroundings cool with water spray. Prevent fire extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Personal protective equipment

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Large spills should be collected mechanically (remove by pumping) for disposal. Keep in suitable, closed containers for disposal.

Other information

Comply with all applicable federal, state, and local regulations.

7. HANDLING AND STORAGE**Handling**

Do not breathe vapours or spray mist. For personal protection see section 8. Avoid exceeding of the given occupational exposure limits (see section 8). Smoking, eating and drinking should be prohibited in the application area. No special handling advice required. Normal measures for preventive fire protection.

Storage

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Stable under recommended storage conditions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines****General advice**

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure (from known, suspected or apparent adverse effects).

Eye protection

Safety glasses with side-shields

Skin and body protection

Wear as appropriate:

Safety shoes

Wear resistant gloves such as:

Polyethylene

Respiratory protection

No personal respiratory protective equipment normally required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	no data available
Colour	no data available
Odour	no data available
Boiling point/boiling range	no data available
Melting point/range	no data available
pH	no data available
Flash point	(>) 93.34 °C
Evaporation rate	no data available
Lower explosion limit/Upper explosion limit	no data available
Vapour pressure	3.00 hPa @ 25 °C, Calculated Vapor Pressure
Vapour density	no data available
Density	1.246 g/cm ³
Solubility	no data available
Partition coefficient: n-octanol/water	no data available
log Pow	no data available
Autoignition temperature	no data available
Viscosity, dynamic	no data available
Viscosity, kinematic	no data available

10. STABILITY AND REACTIVITY
Stability

No hazards to be specially mentioned.

Conditions to avoid

heat

Incompatible products

Strong acids, Strong oxidizing agents, isocyanates, oxidizers

Hazardous decomposition products

Aldehydes, Organic acids, ketones, halogenated hydrocarbons, nitrogen oxides (NO_x), carbon dioxide and carbon monoxide

Hazardous reactions

Hazardous polymerisation does not occur.

11. TOXICOLOGICAL INFORMATION

Routes of exposure

Skin contact, Eye Contact, Ingestion, Inhalation

Eye contact

no data available

Skin contact

According to the classification criteria of the European Union, the product is not considered as being a skin irritant.

Ingestion

Not known to be harmful if swallowed.

Inhalation

Not known to be harmful if inhaled.

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: lung (for example, asthma-like conditions)

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: irritation (nose, throat, airways)

Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: effects on lung function

Component data

no data available

12. ECOLOGICAL INFORMATION

Product information

Aquatic toxicity

no data available

Environmental fate and pathways

Biodegradation

no data available

Bioaccumulation

The bioaccumulation potential cannot be determined.

13. DISPOSAL CONSIDERATIONS**Waste disposal methods**

Dispose of in accordance with the European Directives on waste and hazardous waste. Container hazardous when empty. Dispose of in accordance with local regulations.

Empty packaging

Empty remaining contents.

European Waste Catalogue

The Waste code should be assigned in discussion between the user and the waste disposal company.

14. TRANSPORT INFORMATION**ADR**

Not dangerous goods

ADNR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA_P

Not dangerous goods

IATA_C

Not dangerous goods

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

Product Use Description

no data available

Hazard symbols

none

R-phrases(s)**S-phrase(s)****Contains**

Contains[Piperazine] - May produce an allergic reaction.

16. OTHER INFORMATION**Full text of R-phrases referred to under sections 2 and 3**

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Conforms to Regulation (EU) No. 1907/2006 - MSDS_DE

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Brown Brothers Distribution Limited Wellington House, Starley Way Birmingham International Park, Solihull West Midlands B37 7HB www.brownbrothers.com	Emergency telephone 0121 7817208 Product Information 0121 7817208
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Product name Plastic Repair Adhesive Black (Standard)
 Product code BPAB50S
 Product Use Description Adhesives

2. HAZARDS IDENTIFICATION

Hazard Summary	Harmful Irritant
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Risks	Harmful by inhalation., Harmful: danger of serious damage to health by prolonged exposure through inhalation. Limited evidence of a carcinogenic effect. May cause sensitization by inhalation and skin contact. Irritating to eyes, respiratory system and skin.
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3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	EINECS-No.	Concentration	Symbol(s)	R-phrases(s)
4,4'-Methylenediphenyl diisocyanate	101-68-8	202-966-0	>=25 - <40%	Carc.Cat.3 Xn Xi	R40 R20, R48/20 R36/37/38 R42/43
Calcium oxide	1305-78-8	215-138-9	>=1 - <2.5%	Xi	R36/38
Disodium oxide	1313-59-3	215-208-9	>=1 - <2.5%	C	R34
o-(p-Isocyanatobenzyl)phenyl isocyanate	5873-54-1	227-534-9	>=0.5 - <1%	Carc.Cat.3 Xn Xi	R40 R20, R48/20 R36/37/38 R42/43

For the full text of the R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General Information

Consult a physician. Show this safety data sheet to the doctor in attendance.

Eyes

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention. Remove contact lenses.

Skin

Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician.

Ingestion

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Inhalation

Move to fresh air. Consult a physician after significant exposure. If symptoms persist, call a physician. In case of shortness of breath, give oxygen.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

ABC powder, Water mist, Carbon dioxide (CO₂), Dry chemical

Unsuitable extinguishing media

DO NOT USE: Halons

Hazardous combustion products

carbon dioxide and carbon monoxide, nitrogen compounds, Hydrogen cyanide (hydrocyanic acid), Isocyanates, nitrogen oxides (NO_x)

Thermal decomposition

no data available

Precautions for fire-fighting

Do not allow run-off from fire fighting to enter drains or water courses. Keep containers and surroundings cool with water spray. Prevent fire extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Personal protective equipment

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not flush into surface water. Do not let product enter drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Neutralise with the following product(s): Ammonia Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Large spills should be collected mechanically (remove by pumping) for disposal. Keep in suitable, closed containers for disposal.

Other information

Comply with all applicable federal, state, and local regulations. Keep the container open.

7. HANDLING AND STORAGE**Handling**

Avoid contact with skin and eyes. Do not breathe vapours or spray mist. For personal protection see section 8. Provide sufficient air exchange and/or exhaust in work rooms. Avoid exceeding of the given occupational exposure limits (see section 8). Smoking, eating and drinking should be prohibited in the application area. Normal measures for preventive fire protection.

Storage

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Stable under recommended storage conditions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines**

4,4'-Methylenediphenyl diisocyanate (CAS 101-68-8)			
TRGS 900	AGW:	0.05 mg/m ³	Fume and aerosol
DFG MAK	MAK:	0.05 mg/m ³	Inhalable fraction.
Calcium oxide (CAS 1305-78-8)			

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure (from known, suspected or apparent adverse effects).

Eye protection

Safety glasses with side-shields

Skin and body protection

Wear as appropriate:

Safety shoes

Wear resistant gloves such as:

Nitrile rubber

Respiratory protection

No personal respiratory protective equipment normally required.

In the case of vapour formation use a respirator with an approved filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	viscous
Colour	beige
Odour	no data available
Boiling point/boiling range	(>) 200.00 °C
Melting point/range	no data available
pH	no data available
Flash point	(>) 100.00 °C
Evaporation rate	(<) 1 (n-Butyl Acetate)
Lower explosion limit/Upper explosion limit	no data available
Vapour pressure	0.01 hPa @ 25 °C
Vapour density	(>) 1 (AIR=1)
Density	1.288 g/cm ³ @ 68 °F / 20 °C
Solubility	Water practically insoluble
Partition coefficient: n-octanol/water	no data available
log Pow	no data available
Autoignition temperature	no data available
Viscosity, dynamic	(ca.) 20,000 mPa.s

Viscosity, kinematic	no data available
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10. STABILITY AND REACTIVITY

Stability

No hazards to be specially mentioned.

Conditions to avoid

Exposure to moisture., Freezing temperatures.

Incompatible products

Acids, Bases, Amines, Ammonia, water, Strong oxidizing agents, chlorinated rubber, Copper alloys, aluminum, Iron, Zinc

Hazardous decomposition products

carbon dioxide and carbon monoxide, nitrogen compounds, Hydrogen cyanide (hydrocyanic acid), Isocyanates, nitrogen oxides (NOx)

Hazardous reactions

Hazardous polymerisation does not occur.

11. TOXICOLOGICAL INFORMATION

Routes of exposure

Skin contact, Eye Contact, Ingestion

Eye contact

Causes eye irritation.

Skin contact

Causes skin irritation.

Ingestion

Not known to be harmful if swallowed.

Inhalation

Harmful by inhalation. May cause allergic respiratory reaction.

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Upper respiratory tract, Skin, lung (for example, asthma-like conditions)

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), Cough, Headache, chest pain, Difficulty in breathing, lung edema (fluid buildup in the lung tissue), Exposure to this product (or a component) may cause an allergic reaction (narrowing of the air passages of the lungs resulting in difficult breathing, tightness in the chest, coughing and wheezing) in some sensitive individuals. Other symptoms of an allergic reaction may include itchy and watery eyes, runny and stuffy nose, sweating, flushing, hives, rapid heart rate, and lowered blood pressure.

Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: nasal damage, lung damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: effects on lung function

Component data

4,4'-Methylenediphenyl diisocyanate	TRGS 905	Carcinogenic Category 3
The basis for the evaluation of this substance were compiled by the AGS and can be accessed as Announcements of the AGS at www.baua.de/prax/ags/begr_05.htm .		
Deviation from EU classification according to Annex I of Directive 67/548/EEC.		

Acute oral toxicity

4,4'-Methylenediphenyl diisocyanate	LD 50 Rat: 9,200 mg/kg
Calcium oxide	no data available
Disodium oxide	no data available
o-(p-Isocyanatobenzyl)phenyl isocyanate	no data available

Acute inhalation toxicity

4,4'-Methylenediphenyl diisocyanate	LC 50 Rat: 0.369 mg/l , 4 h
Calcium oxide	no data available
Disodium oxide	no data available
o-(p-Isocyanatobenzyl)phenyl isocyanate	no data available

Acute dermal toxicity

4,4'-Methylenediphenyl diisocyanate	LD 50 Rabbit: > 7,900 mg/kg
Calcium oxide	no data available
Disodium oxide	no data available
o-(p-Isocyanatobenzyl)phenyl isocyanate	no data available

12. ECOLOGICAL INFORMATION

Product information**Aquatic toxicity**

no data available

Environmental fate and pathways**Biodegradation**

no data available

Bioaccumulation

The bioaccumulation potential cannot be determined.

13. DISPOSAL CONSIDERATIONS**Waste disposal methods**

Dispose of in accordance with the European Directives on waste and hazardous waste. Do not contaminate ponds, waterways or ditches with chemical or used container. Container hazardous when empty. Dispose of in accordance with local regulations.

Empty packaging

Empty remaining contents. Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

European Waste Catalogue

080501 waste isocyanates

14. TRANSPORT INFORMATION**ADR**

Not dangerous goods

ADNR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA_P

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BPAB50S

Not dangerous goods

IATA_C

Not dangerous goods

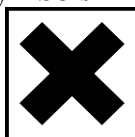
Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

Product Use Description

professional use

Hazard symbols



Harmful

R-phrases(s)

R20	Harmful by inhalation.
R36/37/38	Irritating to eyes, respiratory system and skin.
R40	Limited evidence of a carcinogenic effect.
R42/43	May cause sensitization by inhalation and skin contact.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.

S-phrases(s)

S23	Do not breathe vapour.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S51	Use only in well-ventilated areas.

Contains

4,4'-Methylenediphenyl diisocyanate	CAS 101-68-8
o-(p-Isocyanatobenzyl)phenyl isocyanate	CAS 5873-54-1

WGK Identification Number:

WGK 1: slightly water endangering

16. OTHER INFORMATION**Full text of R-phrases referred to under sections 2 and 3**

R36/37/38	Irritating to eyes, respiratory system and skin.
R42/43	May cause sensitization by inhalation and skin contact.
R40	Limited evidence of a carcinogenic effect.
R20	Harmful by inhalation.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R36/38	Irritating to eyes and skin.
R34	Causes burns.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Conforms to EU Directive 1907/2006/EC - MSDS_GB

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Brown Brothers Distribution Limited
Wellington House, Starley Way
Birmingham International Park, Solihull
West Midlands B37 7HB

www.brownbrothers.com

Emergency telephone
0121 7817208

Product Information
0121 7817208

Product name	Plastic Repair Adhesive Black Standard
Product code	BDPBPAB50S
Product Use Description	no data available

2. HAZARDS IDENTIFICATION**Hazard Summary****Risks**

Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 1999/45/EC.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	EINECS-No.	Concentration	Symbol(s)	R-phrases
No dangerous ingredients according to Regulation (EC) No. 1907/2006					

4. FIRST AID MEASURES**General Information**

First aid is not normally required. If symptoms develop, seek medical attention.

Eyes

Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.
Remove contact lenses.

Skin

Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water.

Ingestion

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Inhalation

Move to fresh air. If symptoms persist, call a physician. In case of shortness of breath, give oxygen.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

ABC powder, Water mist, Carbon dioxide (CO₂), Dry chemical

Unsuitable extinguishing media

DO NOT USE: Halons

Hazardous combustion products

halogenated hydrocarbons, nitrogen oxides (NO_x), toxic fumes, carbon dioxide and carbon monoxide

Thermal decomposition

no data available

Precautions for fire-fighting

Do not allow run-off from fire fighting to enter drains or water courses. Keep containers and surroundings cool with water spray. Prevent fire extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Personal protective equipment

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Large spills should be collected mechanically (remove by pumping) for disposal. Keep in suitable, closed containers for disposal.

Other information

Comply with all applicable federal, state, and local regulations.

7. HANDLING AND STORAGE**Handling**

Do not breathe vapours or spray mist. For personal protection see section 8. Avoid exceeding of the given occupational exposure limits (see section 8). Smoking, eating and drinking should be prohibited in the application area. No special handling advice required. Normal measures for preventive fire protection.

Storage

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Stable under recommended storage conditions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines****General advice**

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure (from known, suspected or apparent adverse effects).

Eye protection

Safety glasses with side-shields

Skin and body protection

Wear as appropriate:

Safety shoes

Not normally required.

Wear resistant gloves such as:

Polyethylene

Respiratory protection

No personal respiratory protective equipment normally required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	no data available
Colour	black
Odour	no data available
Boiling point/boiling range	no data available
Melting point/range	no data available
pH	no data available
Flash point	(>) 93.40 °C, Seta closed cup
Evaporation rate	no data available
Lower explosion limit/Upper explosion limit	no data available
Vapour pressure	
Vapour density	no data available
Density	1.225 g/cm ³ @ 77.00 °F / 25.00 °C
Solubility	no data available
Partition coefficient: n-octanol/water	no data available
log Pow	no data available
Autoignition temperature	no data available
Viscosity, dynamic	20,000 mPa.s
Viscosity, kinematic	no data available

10. STABILITY AND REACTIVITY**Stability**

No hazards to be specially mentioned.

Conditions to avoid

heat

Incompatible products

Strong acids, Strong oxidizing agents, isocyanates, oxidizers

Hazardous decomposition products

Aldehydes, Organic acids, ketones, halogenated hydrocarbons, nitrogen oxides (NO_x), carbon dioxide and carbon monoxide

Hazardous reactions

Hazardous polymerisation does not occur.

11. TOXICOLOGICAL INFORMATION

Routes of exposure

Skin contact, Eye Contact, Ingestion

Eye contact

no data available

Skin contact

According to the classification criteria of the European Union, the product is not considered as being a skin irritant.

Ingestion

Not known to be harmful if swallowed.

Inhalation

Not known to be harmful if inhaled.

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: lung (for example, asthma-like conditions)

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: irritation (nose, throat, airways)

Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: effects on lung function

Component data

no data available

12. ECOLOGICAL INFORMATION

Product information

Aquatic toxicity

no data available

Environmental fate and pathways

Biodegradation

no data available

Bioaccumulation

The bioaccumulation potential cannot be determined.

13. DISPOSAL CONSIDERATIONS**Waste disposal methods**

Dispose of in accordance with the European Directives on waste and hazardous waste. Container hazardous when empty. Dispose of in accordance with local regulations.

Empty packaging

Empty remaining contents.

European Waste Catalogue

The Waste code should be assigned in discussion between the user and the waste disposal company.

14. TRANSPORT INFORMATION**ADR**

Not dangerous goods

ADNR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA_P

Not dangerous goods

IATA_C

Not dangerous goods

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

Product Use Description

no data available

Hazard symbols

none

R-phrases(s)**S-phrase(s)****Contains**

Contains[Piperazine] - May produce an allergic reaction.

16. OTHER INFORMATION**Full text of R-phrases referred to under sections 2 and 3**

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Conforms to Regulation (EU) No. 1907/2006 - MSDS_DE

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Brown Brothers Distribution Limited Wellington House, Starley Way Birmingham International Park, Solihull West Midlands B37 7HB www.brownbrothers.com	Emergency telephone 0121 7817208 Product Information 0121 7817208
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Product name	Plastic Repair Adhesive Black (Slow)
Product code	BPAB50X
Product Use Description	Adhesives

2. HAZARDS IDENTIFICATION

Hazard Summary	Harmful Irritant
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Risks	Harmful by inhalation., Harmful: danger of serious damage to health by prolonged exposure through inhalation. Limited evidence of a carcinogenic effect. May cause sensitization by inhalation and skin contact. Irritating to eyes, respiratory system and skin.
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3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	EINECS-No.	Concentration	Symbol(s)	R-phrases(s)
4,4'-Methylenediphenyl diisocyanate	101-68-8	202-966-0	>=25 - <40%	Carc.Cat.3 Xn Xi	R40 R20, R48/20 R36/37/38 R42/43
Calcium oxide	1305-78-8	215-138-9	>=1 - <2.5%	Xi	R36/38
Disodium oxide	1313-59-3	215-208-9	>=1 - <2.5%	C	R34
o-(p-Isocyanatobenzyl)phenyl isocyanate	5873-54-1	227-534-9	>=0.5 - <1%	Carc.Cat.3 Xn Xi	R40 R20, R48/20 R36/37/38 R42/43

For the full text of the R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General Information

Consult a physician. Show this safety data sheet to the doctor in attendance.

Eyes

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention. Remove contact lenses.

Skin

Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician.

Ingestion

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Inhalation

Move to fresh air. Consult a physician after significant exposure. If symptoms persist, call a physician. In case of shortness of breath, give oxygen.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

ABC powder, Water mist, Carbon dioxide (CO₂), Dry chemical

Unsuitable extinguishing media

DO NOT USE: Halons

Hazardous combustion products

carbon dioxide and carbon monoxide, nitrogen compounds, Hydrogen cyanide (hydrocyanic acid), Isocyanates, nitrogen oxides (NO_x)

Thermal decomposition

no data available

Precautions for fire-fighting

Do not allow run-off from fire fighting to enter drains or water courses. Keep containers and surroundings cool with water spray. Prevent fire extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Personal protective equipment

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not flush into surface water. Do not let product enter drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Neutralise with the following product(s): Ammonia Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Large spills should be collected mechanically (remove by pumping) for disposal. Keep in suitable, closed containers for disposal.

Other information

Comply with all applicable federal, state, and local regulations. Keep the container open.

7. HANDLING AND STORAGE

Handling

Avoid contact with skin and eyes. Do not breathe vapours or spray mist. For personal protection see section 8. Provide sufficient air exchange and/or exhaust in work rooms. Avoid exceeding of the given occupational exposure limits (see section 8). Smoking, eating and drinking should be prohibited in the application area. Normal measures for preventive fire protection.

Storage

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Stable under recommended storage conditions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

4,4'-Methylenediphenyl diisocyanate (CAS 101-68-8)			
TRGS 900	AGW:	0.05 mg/m ³	Fume and aerosol
DFG MAK	MAK:	0.05 mg/m ³	Inhalable fraction.
Calcium oxide (CAS 1305-78-8)			

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure (from known, suspected or apparent adverse effects).

Eye protection

Safety glasses with side-shields

Skin and body protection

Wear as appropriate:

Safety shoes

Wear resistant gloves such as:

Nitrile rubber

Respiratory protection

No personal respiratory protective equipment normally required.

In the case of vapour formation use a respirator with an approved filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	viscous
Colour	beige
Odour	no data available
Boiling point/boiling range	(>) 200.00 °C
Melting point/range	no data available
pH	no data available
Flash point	(>) 100.00 °C
Evaporation rate	(<) 1 (n-Butyl Acetate)
Lower explosion limit/Upper explosion limit	no data available
Vapour pressure	0.01 hPa @ 25 °C
Vapour density	(>) 1 (AIR=1)
Density	1.288 g/cm ³ @ 68 °F / 20 °C
Solubility	Water practically insoluble
Partition coefficient: n-octanol/water	no data available
log Pow	no data available
Autoignition temperature	no data available
Viscosity, dynamic	(ca.) 20,000 mPa.s

Viscosity, kinematic	no data available
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10. STABILITY AND REACTIVITY

Stability

No hazards to be specially mentioned.

Conditions to avoid

Exposure to moisture., Freezing temperatures.

Incompatible products

Acids, Bases, Amines, Ammonia, water, Strong oxidizing agents, chlorinated rubber, Copper alloys, aluminum, Iron, Zinc

Hazardous decomposition products

carbon dioxide and carbon monoxide, nitrogen compounds, Hydrogen cyanide (hydrocyanic acid), Isocyanates, nitrogen oxides (NOx)

Hazardous reactions

Hazardous polymerisation does not occur.

11. TOXICOLOGICAL INFORMATION

Routes of exposure

Skin contact, Eye Contact, Ingestion

Eye contact

Causes eye irritation.

Skin contact

Causes skin irritation.

Ingestion

Not known to be harmful if swallowed.

Inhalation

Harmful by inhalation. May cause allergic respiratory reaction.

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Upper respiratory tract, Skin, lung (for example, asthma-like conditions)

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), Cough, Headache, chest pain, Difficulty in breathing, lung edema (fluid buildup in the lung tissue), Exposure to this product (or a component) may cause an allergic reaction (narrowing of the air passages of the lungs resulting in difficult breathing, tightness in the chest, coughing and wheezing) in some sensitive individuals. Other symptoms of an allergic reaction may include itchy and watery eyes, runny and stuffy nose, sweating, flushing, hives, rapid heart rate, and lowered blood pressure.

Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: nasal damage, lung damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: effects on lung function

Component data

4,4'-Methylenediphenyl diisocyanate	TRGS 905	Carcinogenic Category 3
The basis for the evaluation of this substance were compiled by the AGS and can be accessed as Announcements of the AGS at www.baua.de/prax/ags/begr_05.htm .		
Deviation from EU classification according to Annex I of Directive 67/548/EEC.		

Acute oral toxicity

4,4'-Methylenediphenyl diisocyanate	LD 50 Rat: 9,200 mg/kg
Calcium oxide	no data available
Disodium oxide	no data available
o-(p-Isocyanatobenzyl)phenyl isocyanate	no data available

Acute inhalation toxicity

4,4'-Methylenediphenyl diisocyanate	LC 50 Rat: 0.369 mg/l , 4 h
Calcium oxide	no data available
Disodium oxide	no data available
o-(p-Isocyanatobenzyl)phenyl isocyanate	no data available

Acute dermal toxicity

4,4'-Methylenediphenyl diisocyanate	LD 50 Rabbit: > 7,900 mg/kg
Calcium oxide	no data available
Disodium oxide	no data available
o-(p-Isocyanatobenzyl)phenyl isocyanate	no data available

12. ECOLOGICAL INFORMATION

Product information**Aquatic toxicity**

no data available

Environmental fate and pathways**Biodegradation**

no data available

Bioaccumulation

The bioaccumulation potential cannot be determined.

13. DISPOSAL CONSIDERATIONS**Waste disposal methods**

Dispose of in accordance with the European Directives on waste and hazardous waste. Do not contaminate ponds, waterways or ditches with chemical or used container. Container hazardous when empty. Dispose of in accordance with local regulations.

Empty packaging

Empty remaining contents. Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

European Waste Catalogue

080501 waste isocyanates

14. TRANSPORT INFORMATION**ADR**

Not dangerous goods

ADNR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA_P

Page 7 of 9

BPAB50X

Not dangerous goods

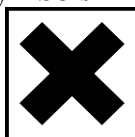
IATA_C

Not dangerous goods

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION**Product Use Description**

professional use

Hazard symbols

Harmful

R-phrases(s)

R20	Harmful by inhalation.
R36/37/38	Irritating to eyes, respiratory system and skin.
R40	Limited evidence of a carcinogenic effect.
R42/43	May cause sensitization by inhalation and skin contact.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.

S-phrases(s)

S23	Do not breathe vapour.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S51	Use only in well-ventilated areas.

Contains

4,4'-Methylenediphenyl diisocyanate	CAS 101-68-8
o-(p-Isocyanatobenzyl)phenyl isocyanate	CAS 5873-54-1

WGK Identification Number:

WGK 1: slightly water endangering

16. OTHER INFORMATION**Full text of R-phrases referred to under sections 2 and 3**

R36/37/38	Irritating to eyes, respiratory system and skin.
R42/43	May cause sensitization by inhalation and skin contact.
R40	Limited evidence of a carcinogenic effect.
R20	Harmful by inhalation.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R36/38	Irritating to eyes and skin.
R34	Causes burns.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Conforms to EU Directive 1907/2006/EC - MSDS_GB

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Brown Brothers Distribution Limited
Wellington House, Starley Way
Birmingham International Park, Solihull
West Midlands B37 7HB

www.brownbrothers.com

Emergency telephone
0121 7817208

Product Information
0121 7817208

Product name	Plastic Repair Adhesive Black Slow
Product code	BDPBPAB50X
Product Use Description	no data available

2. HAZARDS IDENTIFICATION**Hazard Summary****Risks**

Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 1999/45/EC.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	EINECS-No.	Concentration	Symbol(s)	R-phrases
No dangerous ingredients according to Regulation (EC) No. 1907/2006					

4. FIRST AID MEASURES**General Information**

First aid is not normally required. If symptoms develop, seek medical attention.

Eyes

Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.
Remove contact lenses.

Skin

Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water.

Ingestion

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Inhalation

Move to fresh air. If symptoms persist, call a physician. In case of shortness of breath, give oxygen.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

ABC powder, Water mist, Carbon dioxide (CO₂), Dry chemical

Unsuitable extinguishing media

DO NOT USE: Halons

Hazardous combustion products

toxic fumes, carbon dioxide and carbon monoxide

Thermal decomposition

no data available

Precautions for fire-fighting

Do not allow run-off from fire fighting to enter drains or water courses. Keep containers and surroundings cool with water spray. Prevent fire extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Personal protective equipment

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Large spills should be collected mechanically (remove by pumping) for disposal. Keep in suitable, closed containers for disposal.

Other information

Comply with all applicable federal, state, and local regulations.

7. HANDLING AND STORAGE**Handling**

Do not breathe vapours or spray mist. For personal protection see section 8. Avoid exceeding of the given occupational exposure limits (see section 8). Smoking, eating and drinking should be prohibited in the application area. No special handling advice required. Normal measures for preventive fire protection.

Storage

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Stable under recommended storage conditions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines****General advice**

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure (from known, suspected or apparent adverse effects).

Eye protection

Safety glasses with side-shields

Skin and body protection

Wear as appropriate:

Safety shoes

Not normally required.

Wear resistant gloves such as:

Polyethylene

Respiratory protection

No personal respiratory protective equipment normally required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	no data available
Colour	black
Odour	no data available
Boiling point/boiling range	no data available
Melting point/range	no data available
pH	no data available
Flash point	(>) 93.40 °C, Seta closed cup
Evaporation rate	1 (Ethyl Ether)
Lower explosion limit/Upper explosion limit	no data available
Vapour pressure	3.00 hPa @ 25 °C, Calculated Vapor Pressure
Vapour density	no data available
Density	1.23 g/cm ³ @ 77.00 °F / 25.00 °C
Solubility	no data available
Partition coefficient: n-octanol/water	no data available
log Pow	no data available
Autoignition temperature	no data available
Viscosity, dynamic	20,000 mPa.s
Viscosity, kinematic	no data available

10. STABILITY AND REACTIVITY**Stability**

No hazards to be specially mentioned.

Conditions to avoid

heat

Incompatible products

Strong acids, Strong oxidizing agents, isocyanates, oxidizers

Hazardous decomposition products

Aldehydes, ketones, Organic acids, carbon dioxide and carbon monoxide

Hazardous reactions

Hazardous polymerisation does not occur.

11. TOXICOLOGICAL INFORMATION

Routes of exposure

Skin contact, Eye Contact, Ingestion, Inhalation

Eye contact

no data available

Skin contact

According to the classification criteria of the European Union, the product is not considered as being a skin irritant.

Ingestion

Not known to be harmful if swallowed.

Inhalation

Not known to be harmful if inhaled.

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: lung (for example, asthma-like conditions)

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: irritation (nose, throat, airways)

Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: effects on lung function

Component data

no data available

12. ECOLOGICAL INFORMATION**Product information****Aquatic toxicity**

no data available

Environmental fate and pathways**Biodegradation**

no data available

Bioaccumulation

The bioaccumulation potential cannot be determined.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Dispose of in accordance with the European Directives on waste and hazardous waste. Container hazardous when empty. Dispose of in accordance with local regulations.

Empty packaging

Empty remaining contents.

European Waste Catalogue

The Waste code should be assigned in discussion between the user and the waste disposal company.

14. TRANSPORT INFORMATION

ADR

Not dangerous goods

ADNR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA_P

Not dangerous goods

IATA_C

Not dangerous goods

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

Product Use Description

no data available

Hazard symbols

none

R-phrases(s)**S-phrase(s)****Contains**

Contains[Piperazine] - May produce an allergic reaction.

16. OTHER INFORMATION**Full text of R-phrases referred to under sections 2 and 3**

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

MSDS

Safety Data Sheet for: Plastic Repair Adhesive Clear - Part A

Date of Issue: 4/10/10

Page 1 of 3

1. Identification

Name of Substance or Preparation: Plastic Repair Adhesive Clear - Part A

2. Composition and Ingredients

Substance? No **Substance Name:** N/A
CAS Number: N/A **EC Index Number:** N/A
EEC Number: N/A

Components Contributing% by Wt. to Hazard Classification	CAS No	Hazard Risk phrases
None		

3. Hazards Identification

CHIP Classification: -
Risk Phrases: -
Other Information: -

4. First Aid Measures

Immediate medical attention required? No
Professional assistance from physician required? No
Inhalation: Remove to fresh air and allow to rest.
Skin Contact: Wash contaminated area with soap and water. Use skin cream to prevent dryness. Launder contaminated clothing.
Eye Contact: Flush immediately with water for 10-15 minutes prising eyelids open with fingers. If irritation persists seek medical attention.
Ingestion: Give plenty of water to drink and seek medical attention.

5. Fire Fighting Measures

Extinguishing Media
Suitable: Foam, dry chemical, CO₂, water mist.
Not to be used: Water as jet.
Other Comments: Where large quantities are involved breathing apparatus should be used.
Special Exposure Hazards: None
Special Fire Fighting Procedures: None.
Protective Equipment Required: Where large quantities are involved breathing apparatus should be used.

6. Accidental Release Measures

Personal Precautions

Wear suitable protective clothing.

Environmental Precautions

Do not allow to enter drains or watercourses

Clean-Up Procedures

Use absorbent (e.g. sawdust, earth or sand) and sweep up into suitable disposal container.

7. Handling and Storage

Handling

Observe standard industrial hygiene practices.

Storage

Store in a dry place at 5-25°C in tightly sealed original containers.

8. Exposure Controls

Take Measures to Prevent:

Contact with eyes.

Exposure Control Limits: -

-

Respiratory Protection:

Normal ventilation should be adequate for this product. However this is used in conjunction with an isocyanate; refer to that Safety Data Sheet for further details.

Hand Protection:

Wear suitable gloves.

Skin Protection:

Wear suitable protective clothing.

Eye Protection:

Wear goggles or safety glasses. Locate eyewash bottle in immediate area of work.

9. Physical and Chemical Properties

Appearance:

Liquid

Explosive Properties:

N/A

Colour:

White/natural

Oxidising Properties:

N/A

pH:

N/A

Vapour Pressure:

Very low

Boiling Point:

N/M

Relative Density:

1.05

Melting Point:

N/M

Solubility in Water:

Insoluble

Flashpoint:

>200°C

Other: -**Flammability:**

Not flammable

Key:

N/A - Not Applicable, N/M - Not Measured

10. Stability and Reactivity

Conditions to Avoid:

Naked flame, extremes of temperature.

Materials to Avoid:

Isocyanates, strong acids and oxidising agents.

Hazardous Decomposition Products:

Above 200°C and on combustion - oxides of carbon.

11. Toxicological Information

-

12. Ecological Information

This product is, in part, biodegradable. However it does contain small quantities of materials which may be harmful to aquatic life.

13. Disposal Considerations

Likely residues and waste products:

None

Safe handling of residues and waste product:

Dispose of by controlled incineration or authorized landfill in accordance with local authority regulations.

14. Transport Information

UN No.: - **ADR/VLG:** - **ADNR/VBG:** - **RID/VSG:** - **IMO/IMDG:** - **ICAO/IATA:** -

This product is not classified as hazardous for transport.

Date of Issue: 4/10/10

15. Regulatory Information**Supply Label Information:**

-

Risk Phrases: -

Safety Phrases: S36 Wear suitable protective clothing

Other: -

16. Other Information**Training advice:**

Please read all datasheets carefully. If any point remains unclear or if further training is required please contact Your supplier

Recommended uses and restrictions: Polyol component for two-part polyurethane elastomer in conjunction with an isocyanate. No other use recommended.

Further information sources: Please refer to the Safety Data Sheet for the accompanying part for further information.

NOTE: This SDS has been prepared from information we believe to be reliable, however it is provided without warranty, expressed or implied, as to its correctness. Since the conditions of handling, storage, use and disposal of this material are beyond our control we accept no responsibility whatsoever for any loss, damage or expense which results from the handling, storage, use or disposal of this material.

Date of Issue: 4/10/10

MSDS

Safety Data Sheet for: Plastic Repair Adhesive Clear - Part B

1. Identification

Name of Substance or Preparation: **Plastic Repair Adhesive Clear - Part B**

2. Composition and Ingredients

Substance? No Substance Name: N/A
 CAS Number: N/A EC Index Number: N/A
 EEC Number: N/A

Components Contributing to Hazard Classification	% by Wt	CAS No	Hazard	Risk phrases
Modified Diphenylmethane diisocyanate (MDI), mixture of isomers	>60%	009016-87-9	Harmful	R20 - Harmful by inhalation R36/37/38 - Irritating to eyes, respiratory system, and skin. R40: Limited evidence of a carcinogenic effect. R42/43 - May cause sensitisation by inhalation & skin contact. R48/20: Danger of serious damage to health by prolonged exposure.

3. Hazards Identification

CHIP Classification: HARMFUL
Risk Phrases: R20 Harmful by inhalation
 R36/37/38 Irritating to eyes, respiratory system, and skin.
 R40 Limited evidence of a carcinogenic effect.
 R42/43 May cause sensitisation by inhalation & skin contact.
 R48/20 Danger of serious damage to health by prolonged exposure.

Other Information: Vapour hazard is low at room temperature. If heated or sprayed high concentrations can be attained that could be hazardous on single exposure and may cause irritation of upper respiratory tract and lungs. Exposure to vapour may cause sensitisation in susceptible individuals. Contact with eyes may cause irritation with corneal injury. Prolonged or repeated skin contact may cause irritation. Oral LD₅₀ is low however ingestion may cause severe burns of mouth and throat.

4. First Aid Measures

Immediate medical attention required? Yes

Professional assistance from physician required? Yes

Inhalation: Remove to fresh air and allow to rest. If not breathing give artificial respiration. Obtain medical attention and keep under observation for up to 48 hours as effects can be delayed.

Skin Contact: Wash contaminated area with soap and water. Use skin cream to prevent dryness. Launder contaminated clothing.

Eye Contact: Flush immediately with water for 10-15 minutes prising eyelids open with fingers. Seek medical attention

Ingestion: immediately.
Do not induce vomiting and give nothing by mouth. Seek medical attention.

5. Fire Fighting Measures

Extinguishing Media

Suitable: Foam, dry chemical, CO₂, water mist. in large quantities

Not to be used: Small quantities of water.

Other Comments: Where large quantities are involved breathing apparatus should be used.

Special Exposure Hazards: May produce toxic vapours during combustion.

Special Fire Fighting Procedures: Evacuate downwind personnel.

Protective Equipment Required: Positive pressure self-contained breathing apparatus should be used.

6. Accidental Release Measures

Personal Precautions Evacuate unnecessary personnel. Wear suitable protective clothing including positive pressure self-contained breathing apparatus

Environmental Precautions Do not allow to enter drains or watercourses

Clean-Up Procedures Supplies of suitable decontaminant should be readily available. Contact Supplier for details if required. Cover spillage with solid decontaminant, sawdust, sand or earth and allow to react for 30 minutes minimum. Sweep into open drums and remove for further decontamination and disposal. Wash spillage area with water and test for isocyanate vapours before allowing personnel into the area.

7. Handling and Storage

Handling Do not allow to come into contact with water. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Use only in a well ventilated place with local exhaust ventilation where necessary to ensure that the OEL for MDI is not exceeded.

Storage Contact with moisture liberates carbon dioxide gas, which can cause dangerous pressure build-up in closed Containers Store in a dry place at 15-25°C in tightly sealed original containers.

8. Exposure Controls

Take Measures to Prevent: Build up of vapours. Contact with water or atmospheric moisture. Inhalation of vapour. Contact with skin and eyes.

Exposure Control Limits:
Isocyanates (all) - MEL: Long Term (8 hour) 0.02 mg/m³
Short Term (15 min.) 0.07 mg/m³

Respiratory Protection: Vapour levels should be maintained below the control limits. Where necessary use suitable breathing equipment.

Hand Protection: Wear suitable gloves.

Skin Protection: Wear suitable protective clothing.

Eye Protection: Wear goggles or safety glasses. Locate eyewash bottle in immediate area of work.

9. Physical and Chemical Properties

Appearance: Liquid

Colour: Pale straw

pH: N/A

Boiling Point: >185°C

Melting Point: <150°C

Flashpoint: Boils without flashing

Other: -

Key: N/A Not Applicable, N/M Not Measured

Explosive Properties: N/A

Oxidising Properties: N/A

Vapour Pressure: Very low

Relative Density: 1.06

Solubility in Water: Insoluble, reacts with evolution of CO₂

Flammability: Not flammable

10. Stability and Reactivity

Conditions to Avoid: Excessive heat.
Materials to Avoid: Acids, alcohols, amines, bases, water, galvanised metals, copper and its alloys.
Hazardous Decomposition Products: Oxides of nitrogen and carbon, hydrogen cyanide, other hazardous gaseous products.

11. Toxicological Information

MDI LD₅₀ oral, rat > 2000 mg/kg. Single dose oral toxicity is considered to be low.

12. Ecological Information

Reaction with water produces insoluble polyurea, which is estimated from static laboratory conditions to have a low level of biodegradation. This material is estimated to be practically non-toxic to fish, Daphnia and bacteria on a static acute basis.

13. Disposal Considerations

Likely residues and waste products: Small quantities of waste should be reacted with polyol to neutralise prior to disposal. Empty drums should be decontaminated and scrapped.
Safe handling of residues and waste product: Dispose of neutralised residues by controlled incineration or approved landfill in accordance with local authority regulations.

14. Transport Information

Proper Shipping Name: DIPHENYLMETHANE-4,4-DIISOCYANATE
UN No.: - **ADR/VLG:** - **ADNR/VBG:** - **RID/VSG:** - **IMO/IMDG:** - **ICAO/IATA:** -
This product is not classified as hazardous for transport.

15. Regulatory Information

Supply Label Information:

HARMFUL

Risk Phrases: R20 Harmful by inhalation

R36/37/38 Irritating to eyes, respiratory system and skin
R40 Limited evidence of a carcinogenic effect.
R42/43 May cause sensitisation by inhalation & skin contact.
R48/20 Danger of serious damage to health by prolonged exposure.

Safety Phrases: S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S28 After contact with skin, wash immediately with plenty of water and soap
S38 In case of insufficient ventilation, wear suitable respiratory equipment
S45 In case of accident or if you feel unwell, seek medical advice immediately (show this label where possible).

Other:

16. Other Information

Training advice: Please read all datasheets carefully. If any point remains unclear or if further training is required please contact Supplier

Recommended uses and restrictions: Isocyanate component for two-part polyurethane in conjunction with a polyol. No other use recommended.

Further information sources: Please refer to the Safety Data Sheet for the associated component for further information.

NOTE: This SDS has been prepared from information we believe to be reliable, however it is provided without warranty, expressed or implied, as to its correctness. Since the conditions of handling, storage, use and disposal of this material are beyond our control we accept no responsibility whatsoever for any loss, damage or expense which results from the handling, storage, use or disposal of this material.