

Printing Date: 16.02.2005

Reviewed On: 16.02.2005

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

PRODUCT DETAILS

Trade name: **Servijoint Two Part A**

Manufacturer/supplier:

Grace Construction Products
Ajax Avenue,
Slough,
Berks.
SL1 4BH

Tel: ++44 (0)1753 692929

Fax: ++44 (0)1753 691623

www.graceconstruction.com

Information in case of emergency: ++44 (0)208 762 8322

2 COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERIZATION

Description:

Mixture of substances listed below with non-hazardous additions.

For further information, please refer to the product technical data sheet.

Dangerous components:

CAS: 85535-84-8 EINECS: 287-476-5	Alkanes, C10-13, chloro ☒ Xn, ☒ N; R 40-50/53	50-100%
	4,4'-diphenylmethane diisocyanate isomers/homologues ☒ Xn; R 20-36/37/38-42/43	10-20%
CAS: 9016-87-9	Diphenylmethanediisocyanate, isomers and homologues ☒ Xn; R 20-36/37/38-42/43	10-20%

Additional information: For the wording of the listed risk phrases refer to section 16.

3 HAZARDS IDENTIFICATION

Hazard description:



Xn Harmful
N Dangerous for the environment

Information concerning particular hazards for human and environment:

The product has to be labelled in accordance with applicable regulations.

R 20 Harmful by inhalation.

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 40 Limited evidence of a carcinogenic effect.

R 42/43 May cause sensitisation by inhalation and skin contact.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Contains isocyanates. See information supplied by the manufacturer

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4 FIRST-AID MEASURES

General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

Take affected persons into fresh air and keep quiet.
Seek immediate medical advice.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.

After eye contact:

Rinse opened eye for several minutes under running water.
Seek immediate medical advice.

After swallowing:

Wash out mouth with water.
Do not induce vomiting; call for medical help immediately.
Never give anything by mouth to an unconscious person.

5 FIRE-FIGHTING MEASURES

Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray.

Protective equipment: Wear self-contained respiratory protective device.

Additional information:

Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 ACCIDENTAL RELEASE MEASURES

Person-related safety precautions:

Ensure adequate ventilation.
Wear protective equipment. Keep unprotected persons away.
Wear protective clothing.

Measures for environmental protection: Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting:

Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, universal binders).
Send for recovery or disposal in suitable receptacles.
Dispose contaminated material as waste according to item 13.

7 HANDLING AND STORAGE

HANDLING

Information for safe handling:

Open and handle receptacle with care.
Prevent formation of aerosols.
Store in original containers.

Information about fire - and explosion protection: No special measures required.

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STORAGE

Information about storage in one common storage facility: No special measures required.

Further information about storage conditions:

Protect from frost.

Store in cool, dry conditions in well sealed receptacles.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with limit values that require monitoring at the workplace:

4,4'-diphenylmethane diisocyanate isomers/homologues

OEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ EH40
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9016-87-9 Diphenylmethanediisocyanate, isomers and homologues

MEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
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Additional information: Based on the lists valid at the date of MSDS creation.

PERSONAL PROTECTIVE EQUIPMENT

General protective and hygienic measures:

Avoid contact with the eyes and skin.

Do not inhale dust / smoke / mist.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Due to the presence of isocyanate, supplied air respirators must be worn whenever the product is spray applied and/or applied in poorly ventilated areas unless local exhaust will maintain exposures below acceptable limits.

A chemical cartridge respirator with organic vapour cartridge is required when local exhaust is unavailable or inadequate to control exposures below required limits.

When supplied-air respirators are not available or use is not practical, an air-purifying respirator may be an acceptable alternative if the recommendations below are followed:

Use of fans to improve air circulation and general ventilation or exhaust ventilation to remove MDI vapours when working in confined spaces.

The use of an air-purifying respirator fitted with organic vapour cartridge and a well managed cartridge change schedule. Due to the low exposure limits and poor odour warning properties, cartridges should be replaced on a daily basis at a minimum.

To complement the above, a viable isocyanate measurement system should be used to monitor workplace levels.

More detailed information is provided in our Technical Note "Bituthene® Liquid Membrane: Ventilation and respiratory protection guidelines" which also refers to "HSG53 Respiratory Protective Equipment - A practical guide Second Edition 1998" published in the UK by HSE Books (ISBN 0 7176 15375)".

Protection of hands: Protective gloves.

Material of gloves: Rubber gloves.

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Eye protection:

Tightly sealed goggles.

Face protection.

Body protection: Protective work clothing.

9 PHYSICAL AND CHEMICAL PROPERTIES

GENERAL INFORMATION

Form:	Liquid.
Colour:	According to product specification.
Odour:	Characteristic.

Change in conditions:-

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 100°C

Flash point:	> 100°C
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Self-igniting:	Product is not self-igniting.
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Danger of explosion:	Product does not present an explosion hazard.
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Relative density at 20°C:	1.240 g/cm ³
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Solubility in/Miscibility with:-	Not miscible or difficult to mix.
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Additional information:	These are typical values and do not constitute a specification.
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10 STABILITY AND REACTIVITY

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Dangerous reactions:

Reacts with alcohols, amines, aqueous acids and alkalis.
 Reacts with alkaline metals.
 Reacts with strong oxidizing agents.
 Reacts with earth alkaline metals.

Dangerous decomposition products:

Hydrogen chloride (HCl)
 Hydrogen cyanide (prussic acid)
 Isocyanate
 Carbon monoxide and carbon dioxide.
 Nitrogen oxides (NO_x)

11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY**Primary irritant effect:-**

on the skin: Irritant to skin and mucous membranes.

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on the eye: Irritating effect.

Sensitization:

Sensitization possible through inhalation.
Sensitization possible through skin contact.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful
Irritant

12 ECOLOGICAL INFORMATION

ECOTOXICAL EFFECTS

Remark: Very toxic for fish

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms

13 DISPOSAL CONSIDERATIONS

PRODUCT**Recommendation:**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue:

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 04 00	wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 09	waste adhesives and sealants containing organic solvents or other dangerous substances
08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 05 00	wastes not otherwise specified in 08
08 05 01	waste isocyanates

UNCLEANED PACKAGING

Recommendation: Disposal must be made according to official regulations.

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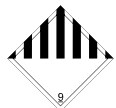
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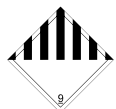
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Trade name: **Servijoint Two Part A**

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14 TRANSPORT INFORMATION**LAND TRANSPORT ADR/RID (cross-border)**

ADR/RID class: 9 Miscellaneous dangerous substances and articles.
Danger code (Kemler): 90
UN-Number: 3082
Packaging group: III
Hazard label: 9
Description of goods: 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alkanes, C10-13, chloro)

MARITIME TRANSPORT IMDG

IMDG Class: 9
UN Number: 3082
Label: 9
Packaging group: III
Marine pollutant: Yes
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alkanes, C10-13, chloro)

AIR TRANSPORT ICAO-TI AND IATA-DGR

ICAO/IATA Class: -

15 REGULATORY INFORMATION**Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals.
 The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

Code letter and hazard designation of product:

Xn Harmful
 N Dangerous for the environment

Hazard-determining components of labelling:

Alkanes, C10-13, chloro
 Diphenylmethanediisocyanate, isomers and homologues

Risk phrases:

20 Harmful by inhalation.
 36/37/38 Irritating to eyes, respiratory system and skin.
 40 Limited evidence of a carcinogenic effect.
 42/43 May cause sensitisation by inhalation and skin contact.

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50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

- 2 Keep out of the reach of children.
- 9 Keep container in a well-ventilated place.
- 13 Keep away from food, drink and animal feedingstuffs.
- 23 Do not breathe gas/fumes/vapour/spray.
- 25 Avoid contact with eyes.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
- 36/37 Wear suitable protective clothing and gloves.
- 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- 51 Use only in well-ventilated areas.
- 52 Not recommended for interior use on large surface areas.
- 57 Use appropriate container to avoid environmental contamination.
- 60 This material and its container must be disposed of as hazardous waste.
- 63 In case of accident by inhalation: remove casualty to fresh air and keep at rest.
- 64 If swallowed, rinse mouth with water (only if the person is conscious).

Special labelling of certain preparations:

Contains isocyanates. See information supplied by the manufacturer

Waterhazard class: WGK 1 (VwVwS Anhang 4 vom 19.05.1999): slightly hazardous for water.

Other regulations, limitations and prohibitive regulations: All components EINECS listed.

16 OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant R-phrases:

- 20 Harmful by inhalation.
- 36/37/38 Irritating to eyes, respiratory system and skin.
- 40 Limited evidence of a carcinogenic effect.
- 42/43 May cause sensitisation by inhalation and skin contact.
- 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Department issuing MSDS:

EHS Department, EMEA Region, Grace Performance Chemicals, Ajax Avenue, Slough, Berks. SL1 4BH
Tel: ++44 (0)1753 692929, Fax: ++44 (0)1753 637659

Other Information: SAP No.: 12585

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1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY**PRODUCT DETAILS**Trade name: Servijoint Two Part B**Manufacturer/supplier:**Grace Construction Products
Ajax Avenue,
Slough,
Berks.
SL1 4BH

Tel: ++44 (0)1753 692929

Fax: ++44 (0)1753 691623

www.graceconstruction.com

Information in case of emergency: ++44 (0)208 762 8322

2 COMPOSITION/INFORMATION ON INGREDIENTS**CHEMICAL CHARACTERIZATION****Description:**

Mixture of substances listed below with non-hazardous additions.

For further information, please refer to the product technical data sheet.

Dangerous components:

CAS: 85535-84-8	Alkanes, C10-13, chloro	 Xn,  N; R 40-50/53	20-30%
EINECS: 287-476-5			

Additional information: For the wording of the listed risk phrases refer to section 16.**3 HAZARDS IDENTIFICATION****Hazard description:**

Xn Harmful

N Dangerous for the environment

Information concerning particular hazards for human and environment:

The product has to be labelled in accordance with applicable regulations.

R 40 Limited evidence of a carcinogenic effect.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4 FIRST-AID MEASURES**After inhalation:**

Take affected persons into fresh air and keep quiet.

Seek immediate medical advice.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

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After eye contact:

Rinse opened eye for several minutes under running water.
Seek immediate medical advice.

After swallowing:

Wash out mouth with water.
Do not induce vomiting; call for medical help immediately.
Never give anything by mouth to an unconscious person.

5 FIRE-FIGHTING MEASURES

Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray.

Protective equipment: Wear self-contained respiratory protective device.

Additional information:

Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 ACCIDENTAL RELEASE MEASURES

Person-related safety precautions:

Ensure adequate ventilation.
Wear protective equipment. Keep unprotected persons away.
Wear protective clothing.

Measures for environmental protection: Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting:

Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, universal binders).
Send for recovery or disposal in suitable receptacles.
Dispose contaminated material as waste according to item 13.

7 HANDLING AND STORAGE

HANDLING

Information for safe handling:

Open and handle receptacle with care.
Prevent formation of aerosols.
Store in original containers.

Information about fire - and explosion protection: No special measures required.

STORAGE

Information about storage in one common storage facility: No special measures required.

Further information about storage conditions:

Protect from frost.
Store in cool, dry conditions in well sealed receptacles.

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Trade name: Servijoint Two Part B

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8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: Based on the lists valid at the date of MSDS creation.

PERSONAL PROTECTIVE EQUIPMENT
General protective and hygienic measures:

Avoid contact with the eyes and skin.

Do not inhale dust / smoke / mist.

Keep away from foodstuffs, beverages and feed.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands: Protective gloves.

Material of gloves: Rubber gloves.

Eye protection:


Tightly sealed goggles.

Face protection.

Body protection: Protective work clothing.

9 PHYSICAL AND CHEMICAL PROPERTIES

GENERAL INFORMATION

Form:	Paste.
Colour:	According to product specification.
Odour:	Characteristic.

Change in conditions:-

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 100°C

Flash point: > 100°C

Self-igniting: Product is not self-igniting.

Danger of explosion: Product does not present an explosion hazard.

Relative density at 20°C: 1.500 g/cm³

Solubility in/Miscibility with:- Not miscible or difficult to mix.

Additional information: These are typical values and do not constitute a specification.

10 STABILITY AND REACTIVITY

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Dangerous reactions:

Reacts with alkaline metals.

Reacts with strong acids and oxidizing agents.

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Reacts with earth alkaline metals.

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Dangerous decomposition products:

Hydrogen chloride (HCl)
Carbon monoxide and carbon dioxide.

11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Primary irritant effect:-

on the skin: May be irritating to the skin on prolonged contact.

on the eye: May be irritating to the eyes.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

12 ECOLOGICAL INFORMATION

ECOTOXICAL EFFECTS

Remark: Very toxic for fish

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms

13 DISPOSAL CONSIDERATIONS

PRODUCT

Recommendation:



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue:

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 04 00	wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 09	waste adhesives and sealants containing organic solvents or other dangerous substances

UNCLEANED PACKAGING

Recommendation: Disposal must be made according to official regulations.

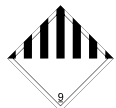
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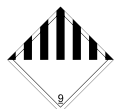
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Trade name: **Servijoint Two Part B**

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14 TRANSPORT INFORMATION**LAND TRANSPORT ADR/RID (cross-border)**

ADR/RID class: 9 Miscellaneous dangerous substances and articles.
Danger code (Kemler): 90
UN-Number: 3082
Packaging group: III
Hazard label: 9
Description of goods: 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alkanes, C10-13, chloro)

MARITIME TRANSPORT IMDG

IMDG Class: 9
UN Number: 3082
Label: 9
Marine pollutant: Yes
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alkanes, C10-13, chloro)

AIR TRANSPORT ICAO-TI AND IATA-DGR**ICAO/IATA Class:** -**15 REGULATORY INFORMATION****Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals.

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

Code letter and hazard designation of product:

Xn Harmful
 N Dangerous for the environment

Hazard-determining components of labelling:

Alkanes, C10-13, chloro

Risk phrases:

40 Limited evidence of a carcinogenic effect.
 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

2 Keep out of the reach of children.
 13 Keep away from food, drink and animal feedingstuffs.

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- 23 Do not breathe gas/fumes/vapour/spray.
29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
36/37 Wear suitable protective clothing and gloves.
46 If swallowed, seek medical advice immediately and show this container or label.
52 Not recommended for interior use on large surface areas.
57 Use appropriate container to avoid environmental contamination.
60 This material and its container must be disposed of as hazardous waste.

Waterhazard class: WGK 1 (VwVwS Anhang 4 vom 19.05.1999): slightly hazardous for water.**Other regulations, limitations and prohibitive regulations:** All components EINECS listed.**16 OTHER INFORMATION**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant R-phrases:

- 40 Limited evidence of a carcinogenic effect.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Department issuing MSDS:

EHS Department, EMEA Region, Grace Performance Chemicals, Ajax Avenue, Slough, Berks. SL1 4BH
Tel: ++44 (0)1753 692929, Fax: ++44 (0)1753 637659

Other Information: SAP No.: 12585

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