

Rectavit Structan

1. Identification of the substance/preparation and of the company/undertaking

1.1 Identification of the substance or preparation:

Product name: Rectavit Structan

1.2 Use of the substance/preparation:

Adhesive

1.3 Company/undertaking identification:

Rectavit N.V.
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 Fax: +32 9 216 85 30
 msds@rectavit.be

1.4 Emergency telephone:

24h/24h: +32 14 58 45 45 (BIG)

2. Hazards identification

DSD/DPD

Classified dangerous in accordance with Directives 67/548/EEC and 1999/45/EC
 Irritating to eyes, respiratory system and skin
 Limited evidence of a carcinogenic effect
 May cause sensitisation by inhalation and skin contact
 Harmful: danger of serious damage to health by prolonged exposure through inhalation

3. Composition/information on ingredients

Name	CAS No EINECS/ELINCS	Conc.	Classification according to DSD/DPD	Classification according to CLP	Note
4,4'-methylenediphenyl diisocyanate	101-68-8 202-966-0	10%<C<25%	Carc. Cat. 3; R40 Xn; R20 - 48/20 Xi; R36/37/38 R42/43	Carc. 2; H351 Acute Tox. 3; H331 STOT SE 2; H371 Eye Irrit. 2; H319 STOT SE 3; H335 Skin Irrit. 2; H315 Resp. Sens. 1; H334 Skin Sens. 1; H317	(1)(2)

(1) For R-phrases and H-statements in full: see heading 16
 (2) Substance with a Community workplace exposure limit

4. First aid measures

4.1 After inhalation:

Remove the victim into fresh air
 Respiratory problems: consult a doctor/medical service

4.2 Skin contact:

Wash immediately with lots of water
 Do not apply (chemical) neutralizing agents
 Take victim to a doctor if irritation persists

4.3 Eye contact:

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Product number: 38899

Publication date: 2003-01-30

Date of revision: 2010-11-17

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Rinse immediately with plenty of water
Do not apply neutralizing agents
Take victim to an ophthalmologist if irritation persists

4.4 After ingestion:

Rinse mouth with water
Immediately after ingestion: give lots of water to drink
Do not induce vomiting
Consult a doctor/medical service if you feel unwell

5. Fire-fighting measures

5.1 Suitable extinguishing media:

Polyvalent foam
BC powder
Carbon dioxide
Water spray

5.2 Unsuitable extinguishing media:

No unsuitable extinguishing media known

5.3 Special exposure hazards:

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide)
Reacts slowly with water (moisture): release of (carbon dioxide)

5.4 Instructions:

Dilute toxic gases with water spray

5.5 Special protective equipment for fire-fighters:

Gloves
Face-shield
Protective clothing
Heat/fire exposure: compressed air/oxygen apparatus

6. Accidental release measures

6.1 Personal precautions:

See heading 8.2

6.2 Environmental precautions:

Dam up the solid spill
Use appropriate containment to avoid environmental contamination
Prevent spreading in sewers
See heading 13

6.3 Methods for cleaning up:

Scoop solid spill into closing containers
Containers must not be sealed hermetically
Carefully collect the spill/leftovers
Clean (treat) contaminated surfaces with acetone
Carefully collect the spill/leftovers
Wash clothing and equipment after handling

7. Handling and storage

7.1 Handling:

Keep away from naked flames/heat
Observe very strict hygiene - avoid contact
Keep container tightly closed
Do not discharge the waste into the drain

7.2 Storage:

Safe storage requirements:

Store in a dry area
Keep container in a well-ventilated place

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Keep only in the original container
Meet the legal requirements
Max. storage time: 1 year(s)

Keep away from:

(strong) acids
(strong) bases
alcohols
amines
water/moisture

Suitable packaging material:

polyethylene

7.3 Specific use(s):

See information supplied by the manufacturer for the identified use(s)

8. Exposure controls/Personal protection

8.1 Exposure limit values:

8.1.1 Occupational exposure:

If limit values are applicable and available these will be listed below.

Indicative exposure limit (the Netherlands)

Difenylmethaan-4,4'-diisocyanaat	Short time value	0.02 ppm 0.21 mg/m ³
	Time-weighted average exposure limit	0.005 ppm 0.05 mg/m ³

Limit Value (Belgium)

Difenylmethaan-4,4'-di-isocyanaat(MDI)	Short time value	- ppm - mg/m ³
	Time-weighted average exposure limit	0.005 ppm 0.052 mg/m ³

TLV (USA)

Methylene bisphenyl isocyanate (MDI)	Short time value	- ppm
	Time-weighted average exposure limit	0.005 ppm

TRGS 900 (Germany)

4,4'-Methylen- diphenyldiisocyanat	Time-weighted average exposure limit	0.05 mg/m ³
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Limit Value (France)

4,4'-Diisocyanate de diphenylméthane	Short time value	0.02(5 min) ppm 0.2(5 min) mg/m ³
	Time-weighted average exposure limit	0.01 ppm 0.1 mg/m ³

Limit Value (UK)

Isocyanates, all (as -NCO)	Short time value	-(-NCO) ppm 0.07(-NCO) mg/m ³
	Time-weighted average exposure limit	-(-NCO) ppm 0.02(-NCO) mg/m ³

8.1.2 Sampling methods:

Product name	Test	Number	Sampling method	Remarks
4,4-Methylene Bisphenyl Isocyanate (MDI) (Isocyanates)	NIOSH	5521	wet chemical	
Isocyanates	NIOSH	5521	wet chemical	
Isocyanates	NIOSH	5522	wet chemical	
Methylene Bisphenyl Isocyanate	OSHA	47		
Papi	OSHA	CSI		

8.2 Exposure controls:

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8.2.1 Occupational exposure controls:

Measure the concentration in the air regularly

Carry operations in the open/under local exhaust/ventilation or with respiratory protection

Personal protective equipment:

a) Respiratory protection:

Insufficient ventilation: wear respiratory protection

b) Hand protection:

Gloves

- polyethylene

c) Eye protection:

Safety glasses

d) Skin protection:

Protective clothing

8.2.2 Environmental exposure controls:

See headings 6.2, 6.3 and 13

9. Physical and chemical properties

9.1 General information:

Physical form	Paste
Odour	Characteristic odour
Colour	Colourless

9.2 Important health, safety and environmental information:

Flashpoint	> 165 °C
Relative density	1.1
Relative vapour density	> 2

9.3 Other information:

10. Stability and reactivity

10.1 Conditions to avoid:

Possible fire hazard

heat sources

Stability

Stable under normal conditions

10.2 Materials to avoid:

(strong) acids

(strong) bases

alcohols

amines

water/moisture

10.3 Hazardous decomposition products:

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide)

Reacts slowly with water (moisture): release of (carbon dioxide)

11. Toxicological information

11.1 Acute toxicity:

4,4'-methylenediphenyl diisocyanate

LD50 oral (rat)	9200 mg/kg
LD50 dermal (rabbit)	> 10000 mg/kg

11.2 Chronic toxicity:

No certainty about human carcinogenic properties

Not listed in mutagenicity class (EC,MAK)

Contains a substance of group C (MAK-Schwangerschaftsgruppe)

4,4'-methylenediphenyl diisocyanate

EC carc cat	3
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IARC - classification	3
MAK - Krebszeugend Kategorie	4
MAK - Schwangerschaft Gruppe	C
CLP carc cat	category 2

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EC carc cat	3
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11.3 Acute effects/symptoms:

Inhalation:

Dry/sore throat
Coughing
Runny nose
Irritation of the respiratory tract
Irritation of the nasal mucous membranes

Skin contact:

Tingling/irritation of the skin

Eye contact:

Irritation of the eye tissue

Ingestion:

Irritation of the gastric/intestinal mucosa

11.4 Chronic effects:

Prolonged exposure: danger of damage to health through inhalation
No cumulative effect
ON CONTINUOUS/REPEATED EXPOSURE/CONTACT:
Itching
Skin rash/inflammation
Feeling of weakness
Coughing
Possible inflammation of the respiratory tract
Respiratory difficulties

12. Ecological information

12.1 Ecotoxicity:

4,4'-methylenediphenyl diisocyanate

LC50 fishes

species	value	duration (h)	remarks
BRACHYDANIO RERIO	>=500 mg/l	24 h	

EC50 Daphnia

species	value	duration (h)	remarks
DAPHNIA MAGNA	>100 mg/l		

12.2 Mobility:

Volatile organic compounds (VOC) 0 %
Solubility in/reaction with water Literature reports: insoluble in water

12.3 Persistence and degradability:

Biodegradability in water: no data available

12.4 Bioaccumulative potential:

No bioaccumulation data available

12.5 Results of PBT assessment:

Not applicable, based on available data

12.6 Other adverse effects:

Not dangerous for the ozone layer (1999/45/EC)

13. Disposal considerations

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13.1 Provisions relating to waste:

Waste material code (Directive 2008/98/EC, decision 2001/118/EC)

08 04 09* : waste adhesives and sealants containing organic solvents or other dangerous substances

Depending on branch of industry and production process, also other EURAL codes may be applicable

Hazardous waste according to Directive 2008/98/EC

13.2 Disposal methods:

Remove to an authorized incinerator equipped with an after burner and a flue gas scrubber with energy recovery

Remove waste in accordance with local and/or national regulations

Do not discharge into drains or the environment

13.3 Packaging/Container:

Waste material code packaging (Directive 2008/98/EC)

15 01 10* : packaging containing residues of or contaminated by dangerous substances

14. Transport information

ADR

Transport	Not subject
UN number	-
Class	
Packing group	
Hazard identification number	
Classification code	
Labels	
Environmentally hazardous substance mark	

RID

Transport	Not subject
UN number	-
Class	
Packing group	
Classification code	
Labels	
Environmentally hazardous substance mark	

ADNR

Transport	Not subject
UN number	-
Class	
Packing group	
Classification code	
Labels	
Environmentally hazardous substance mark	

IMO

Transport	Not subject
UN number	-
Class	
Packing group	
Labels	
Marine pollutant	
Environmentally hazardous substance mark	

ICAO

Transport	Not subject
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UN number	-
Class	
Packing group	
Labels	
Environmentally hazardous substance mark	

15. Regulatory information

15.1 EU Legislation:

DSD/DPD

Classification according to directives 67/548/EEC, 1999/45/EC and 2006/8/EC



Harmful

Contains: 4,4'-methylenediphenyl diisocyanate

R-phrases

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
48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation

S-phrases

(02)	(Keep out of the reach of children)
23	Do not breathe vapour
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)
(63)	(In case of accident by inhalation: remove casualty to fresh air and keep at rest)

Additional recommendations

	Contains isocyanates. See information supplied by the manufacturer.
	— Persons already sensitised to diisocyanates may develop allergic reactions when using this product.
	— Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.
	— This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

15.2 National provisions:

The Netherlands

Waterbezwaarlijkheid (for NL)

Waste identification other lists of waste materials

8

LWCA (the Netherlands): KGA category 03

Germany

TA-Luft

WGK

1

4,4'-methylenediphenyl diisocyanate: TA-Luft Klasse 5.2.5/1

Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)

15.3 Specific community rules:

Enumerated in Annex XVII of Regulation (EC) No. 1907/2006: Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

Legislation

EC/552/2009

Reference legislation

See column 1: 56.

16. Other information

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The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question.

Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult your BIG licence agreement for details.

(*) = INTERNAL CLASSIFICATION (NFPA)

PBT-substances = persistent, bioaccumulative and toxic substances

DSD Dangerous Substance Directive

DPD Dangerous Preparation Directive

CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

Full text of any R-phrases referred to under headings 2 and 3:

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 and skin contact
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation

Full text of any H-statements referred to under headings 2 and 3:

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H371	May cause damage to organs if inhaled

Full text of any classes referred to under headings 2 and 3:

Acute Tox.	Acute toxicity
Carc.	Carcinogenicity
Eye Irrit.	Eye irritation
Resp. Sens.	Respiratory sensitization
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitization
STOT SE	Specific target organ toxicity - single exposure