

SAFETY DATA SHEET

Based on Directive 2001/58/EC of the Commission of the European Communities

Timber Adhesive Pro 45P

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

1.1 Identification of the substance or preparation:

- Not applicable

1.2 Use of the substance or the preparation:

- Adhesive

1.3 Company/undertaking identification:

SOUDAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
Tel. : +32 14 42 42 31
Fax : +32 14 44 39 71

1.4 Telephone number for emergency:

+32 14 58 45 45
Brandweerinformatiecentrum voor gevaarlijke stoffen (B.I.G.)
Technische Schoolstraat 43 A, B-2440 Geel

2. Composition/information on ingredients

Hazardous ingredients	CAS No. EINECS No.	Conc. in %	Hazard symbol	Risks (R-phrases)
2,2'-dimorpholinyl-diethyl ether	6425-39-4 229-194-7	< 20	Xi	36/38 (1)
xylene, mixture of isomers	1330-20-7 215-535-7	< 12.5	Xn	10-20/21-38 (1)
polymethylenepolyphenylisocyanate	9016-87-9 -	> 25	Xn	20-36/37/38-42/43 (1)

(1) For R-phrases in full: see heading 16

3. Hazards identification

- Flammable
- Harmful by inhalation
- Irritating to eyes, respiratory system and skin
- May cause sensitization by inhalation and skin contact

Printing date : 02-2003 1/10
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MSDS established : 03-04-2002 Revision date : 12-01-2003
Reference number : BIG\33233GB Revision number : 004
Reason for revision : Directive 2001/58/EC

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4. First aid measures

- 4.1 **Eye contact:**
 - Rinse immediately with plenty of water
 - Seek medical advice
- 4.2 **Skin contact:**
 - Rinse immediately with plenty of water
 - If irritation persists: seek medical advice
- 4.3 **After inhalation:**
 - Remove the victim into fresh air
 - Seek medical advice
- 4.4 **After ingestion:**
 - Never give water to an unconscious person
 - Do not induce vomiting
 - Seek medical advice

5. Fire-fighting measures

- 5.1 **Suitable extinguishing media:**
 - Polyvalent foam
 - BC powder
 - Carbon dioxide
- 5.2 **Unsuitable extinguishing media:**
 - None
- 5.3 **Special exposure hazards:**
 - Heat/fire exposure: release of toxic and corrosive gases/vapours: nitrous vapours, carbon monoxide and carbon dioxide
 - Gas/vapour flammable with air within explosion limits
- 5.4 **Instructions:**
 - Dilute toxic gases with water spray
- 5.5 **Special protective equipment for firefighters:**
 - Heat/fire exposure: compressed air/oxygen apparatus

6. Accidental release measures

- 6.1 **Personal protection/precautions:**
 - See headings 8.1/8.3/10.3
- 6.2 **Environmental precautions:**
 - Use appropriate containment to avoid environmental contamination
- 6.3 **Methods of cleaning up:**
 - Take up liquid spill into absorbent material e.g. sand/earth
 - Take collected spill to competent authority
 - Wash clothing and equipment after handling

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7. Handling and storage

7.1 Handling:

- Observe very strict hygiene - avoid contact
- In case of insufficient ventilation: keep naked flames/sparks away
- Do not discharge the waste into the drain
- Remove contaminated clothing immediately
- Clean contaminated clothing

7.2 Storage:

- Keep container tightly closed
- Keep away from: heat sources, ignition sources

Storage temperature : Room temperature
Quantity limit : N.D. **kg**
Storage life : 365 **days**
Materials for packaging :
- suitable : plastic

7.3 Specific uses:

- See information supplied by the manufacturer

8. Exposure controls/Personal protection

8.1 Exposure limit values:

XYLENE, MIXTURE OF ISOMERS:

TLV-TWA	: -	mg/m ³	100	ppm
TLV-STEL	: -	mg/m ³	150	ppm
TLV-Ceiling	: -	mg/m ³	-	ppm
OES-LTEL	: 441	mg/m ³	100	ppm
OES-STEL	: 662	mg/m ³	150	ppm
MAK	: 440	mg/m ³	100	ppm
TRK	: -	mg/m ³	-	ppm
MAC-TGG 8 h	: 210	mg/m ³		
MAC-TGG 15 min.	: -	mg/m ³		
MAC-Ceiling	: -	mg/m ³		
VME-8 h	: 435	mg/m ³	100	ppm
VLE-15 min.	: 650	mg/m ³	150	ppm
GWBB-8 h	: 440	mg/m ³	100	ppm
GWK-15 min.	: 660	mg/m ³	150	ppm
Momentary value	: -	mg/m ³	-	ppm
EC	: 221	mg/m ³	50	ppm
EC-STEL	: 442	mg/m ³	100	ppm

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POLYMETHYLENEPOLYPHENYLISOCYANATE:

TLV-TWA	: -	mg/m ³	-	ppm
TLV-STEL	: -	mg/m ³	-	ppm
TLV-Ceiling	: -	mg/m ³	-	ppm
MEL-LTEL	: 0.02 (-NCO)	mg/m ³	-	ppm
MEL-STEL	: 0.07 (-NCO)	mg/m ³	-	ppm
MAK	: -	mg/m ³	-	ppm
TRK	: -	mg/m ³	-	ppm
MAC-TGG 8 h	: -	mg/m ³		
MAC-TGG 15 min.	: -	mg/m ³		
MAC-Ceiling	: -	mg/m ³		
VME-8 h	: -	mg/m ³	-	ppm
VLE-15 min.	: -	mg/m ³	-	ppm
GWBB-8 h	: -	mg/m ³	-	ppm
GWK-15 min.	: -	mg/m ³	-	ppm
Momentary value	: -	mg/m ³	-	ppm
EC	: -	mg/m ³	-	ppm
EC-STEL	: -	mg/m ³	-	ppm

8.2 Exposure controls:

8.2.1 Occupational exposure controls:

- Use only in well ventilated area

8.2.2 Environmental exposure controls: see heading 13

8.3 Personal protection:

8.3.1 respiratory protection:

- In case of insufficient ventilation: respiratory protection with filtertype A

8.3.2 hand protection:

- Gloves

8.3.3 eye protection:

- Face shield

8.3.4 skin protection:

- Protective clothing

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9. Physical and chemical properties

9.1 General information:

Appearance (at 20°C)	: Liquid
Odour	: Solvent
Colour	: Brown

9.2 Important health, safety and environmental information:

pH value	: N.D.	
Boiling point/boiling range	: N.D.	°C
Flashpoint	: 35	°C
Explosion limits	: 1.0 - 7.0	Vol%
Vapour pressure (at 20°C)	: 8	hPa
Vapour pressure (at 50°C)	: N.D.	hPa
Relative density (at 20°C)	: 1.1	
Water solubility	: Insoluble	
Soluble in	: Organic solvents	
Relative vapour density	: N.D.	
Viscosity (at 20°C)	: 6	Pa.s
Partition coefficient n-octanol/water	: N.D.	
Evaporation rate		
ratio to butyl acetate	: N.D.	
t.o.v. diethyl ether	: N.D.	

9.3 Other information:

Melting point/melting range	: N.D.	°C
Auto-ignition point	: N.D.	°C
Saturation concentration	: N.D.	g/m ³

10. Stability and reactivity

10.1 Conditions to avoid/reactivity:

- Stable under normal conditions

10.2 Materials to avoid:

- Heat sources, ignition sources

10.3 Hazardous decomposition products:

- Heat/fire exposure: release of toxic and corrosive gases/vapours: nitrous vapours, carbon monoxide and carbon dioxide

11. Toxicological information

11.1 Acute toxicity:

XYLENE, MIXTURE OF ISOMERS:

LD50 oral rat	: > 4300	mg/kg
LD50 dermal rabbit	: > 2000	mg/kg
LD50 dermal rabbit	: > 1700	mg/kg
LC50 inhalation rat	: 22	mg/l/4 h
LC50 inhalation rat	: 5000	ppm/4 h

POLYMETHYLENEDIPHENYLISOCYANATE:

LD50 oral rat	: > 10000	mg/kg
LD50 dermal rabbit	: N.D.	mg/kg
LD50 dermal rabbit	: > 5000	mg/kg
LC50 inhalation rat	: N.D.	mg/l/4 h
LC50 inhalation rat	: N.D.	ppm/4 h

11.2 Chronic toxicity:

XYLENE, MIXTURE OF ISOMERS:

EC carc. cat. : not listed
EC muta. cat. : not listed
EC repr. cat. : not listed

Carcinogenicity (TLV) : A4
Carcinogenicity (MAC) : not listed
Carcinogenicity (VME) : not listed
Carcinogenicity (GWBB) : not listed

Carcinogenicity (MAK) : not listed
Mutagenicity (MAK) : not listed
Teratogenicity (MAK) : Group D

IARC classification : 3

POLYMETHYLENEPOLYPHENYLISOCYANATE:

EC carc. cat. : not listed
EC muta. cat. : not listed
EC repr. cat. : not listed

Carcinogenicity (TLV) : not listed
Carcinogenicity (MAC) : not listed
Carcinogenicity (VME) : not listed
Carcinogenicity (GWBB) : not listed

Carcinogenicity (MAK) : category 3B
Mutagenicity (MAK) : not listed
Teratogenicity (MAK) : Group -

IARC classification : 3

11.3 Routes of exposure: ingestion, inhalation, eye and skin

11.4 Acute effects/symptoms:

AFTER INHALATION:

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

EXPOSURE TO HIGH CONCENTRATIONS:

- Risk of pneumonia
- Respiratory difficulties

FOLLOWING SYMPTOMS MAY APPEAR LATER:

- Risk of lung oedema

AFTER INGESTION:

- Irritation of the gastric/intestinal mucosa

AFTER SKIN CONTACT:

- Tingling/irritation of the skin

AFTER EYE CONTACT:

- Irritation of the eye tissue

11.5 Chronic effects:

- May cause sensitization by skin contact
- May cause sensitization by inhalation
- Contains substance with uncertain carcinogenic properties (xylene) (polymethylenepolyphenylisocyanate)

ON CONTINUOUS EXPOSURE/CONTACT:

- Itching
- Skin rash/inflammation
- May stain the skin
- Feeling of weakness
- Coughing
- Inflammation of the respiratory tract
- Respiratory difficulties

12. Ecological information

12.1 Ecotoxicity:

XYLENE, MIXTURE OF ISOMERS:

- LC50 (96 h) : 3.77 mg/l (SALMO GAIARDNERI/ONCORHYNCHUS MYKISS)
- EC50 (48 h) : 7.4 mg/l (DAPHNIA MAGNA)
- EC50 (72 h) : 10 mg/l (SKELETONEMA COSTATUM)

12.2 Mobility:

- Volatile organic compounds (VOC): 3 %
- Insoluble in water
- For other physicochemical properties see section 9

12.3 Persistence and degradability:

- biodegradation BOD₅ : N.D. % ThOD
- water : No data available
- soil : T ½ N.D. days

12.4 Bioaccumulative potential:

- log P_{ow} : N.D.
- BCF : N.D.

12.5 Other adverse effects:

- WGK : 1 (classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 17 May 1999)
- Effect on the ozone layer : Not dangerous for the ozone layer (1999/45/EC)
- Greenhouse effect : No data available
- Effect on waste water purification : No data available

13. Disposal considerations

13.1 Provisions relating to waste:

- Waste material code (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 08 04 09 (waste adhesives and sealants containing organic solvents or other dangerous substances)
- Waste material code (Flanders): 034; 516
- Hazardous waste (91/689/EEC)

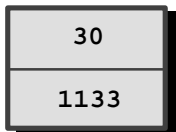
13.2 Disposal methods:

- Incinerate under surveillance
- Do not discharge into surface water

13.3 Packaging:

- Waste material code packaging (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 15 01 10 (packaging containing residues of or contaminated by dangerous substances)

14. Transport information



- 14.1 Classification of the substance in compliance with UN Recommendations
- | | | |
|----------------------|---|---------------------------------|
| UN number | : | 1133 |
| CLASS | : | 3 |
| SUB RISKS | : | - |
| PACKING | : | III |
| PROPER SHIPPING NAME | : | UN 1133, Adhesives, non viscous |
- 14.2 ADR (transport by road)
- | | | |
|-----------------------|---|-----|
| CLASS | : | 3 |
| PACKING | : | III |
| DANGER LABEL TANKS | : | 3 |
| DANGER LABEL PACKAGES | : | 3 |
- 14.3 RID (transport by rail)
- | | | |
|-----------------------|---|-----|
| CLASS | : | 3 |
| PACKING | : | III |
| DANGER LABEL TANKS | : | 3 |
| DANGER LABEL PACKAGES | : | 3 |
- 14.4 ADNR (transport by inland waterways)
- | | | |
|-----------------------|---|-----|
| CLASS | : | 3 |
| PACKING | : | III |
| DANGER LABEL TANKS | : | 3 |
| DANGER LABEL PACKAGES | : | 3 |
- 14.5 IMDG (maritime transport)
- | | | |
|------------------|---|------|
| CLASS | : | 3 |
| SUB RISKS | : | - |
| PACKING | : | III |
| MFAG | : | - |
| EMS | : | 3-05 |
| MARINE POLLUTANT | : | - |
- 14.6 ICAO (air transport)
- | | | |
|---|---|-----|
| CLASS | : | 3 |
| SUB RISKS | : | - |
| PACKING | : | III |
| PACKING INSTRUCTIONS PASSENGER AIRCRAFT | : | |
| PACKING INSTRUCTIONS CARGO AIRCRAFT | : | |
- 14.7 Special precautions in connection with transport : None
- 14.8 Limited quantities (LQ) :

When substances and their packaging meet the conditions established by ADR/RID/ADNR in chapter 3.4, **only** the following prescriptions shall be complied with:

each package shall display a diamond-shaped figure with the following inscription:

- 'UN 1133'

or, in the case of different goods with different identification numbers within a single package:

- the letters 'LQ'

15. Regulatory information

Labelling according to EC-Directives 67/548/EEC en 1999/45/EC
(** : see heading 16)



Harmful

Contains : polymethylenepolyphenylisocyanate
R10 : Flammable
R20 : Harmful by inhalation
R36/37/38 : Irritating to eyes, respiratory system and skin
R42/43 : May cause sensitization by inhalation and skin contact

S(02) : (Keep out of reach of children)
S23 : Do not breathe vapour
S36/37 : Wear suitable protective clothing and gloves
S45 : In case of accident or if you feel unwell, seek medical advice
(show the label where possible)
S(63) : (In case of accident by inhalation: remove casualty to fresh
air and keep at rest)
Contains isocyanates. See information supplied by the
manufacturer

16. Other information

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

N.A. = NOT APPLICABLE
N.D. = NOT DETERMINED
***** = INTERNAL CLASSIFICATION

(**) Labelling:

The labelling of the substance described in this MSDS complies with the provisions of Directive 1999/45/EC of 31 May 1999, published in the Official Journal of the European Communities L 200 of 30/07/1999. This Directive replaces Directive 88/379/EEC of 7 June 1988, published in the Official Journal of the European Communities L 187 of 16/07/1988.

Member States shall apply the laws, regulations and administrative provisions referred to in article 22 of this Directive:

(a) to preparations not within the scope of Directive 91/414/EEC or Directive 98/8/EC as from 30 July 2002; and
(b) to preparations within the scope of Directive 91/414/EEC or Directive 98/8/EC as from 30 July 2004.

Full text of any R-phrases referred to under heading 2:

R10 : Flammable
R20 : Harmful by inhalation
R20/21 : Harmful by inhalation and in contact with skin
R36/37/38 : Irritating to eyes, respiratory system and skin
R36/38 : Irritating to eyes and skin
R38 : Irritant to the skin
R42/43 : May cause sensitization by inhalation and skin contact

Exposure limits:

TLV : Threshold Limit Value - ACGIH US 2000
OES : Occupational Exposure Standards - United Kingdom 1999
MEL : Maximum Exposure Limits - United Kingdom 1999
MAK : Maximale Arbeitsplatzkonzentrationen - Germany 2001
TRK : Technische Richtkonzentrationen - Germany 2001
MAC : Maximale aanvaarde concentratie - the Netherlands 2002
VME : Valeurs limites de Moyenne d'Exposition - France 1999
VLE : Valeurs limites d'Exposition à court terme - France 1999
GWBB : Grenswaarde beroepsmatige blootstelling - Belgium 1998
GWK : Grenswaarde kortstondige blootstelling - Belgium 1998
EC : Indicative occupational exposure limit values - directive 2000/39/EC

I : Inhalable fraction = **T** : Total dust = **E** : Einatembare Aerosolanteil
R : Respirable fraction = **A** : Alveolengängiger Aerosolanteil/Alveolar dust
C : Ceiling limit

a:	aerosol	r:	rook/Rauch	(fume)
d:	damp (vapour)	st:	stof/Staub	(dust)
du:	dust	ve:	vezel	(fibre)
fa:	Faser (fibre)	va:	vapour	
fi:	fibre	om:	oil mist	
fu:	fume	on:	olienevel/Ölnebel	(oil mist)
p:	poussière (dust)	part:	particles	

Chronic toxicity:

K : List of the carcinogenic substances and processes - The Netherlands 2002