SAFETY DATA SHEET

Based upon Regulation (EC) No. 1907/2006, as amended by Regulation (EC) No. 453/2010

No Nonsense Expanding Foam hand held

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Product name : No Nonsense Expanding Foam hand held
Registration number REACH : Not applicable (mixture)
Product type REACH : Mixture (Organic)

1.2 Relevant identified uses of the substance or mixture and uses advised against:

1.2.1 Relevant identified uses

polyurethane

1.2.2 Uses advised against

No uses advised against known

1.3 Details of the supplier of the safety data sheet:

Supplier of the SDS

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

Producer of the product

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

1.4 Emergency telephone number:

24h/24h: +32 14 58 45 45 (BIG) (NL, EN, FR, DE)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation EC No 1272/2008

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statement code(s)
Flam. Aerosol	category 1	H222: Extremely flammable aerosol.
Carc.	category 2	H351: Suspected of causing cancer.
Lact.		H362: May cause harm to breast-fed children.
Acute Tox.	category 4	H332: Harmful if inhaled.
STOT RE	category 2	H373: May cause damage to organs through prolonged or repeated exposure if inhaled.
Eye Irrit.	category 2	H319: Causes serious eye irritation.
STOT SE	category 3	H335: May cause respiratory irritation.
Skin Irrit.	category 2	H315: Causes skin irritation.
Resp. Sens.	category 1	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens.	category 1	H317: May cause an allergic skin reaction.

2.1.2 Classification according to Directive 67/548/EEC-1999/45/EC

Classified as dangerous in accordance with the criteria of Directives 67/548/EEC and 1999/45/EC

F+; R12 - Extremely flammable.

Carc. Cat. 3; R40 - Limited evidence of a carcinogenic effect

Xn; R20 - 48/20 - Harmful by inhalation. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Xi; R36/37/38 - Irritating to eyes, respiratory system and skin.
R42/43 - May cause sensitisation by inhalation and skin contact.
R64 - May cause harm to breastfed babies.

2.2 Label elements:

Labelling according to Regulation EC No 1272/2008 (CLP)

Hazard pictograms

Contains polymethylene polyphenyl isocyanate, 4,4'-methylenediphenyl diisocyanate.

Signal word Danger

H-statements

H222	Extremely flammable aerosol.
H351	Suspected of causing cancer.
H362	May cause harm to breast-fed children.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H315	Causes skin irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.

P-statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P251	Pressurized container: Do not pierce or burn, even after use.
P280	Wear protective gloves and eye protection/face protection.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P309 + P311	IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P410 + P412	Protect from sunlight. Do no expose to temperatures exceeding 50 °C/ 122°F.
P501	Dispose of contents/container to manufacturer/competent authority.

Supplemental information

- 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.

Labelling according to Directive 67/548/EEC-1999/45/EC (DSD/DPD)

Labels

Extremely flammable

Harmful

Contains: polymethylene polyphenyl isocyanate, 4,4'-methylenediphenyl diisocyanate.

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
48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation
64	May cause harm to breastfed babies

S-phrases

23	Do not breathe spray
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
(63)	(In case of accident by inhalation: remove casualty to fresh air and keep at rest)

Additional recommendations

Keep away from sources of ignition - No smoking.

Keep out of the reach of children.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C.

Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material.

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.

2.3 Other hazards:

DSD/DPD

Due to insufficient data no statement can be made whether the component(s) fulfil(s) the criteria of PBT and vPvB according to Annex XIII of Regulation (EC) No 1907/2006

May be ignited by sparks

Gas/vapour spreads at floor level: ignition hazard

Aerosol may explode under the effect of heat

CLP

Due to insufficient data no statement can be made whether the component(s) fulfil(s) the criteria of PBT and vPvB according to Annex XIII of Regulation (EC) No 1907/2006

May be ignited by sparks

Gas/vapour spreads at floor level: ignition hazard

Aerosol may explode under the effect of heat

SECTION 3: Composition/information on ingredients

3.1 Substances:

Not applicable

3.2 Mixtures:

Name (REACH Registration No)	CAS No EC No	Conc. (C)	Classification according to DSD/DPD	Classification according to CLP	Note	Remark
polymethylene polyphenyl isocyanate (-)	9016-87-9	C>25 %	Carc. Cat. 3; R40 Xn; R20 - 48/20 Xi; R36/37/38 R42/43	Carc. 2; H351 Acute Tox. 4; H332 STOT RE 2; H373 Eye Irrit. 2; H319 STOT SE 3; H335 Skin Irrit. 2; H315 Resp. Sens. 1; H334 Skin Sens. 1; H317	(1)(2)(10)	Constituent
4,4'-methylenediphenyl diisocyanate (01-2119457014-47)	101-68-8 202-966-0	10%<C<25%	R42/43 Xi; R36/37/38 Xn; R20 - 48/20 Carc. Cat. 3; R40	Carc. 2; H351 Acute Tox. 4; H332 STOT RE 2; H373 Eye Irrit. 2; H319 STOT SE 3; H335 Skin Irrit. 2; H315 Resp. Sens. 1; H334 Skin Sens. 1; H317	(1)(2)(8)(10)	Constituent
alkanes, C14-17, chloro; (01-2119519269-33)	85535-85-9 287-477-0	1%<C<20%	R64 R66 N; R50-53	Lact. ; H362 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	(1)(10)	Constituent
dimethyl ether (01-2119472128-37)	115-10-6 204-065-8	1%<C<10%	F+; R12	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant
propane (-)	74-98-6 200-827-9	1%<C<10%	F+; R12	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant
isobutane (-)	75-28-5 200-857-2	1%<C<20%	F+; R12	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant
(1,3-butadiene, conc<0.1%) (-)						

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

(2) Substance with a Community workplace exposure limit

(8) Specific concentration limits, see heading 16

(10) Enumerated in Annex XVII on restriction (Regulation (EC) No. 1907/2006)

SECTION 4: First aid measures

4.1 Description of first aid measures:

General:

GENERAL. Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

After inhalation:

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

After skin contact:

Wash immediately with lots of water. Take victim to a doctor if irritation persists.

After eye contact:

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

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

4.2 Most important symptoms and effects, both acute and delayed:

4.2.1 Acute symptoms

After inhalation:

Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Runny nose. FOLLOWING SYMPTOMS MAY APPEAR LATER: Possible inflammation of the respiratory tract. Risk of lung oedema. Respiratory difficulties.

After skin contact:

Tingling/irritation of the skin.

After eye contact:

Irritation of the eye tissue. Lacrimation.

After ingestion:

Not applicable.

4.2.2 Delayed symptoms

No effects known.

4.3 Indication of any immediate medical attention and special treatment needed:

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

5.1.1 Suitable extinguishing media:

Quantities of water. Polyvalent foam. BC powder. Carbon dioxide.

5.1.2 Unsuitable extinguishing media:

No unsuitable extinguishing media known.

5.2 Special hazards arising from the substance or mixture:

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, hydrogen chloride, carbon monoxide - carbon dioxide). May polymerize on exposure to temperature rise. On heating: release of toxic/combustible gases/vapours (hydrogen cyanide).

5.3 Advice for firefighters:

5.3.1 Instructions:

If exposed to fire cool the closed containers by spraying with water. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistant risk of physical explosion. Dilute toxic gases with water spray.

5.3.2 Special protective equipment for fire-fighters:

Heat/fire exposure: compressed air/oxygen apparatus. Gloves. Protective goggles. Head/neck protection. Protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment.

6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

6.1.2 Protective equipment for emergency responders

Gloves. Protective goggles. Head/neck protection. Protective clothing.

Suitable protective clothing

See heading 8.2

6.2 Environmental precautions:

Dam up the solid spill. Use appropriate containment to avoid environmental contamination.

6.3 Methods and material for containment and cleaning up:

Allow product to solidify and remove it by mechanical means. Take collected spill to manufacturer/competent authority. Clean (treat) contaminated surfaces with acetone. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4 Reference to other sections:

See heading 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1 Precautions for safe handling:

Use spark-/explosionproof appliances and lighting system. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Observe very strict hygiene - avoid contact. Remove contaminated clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities:

7.2.1 Safe storage requirements:

Ventilation at floor level. Store in a cool area. Keep out of direct sunlight. Store in a dry area. Fireproof storeroom. Unauthorized persons are not admitted. Meet the legal requirements. 1 year(s). < 50 °C.

7.2.2 Keep away from:

(Strong) acids, (strong) bases, heat sources, ignition sources.

7.2.3 Suitable packaging material:

Aerosol.

7.2.4 Non suitable packaging material:

No data available

7.3 Specific end use(s):

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer .

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:

8.1.1 Occupational exposure

a) Occupational exposure limit values

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

Regulatory exposure limit (The Netherlands)

Dimethylether	Short time value	1500 mg/m³	
	Short time value, calculated	783 ppm	
	Time-weighted average exposure limit 8 h	950 mg/m³	
	Time-weighted average exposure limit, calculated	496 ppm	

Indicative exposure limit (the Netherlands)

Difenylmethaan-4,4'-diisocyanaat	Short time value	0.21 mg/m³	
	Short time value, calculated	0.02 ppm	
	Time-weighted average exposure limit 8 h	0.05 mg/m³	
	Time-weighted average exposure limit, calculated	0.0048 ppm	

Indicative exposure limit EU

Dimethylether	Short time value	- ppm	
	Time-weighted average exposure limit 8 h	1000 ppm 1920 mg/m³	

Limit Value (Belgium)

4,4'-Diisocyanate de diphénylméthane (MDI)	Short time value	- ppm - mg/m³	
	Time-weighted average exposure limit 8 h	0.005 ppm 0.052 mg/m³	
Oxyde de diméthyle	Short time value	- ppm - mg/m³	
	Time-weighted average exposure limit 8 h	1000 ppm 1920 mg/m³	

Hydrocarbures aliphatiques sous forme gazeuse : (Alcanes C1-C4)	Short time value	- ppm - mg/m³	
	Time-weighted average exposure limit 8 h	1000 ppm - mg/m³	
	Short time value	- ppm - mg/m³	
	Time-weighted average exposure limit 8 h	1000 ppm - mg/m³	

TLV (USA)

Methylene bisphenyl isocyanate (MDI)	Short time value	-	
	Time-weighted average exposure limit 8 h	0.005 ppm	
Aliphatic hydrocarbon gases - alkanes(C1-C4)	Short time value	-	
	Time-weighted average exposure limit 8 h	1000 ppm	

TRGS 900 (Germany)

Isobutan	Time-weighted average exposure limit 8 h	1000 ppm 2400 mg/m³	
Dimethylether	Time-weighted average exposure limit 8 h	1000 ppm 1900 mg/m³	
4,4'-Methylen- diphenyldiisocyanat	Time-weighted average exposure limit 8 h	0.05 mg/m³	
Propan	Time-weighted average exposure limit 8 h	1000 ppm 1800 mg/m³	

Limit Value (France)

4,4'-Diisocyanate de diphénylméthane	Short time value	0.02(5 min) ppm 0.2(5 min) mg/m³	
	Time-weighted average exposure limit 8 h	0.01 ppm 0.1 mg/m³	
Oxyde de diméthyle	Short time value	- ppm - mg/m³	
	Time-weighted average exposure limit 8 h	1000 ppm 1920 mg/m³	

Limit Value (UK)

Isocyanates, all (as -NCO)	Short time value	-(-NCO) ppm 0.07(-NCO) mg/m³	
	Time-weighted average exposure limit 8 h	-(-NCO) ppm 0.02(-NCO) mg/m³	
Dimethyl ether	Short time value	500 ppm 958 mg/m³	
	Time-weighted average exposure limit 8 h	400 ppm 766 mg/m³	

b) National biological limit values

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

8.1.2 Sampling methods

Product name	Test	Number
Isocyanates	NIOSH	5522
4,4'-Methylenebis(phenylisocyanate)	NIOSH	5525
Methylene Bisphenyl Isocyanate	OSHA	47
4,4-Methylene Bisphenyl Isocyanate (MDI) (Isocyanates)	NIOSH	5521
Isocyanates	NIOSH	5521

8.1.3 Applicable limit values when using the substance or mixture as intended

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

8.1.4 DNEL/PNEC values

Workers

4,4'-methylenediphenyl diisocyanate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute systemic effects dermal	50 mg/kg bw/day	
	Acute systemic effects inhalation	0.1 mg/m³	
	Acute local effects dermal	28.7 mg/cm²	
	Acute local effects inhalation	0.1 mg/m³	
	Long-term systemic effects inhalation	0.05 mg/m³	
	Long-term local effects inhalation	0.05 mg/m³	

alkanes, C14-17, chloro;

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects dermal	47.9 mg/kg bw/day	
	Long-term systemic effects inhalation	6.7 mg/m³	

General population

4,4'-methylenediphenyl diisocyanate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute systemic effects dermal	25 mg/kg bw/day	
	Acute systemic effects inhalation	0.05 mg/m³	
	Acute -systemic effects oral	20 mg/kg bw/day	
	Acute local effects dermal	17.2 mg/cm²	
	Acute local effects inhalation	0.05 mg/m³	
	Long-term systemic effects inhalation	0.025 mg/m³	
	Long-term local effects inhalation	0.025 mg/m³	

alkanes, C14-17, chloro;

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects dermal	28.75 mg/kg bw/day	
	Long-term systemic effects inhalation	2 mg/m³	
	Long-term systemic effects oral	0.58 mg/kg bw/day	

PNEC

4,4'-methylenediphenyl diisocyanate

Compartments	Value	Remark
Fresh water	1 mg/l	
Marine water	0.1 mg/l	
aqua (intermittent releases)	10 mg/l	
STP	1 mg/l	
Soil	1 mg/kg soil dw	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2 Exposure controls:

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Use spark-/explosionproof appliances and lighting system. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly.

8.2.2 Individual protection measures, such as personal protective equipment

Observe very strict hygiene - avoid contact. Do not eat, drink or smoke during work.

a) Respiratory protection:

Wear gas mask with filter type A if conc. in air > exposure limit.

b) Hand protection:

Gloves,.

Materials	Breakthrough time	Thickness
LDPE (Low Density Poly Ethylene)	10 minutes	0.025 mm

c) Eye protection:

Protective goggles.

d) Skin protection:

Head/neck protection. Protective clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Physical form	Aerosol
Odour	Characteristic odour
Odour threshold	No data available
Colour	Variable in colour, depending on the composition
Particle size	Not applicable
Explosion limits	No data available
Flammability	Extremely flammable aerosol.
Log Kow	No data available
Dynamic viscosity	No data available
Kinematic viscosity	No data available
Melting point	No data available
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Vapour pressure	No data available
Relative vapour density	> 1
Solubility	water ; insoluble
	organic solvents ; soluble
Relative density	0.95
Decomposition temperature	No data available
Auto-ignition temperature	No data available
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

Physical hazards

Flammable aerosol

9.2 Other information:

Absolute density	950 kg/m³

SECTION 10: Stability and reactivity

10.1 Reactivity:

May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard.

10.2 Chemical stability:

Stable under normal conditions.

10.3 Possibility of hazardous reactions:

May polymerize with many compounds e.g.: (strong) bases and amines. Reacts violently with (some) acids/bases.

10.4 Conditions to avoid:

Use spark-/explosionproof appliances and lighting system. Keep away from naked flames/heat. Keep away from ignition sources/sparks.

10.5 Incompatible materials:

(strong) acids, (strong) bases.

10.6 Hazardous decomposition products:

On heating: release of toxic/combustible gases/vapours (hydrogen cyanide). On burning: release of toxic and corrosive gases/vapours (nitrous vapours, hydrogen chloride, carbon monoxide - carbon dioxide).

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

11.1.1 Test results

Acute toxicity

No Nonsense Expanding Foam hand held

No (test)data on the mixture available

polymethylene polyphenyl isocyanate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Oral	LD50		> 10000 mg/kg		Rat		Literature study
Dermal	LD50		> 5000 mg/kg		Rabbit		Literature study

4,4'-methylenediphenyl diisocyanate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Oral	LD50	Other	>2000 mg/kg bw		Rat	Male/female	Read-across
Dermal	LD50	Equivalent to OECD 402	>9400 mg/kg bw	24 h	Rabbit	Male/female	Read-across
Inhalation (aerosol)	LC50	OECD 403	>2.24 mg/l	1 h	Rat	Male/female	Experimental value

alkanes, C14-17, chloro;

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Oral	LD50	Other	>10 ml/kg bw		Rat		Experimental value
Oral	LD50	Other	>4000 ml/kg bw		Rat	Male/female	Experimental value
Dermal	LD50		>13500 mg/kg bw	24 h	Rabbit		Read-across
Dermal	LD50		>2800 mg/kg bw	24 h	Rat		Read-across
Inhalation	LC50	Other	>3.3 mg/l	1 h	Rat		Read-across
Inhalation (vapours)	LC50	Other	>48170 mg/m³	1 h	Rat		Read-across

dimethyl ether

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Inhalation	LC50		309 mg/l	4 h	Rat		Literature study
Inhalation	LC50		163991 ppm	4 h	Rat		Literature study

propane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Inhalation	LC50		513 mg/l	4 h	Rat		literature
Inhalation	LC50		280000 ppm	4 h	Rat		literature

isobutane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Inhalation	LC50		> 50 mg/l	4 h	Rat		literature

Classification of the mixture is based on the relevant ingredients of the mixture

Conclusion

Harmful if inhaled.

Low acute toxicity by the dermal route

Low acute toxicity by the oral route

Corrosion/irritation

No Nonsense Expanding Foam hand held

No (test)data on the mixture available

polymethylene polyphenyl isocyanate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination
Eye	Irritating					Literature study
Skin	Irritating					Literature study
Inhalation	Irritating					Literature study

4,4'-methylenediphenyl diisocyanate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination
Eye	Irritating				Human	Weight of evidence
Skin	Irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Read-across
Skin	Irritating				Human	Weight of evidence
Inhalation	Irritating				Human	Weight of evidence

alkanes, C14-17, chloro;

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination
Eye	Slightly irritating				Rabbit	Expert judgement
Skin	Slightly irritating	OECD 404	4 h	24; 72 hours	Rabbit	Expert judgement

Classification of the mixture is based on the relevant ingredients of the mixture

Conclusion

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

Respiratory or skin sensitisation

No Nonsense Expanding Foam hand held

No (test)data on the mixture available

polymethylene polyphenyl isocyanate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Gender	Value determination
Skin	Sensitizing						Literature study
Inhalation	Sensitizing						Literature study

4,4'-methylenediphenyl diisocyanate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Gender	Value determination
Skin	Sensitizing						Literature study
Inhalation	Sensitizing				Guinea pig	Female	Experimental value
Inhalation	Sensitizing	Other			Rat	Male	Experimental value

alkanes, C14-17, chloro;

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Gender	Value determination
Skin	Not sensitizing	Other		48 hours	Guinea pig		Experimental value

Classification of the mixture is based on the relevant ingredients of the mixture

Conclusion

May cause an allergic skin reaction.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Specific target organ toxicity

No Nonsense Expanding Foam hand held

No (test)data on the mixture available

4,4'-methylenediphenyl diisocyanate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Gender	Value determination
Inhalation (aerosol)	NOAEC	Equivalent to OECD 453	0.2 mg/m³		No effect	104 weeks (6h/day, 5 days/week)	Rat	Male/female	Read-across
Inhalation (aerosol)	LOAEC	Equivalent to OECD 453	1 mg/m³	Respiratory tract		104 weeks (6h/day, 5 days/week)	Rat	Male/female	Read-across

alkanes, C14-17, chloro;

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Gender	Value determination
Oral	NOAEL	Equivalent to OECD 408	300 ppm	Liver; kidney	No adverse systemic effects	13 week(s)	Rat	Male/female	Experimental value
Oral	NOAEL	Equivalent to OECD 408	100 mg/kg bw/day	Kidney	No adverse systemic effects	13 week(s)	Rat	Male/female	Experimental value

Classification of the mixture is based on the relevant ingredients of the mixture

Conclusion

May cause damage to organs through prolonged or repeated exposure if inhaled.

Low sub-chronic toxicity by the dermal route

Low sub-chronic toxicity by the oral route

Mutagenicity (in vitro)

No Nonsense Expanding Foam hand held

No (test)data on the mixture available

4,4'-methylenediphenyl diisocyanate

Result	Method	Test substrate	Effect	Value determination
Negative	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value

alkanes, C14-17, chloro;

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)		Experimental value

Mutagenicity (in vivo)

No Nonsense Expanding Foam hand held

No (test)data on the mixture available

4,4'-methylenediphenyl diisocyanate

Result	Method	Exposure time	Test substrate	Gender	Organ	Value determination
Negative	OECD 474	3 h	Rat	Male		Experimental value

alkanes, C14-17, chloro;

Result	Method	Exposure time	Test substrate	Gender	Organ	Value determination
Negative	Equivalent to OECD 475	5 day(s)	Rat	Male		Experimental value
Negative	Equivalent to OECD 474		Mouse	Male/female	Bone marrow	Experimental value

Carcinogenicity

No Nonsense Expanding Foam hand held

No (test)data on the mixture available

polymethylene polyphenyl isocyanate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination	Organ	Effect
Inhalation (aerosol)					Rat		Literature study		Neoplastic effects

4,4'-methylenediphenyl diisocyanate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination	Organ	Effect
Inhalation (aerosol)	NOAEC	Equivalent to OECD 453	1 mg/m³	104 weeks (6h/day, 5 days/week)	Rat	Male/female	Read-across		No effect
Inhalation (aerosol)	LOAEL	Equivalent to OECD 453	6 mg/m³	104 weeks (6h/day, 5 days/week)	Rat	Male/female	Read-across	Respiratory tract	

alkanes, C14-17, chloro;

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination	Organ	Effect
Oral	LOAEL	Equivalent to OECD 451	312 mg/kg bw/day	104 weeks (5 days/week)	Rat	Male/female	Read-across		
Oral	LOAEL	Equivalent to OECD 451	125 mg/kg bw/day	103 weeks (5 days/week)	Mouse	Male/female	Read-across		

Reproductive toxicity

No Nonsense Expanding Foam hand held

No (test)data on the mixture available

4,4'-methylenediphenyl diisocyanate

	Parameter	Method	Value	Exposure time	Species	Gender	Effect	Organ	Value determination
Developmental toxicity	NOAEL (P)	OECD 414	4 mg/m³	10 days (6h/day)	Rat	Female	maternal toxicity		Read-across
	NOAEL (F1)	OECD 414	4 mg/m³	10 days (6h/day)	Rat	Female	Teratogenicity		Read-across

alkanes, C14-17, chloro;

	Parameter	Method	Value	Exposure time	Species	Gender	Effect	Organ	Value determination
Developmental toxicity	LOAEL		3125 mg/kg bw/day		Rat	Female		Blood	Experimental value
	NOAEL (F1)	OECD 421	100 mg/kg bw/day		Rat	Male/female	No effect		Experimental value
Effects on fertility	NOAEL (P)	OECD 421	100 mg/kg bw/day	9 week(s)	Rat	Male	No effect		Experimental value
	NOAEL (P)	OECD 421	100 mg/kg bw/day	11-12 week(s)	Rat	Female	No effect		Experimental value

Classification of the mixture is based on the relevant ingredients of the mixture

Conclusion CMR

Suspected of causing cancer.

May cause harm to breast-fed children.

Not classified for reprotoxic or developmental toxicity

Not classified for mutagenic or genotoxic toxicity

Toxicity other effects

No Nonsense Expanding Foam hand held

No (test)data on the mixture available

Conclusion

No (test)data available

11.1.2 Other information

No Nonsense Expanding Foam hand held

EC carc cat	3
CLP carc cat	category 2

polymethylene polyphenyl isocyanate

EC carc cat	3
CLP carc cat	category 2
IARC - classification	3
MAK - Krebserzeugend Kategorie	4

4,4'-methylenediphenyl diisocyanate

EC carc cat	3
CLP carc cat	category 2
IARC - classification	3
MAK - Krebserzeugend Kategorie	4

alkanes, C14-17, chloro;

IARC - classification	2B
IARC - remark	vanaf C12 en 60% Cl
MAK - Krebserzeugend Kategorie	3B

SECTION 12: Ecological information

12.1 Toxicity:

No Nonsense Expanding Foam hand held

No (test)data on the mixture available

polymethylene polyphenyl isocyanate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity other aquatic organisms	LC50		>1000 mg/l	96 h				Literature study
Toxicity aquatic micro-organisms	EC50	OECD 209	>100 mg/l		Activated sludge			Literature study

4,4'-methylenediphenyl diisocyanate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	> 1000 mg/l	96 h	Danio rerio	Static system	Fresh water	Read-across
Acute toxicity invertebrates	EC50	OECD 202	129.7 mg/l	24 h	Daphnia magna	Static system	Fresh water	Read-across
Toxicity algae and other aquatic plants	EC50	OECD 201	> 1640 mg/l	72 h	Desmodesmus subspicatus	Static system	Fresh water	Read-across
Long-term toxicity aquatic invertebrates	NOEC	OECD 211	≥10 mg/l	21 day(s)	Daphnia magna	Semi-static	Fresh water	Read-across
Toxicity aquatic micro-organisms	EC50	OECD 209	>100 mg/l	3 h	Activated sludge	Static system	Fresh water	Read-across

dimethyl ether

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		>1000 mg/l	96 h	Pisces			
Acute toxicity other aquatic organisms	LC50		>4400 mg/l	48 h	Daphnia magna			

propane

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		> 1000 mg/l	96 h	Pisces			

Conclusion

No data available on ecotoxicity

12.2 Persistence and degradability:

polymethylene polyphenyl isocyanate

Biodegradation water

Method	Value	Duration	Value determination
OECD 302C: Inherent Biodegradability: Modified MITI Test (II)	< 60 %		Experimental value

4,4'-methylenediphenyl diisocyanate

Biodegradation water

Method	Value	Duration	Value determination
OECD 302C: Inherent Biodegradability: Modified MITI Test (II)	0 %	28 day(s)	Read-across

dimethyl ether

Biodegradation water

Method	Value	Duration	Value determination
OECD 301A: DOC Die-Away Test	5 %	28 day(s)	Experimental value

propane

Biodegradation water

Method	Value	Duration	Value determination
OECD 301E: Modified OECD Screening Test	70 %		Experimental value

isobutane

Biodegradation water

Method	Value	Duration	Value determination
	72.6 %	35 day(s)	
	50 %	16 - 26 day(s)	

Conclusion

Contains non readily biodegradable component(s)

12.3 Bioaccumulative potential:

polymethylene polyphenyl isocyanate

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		1		Pisces	Literature study

4,4'-methylenediphenyl diisocyanate

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	OECD 305	92 - 200	4 week(s)	Cyprinus carpio	Experimental value

Log Kow

Method	Value	Temperature	Value determination
	5.22		Estimated value

alkanes, C14-17, chloro;

Log Kow

Method	Value	Temperature	Value determination
	5.5 - >6		Literature

dimethyl ether

Log Kow

Method	Value	Temperature	Value determination
	0.10		Experimental value

propane

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		9 - 25		Pisces	

Log Kow

Method	Value	Temperature	Value determination
	2.3		Experimental value

isobutane

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		20 - 52		Pisces	

BCF other aquatic organisms

Parameter	Method	Value	Duration	Species	Value determination
BCF		20 - 52		Daphnia magna	

Log Kow

Method	Value	Temperature	Value determination
	2.76 - 2.88		Experimental value

Conclusion

Contains bioaccumulative component(s)

12.4 Mobility in soil:

No Nonsense Expanding Foam hand held

4,4'-methylenediphenyl diisocyanate

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
8.95E-7 atm m³/mol		25 °C		Estimated value

Conclusion

No (test)data on the mixture available

12.5 Results of PBT and vPvB assessment:

Due to insufficient data no statement can be made whether the component(s) fulfil(s) the criteria of PBT and vPvB according to Annex XIII of Regulation (EC) No 1907/2006.

12.6 Other adverse effects:

No Nonsense Expanding Foam hand held

Ozone-depleting potential (ODP)

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

polymethylene polyphenyl isocyanate

Ozone-depleting potential (ODP)

Not dangerous for the ozone layer (Council Regulation (EC) no 1005/2009)

4,4'-methylenediphenyl diisocyanate

Ozone-depleting potential (ODP)

Not dangerous for the ozone layer (Council Regulation (EC) no 1005/2009)

Water ecotoxicity reaction products

Reaction products are harmful to aquatic organisms

alkanes, C14-17, chloro;

Ozone-depleting potential (ODP)

Not dangerous for the ozone layer (Council Regulation (EC) no 1005/2009)

dimethyl ether

Ozone-depleting potential (ODP)

Not dangerous for the ozone layer (Council Regulation (EC) no 1005/2009)

Ground water

Ground water pollutant

propane

Ozone-depleting potential (ODP)

Not dangerous for the ozone layer (Council Regulation (EC) no 1005/2009)

isobutane

Ozone-depleting potential (ODP)

Not dangerous for the ozone layer (Council Regulation (EC) no 1005/2009)

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1 Waste treatment methods:

13.1.1 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.

13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Specific treatment. Do not discharge into drains or the environment.

13.1.3 Packaging/Container

Waste material code packaging (Directive 2008/98/EC).
15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1 UN number:

UN number	1950

14.2 UN proper shipping name:

Proper shipping name	Aerosols

14.3 Transport hazard class(es):

Hazard identification number	
Class	2
Classification code	5F

14.4 Packing group:

Packing group	
Labels	2.1

14.5 Environmental hazards:

Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Rail (RID)

14.1 UN number:

UN number	1950

14.2 UN proper shipping name:

Proper shipping name	Aerosols

14.3 Transport hazard class(es):

Hazard identification number	23
Class	2
Classification code	5F

14.4 Packing group:

Packing group	
Labels	2.1

14.5 Environmental hazards:

Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Inland waterways (ADN)

14.1 UN number:

UN number	1950

14.2 UN proper shipping name:

Proper shipping name	Aerosols

14.3 Transport hazard class(es):

Class	2
Classification code	5F

14.4 Packing group:

Packing group	
Labels	2.1

14.5 Environmental hazards:

Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Sea (IMDG)

14.1 UN number:

UN number	1950

14.2 UN proper shipping name:

Proper shipping name	Aerosols

14.3 Transport hazard class(es):

Class	2.1

14.4 Packing group:

Labels	2.1

14.5 Environmental hazards:

Marine pollutant	-
Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	
Special provisions	190
Special provisions	
Special provisions	327
Special provisions	344
Special provisions	
Limited quantities	

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

Annex II of MARPOL 73/78	Not applicable

Air (ICAO-TI/IATA-DGR)

14.1 UN number:

UN number	1950

14.2 UN proper shipping name:

Proper shipping name	Aerosols

14.3 Transport hazard class(es):

Class	2.1

14.4 Packing group:

Packing group	
Labels	2.1

14.5 Environmental hazards:

Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	A145
Special provisions	A167
Special provisions	A802
Passenger and cargo transport: limited quantities: maximum net quantity per packaging	30 kg G

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

European legislation:

Volatile organic compounds (VOC)

26.69 %

REACH Annex XVII - Restriction

Contains component(s) included 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

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
polymethylene polyphenyl isocyanate alkanes, C14-17, chloro;	Liquid substances or mixtures, which are regarded as dangerous according to the definitions in Council Directive 67/548/EEC and Directive 1999/54/EC.	1. Shall not be used in: — ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, — tricks and jokes, — games for one or more participants, or any article intended to be used as such, even with ornamental aspects, 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with R65 or H304, 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN). 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life- threatening lung damage"; b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage"; c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010. 6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public. 7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'
dimethyl ether propane isobutane	Substances meeting the criteria of flammability in Directive 67/548/ EEC and classified as flammable, highly flammable or extremely flammable regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following: — metallic glitter intended mainly for decoration, — artificial snow and frost, — "whoopee" cushions, — silly string aerosols, — imitation excrement, — horns for parties, — decorative flakes and foams, — artificial cobwebs, — stink bombs. 2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with: "For professional users only". 3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC (**). 4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated. _____ (**) OJ L 147, 9.6.1975, p. 40.
polymethylene polyphenyl isocyanate 4,4'-methylenediphenyl diisocyanate	Methylenediphenyl diisocyanate (MDI)	1. Shall not be placed on the market after 27 December 2010, as a constituent of mixtures in concentrations equal to or greater than 0,1 % by weight of MDI for supply to the general public, unless suppliers shall ensure before the placing on the market that the packaging: (a) contains protective gloves which comply with the requirements of Council Directive 89/686/EEC (*********); (b) is marked visibly, legibly and indelibly as follows, and without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures: "— 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." 2. By way of derogation, paragraph 1(a) shall not apply to hot melt adhesives. _____ (*********) OJ L 399, 30.12.1989, p. 18.

National legislation

- The Netherlands

Waterbezwaarlijkheid (for NL)	6
Waste identification other lists of waste materials	LWCA (the Netherlands): KGA category 06

- Germany

WGK	2	Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)
TA-Luft	4,4'-methylenediphenyl diisocyanate	TA-Luft Klasse 5.2.5/I

TA-Luft	alkanes, C14-17, chloro;	TA-Luft Klasse 5.2.5/I
TA-Luft	dimethyl ether	TA-Luft Klasse 5.2.5
TA-Luft	propane	TA-Luft Klasse 5.2.5
TA-Luft	isobutane	TA-Luft Klasse 5.2.5

15.2 Chemical safety assessment:

No chemical safety assessment has been conducted.

SECTION 16: Other information

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
R64 May cause harm to breastfed babies
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R66 Repeated exposure may cause skin dryness or cracking

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

H362 May cause harm to breast-fed children.
H220 Extremely flammable gas.
H351 Suspected of causing cancer.
H222 Extremely flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
H332 Harmful if inhaled.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H373 May cause damage to organs through prolonged or repeated exposure if inhaled.
H373 May cause damage to organs through prolonged or repeated exposure.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H315 Causes skin irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.

(*) = INTERNAL CLASSIFICATION BY BIG

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)

Specific concentration limits CLP

4,4'-methylenediphenyl diisocyanate	C => 5%	STOT SE 3; H335
	C => 0.1%	Resp. Sens. 1; H334
	C => 5%	Skin Irrit. 2; H315
	C => 5%	Eye Irrit. 2; H319

Specific concentration limits DSD

4,4'-methylenediphenyl diisocyanate	C >= 25 %	Xn; R 20-36/37/38-40-42/43-48/20
	10 % <= C < 25 %	Xn; R 36/37/38-40-42/43-48/20
	5 % <= C < 10 %	Xn; R 36/37/38-40-42/43
	1 % <= C < 5 %	Xn; R 40-42/43
	0,1 % <= C < 1 %	Xn; R 42

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.