

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	categ <mark>ory 1</mark>	H222: Extremely flammable aerosol.			
Carc.	categ <mark>ory 2</mark>	H351: Suspected of causing cancer.			
Lact.		H362: May cause harm to breast-fed children.			
Acute Tox.	categ <mark>ory 4</mark>	H332: Harmful if inhaled.			
STOT RE	categ <mark>ory 2</mark>	H373: May cause damage to organs through prolonged or repeated exposure if inhaled.			
Eye Irrit.	categ <mark>ory 2</mark>	H319: Causes serious eye irritation.			
STOT SE	categ <mark>ory 3</mark>	H335: May cause respiratory irritation.			
Skin Irrit.	categ <mark>ory 2</mark>	H315: Causes skin irritation.			
Resp. Sens.	categ <mark>ory 1</mark>	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.			
Skin Sens.	categ <mark>ory 1</mark>	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.

Created by: Brandweerinformatiecentrum voor Gevaarlijke Stoffen vzw (BIG)

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Publication date: 2012-03-23

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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.

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

Labels





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

R-phrases

p 4000	
20	Harm <mark>ful by inhalation</mark>
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
-phrases	
23	Do no <mark>t breathe spray</mark>
36/37	Wear suitable protective clothing and gloves

S-

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible) 45

51 Use only in well-ventilated areas

(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.

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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 sen<mark>sitised to diisocyanates may develop a</mark>llergic 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 isocy <mark>anate(-)</mark>	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 diisocya <mark>nate (01-</mark> 2119457014-47)	101-68-8 202-966-0	10% <c<2 5%</c<2 	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; (01-21 <mark>19519269-33)</mark>	85535-85-9 287-477-0	1% <c<20 %</c<20 	R64 R66 N; R50-53	Lact. ; H362 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	(1)(10)	Constituent
dimethyl ether (01-2119472128 <mark>-37)</mark>	115-10-6 204-065-8	1% <c<10 %</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 %</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 %</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

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⁽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 explosion proof 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

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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/m²	A .
	Short time value, calculat	ted	783 ppm	
	Time-weighted average e	exposure limit 8 h	950 mg/m³	U .
	Time-weighted average e	exposure limit, calculated	496 ppm	
				7

Indicative exposure limit (the Netherlands)

Difenylmethaan-4,4'-diis	ocyanaat	Short time value	0.21 mg/m³	
		<mark>Short time value, calc</mark> ulated	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	-1	ppm	
	Time-weighted averag	e exposure limit 8 h	.000 ppm	
		19	.920 mg/m³	

Limit Value (Belgium)

4,4'-Diisocyanate de dip <mark>hénylméthane</mark>		Short time value		- ppm	
(MDI)				- mg/m³	
		Time-weighted averag	e exposure limit 8 h	0.005 ppm 0.052 mg/m³	
Oxyde de diméthyle		Short time value		- ppm - mg/m³	
		Time-weighted averag	e exposure limit 8 h	1000 ppm 1920 mg/m³	

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Hydrocarbures aliphatiques sous for gazeuse : (Alcanes C1-C4)	ne 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 (MD	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 averag		1000 ppm 2400 mg/m³	
Dimethylether		Time-weighted averag	•	1000 ppm 1900 mg/m³	
4,4'-Methylen- diphenyl	diisocyanat	Time-weighted averag	e exposure limit 8 h	0.05 mg/m ³	
Propan		Time-weighted averag		1000 ppm 1800 mg/m³	

Limit Value (France)

ziiiiii raido (rraido)				
4,4'-Diisocyanate de dipl	nénylméthane	Short time value	0.02(5 min) ppm 0.2(5 min) mg/m ³	
		Time-weighted average ex	0.01 ppm 0.1 mg/m³	
Oxyde de diméthyle		Short time value	- ppm - mg/m³	
		Time-weighted average ex	1000 ppm 1920 mg/m³	

Limit Value (UK)

zimit raide (en)					
Isocyanates, all (as -NCO)	Short time value		-(-NCO) ppm 0.07(-NCO) mg/m ³	
		Time-weighted average	e exposure limit 8 h	-(-NCO) ppm 0.02(-NCO) mg/m ³	
Dimethyl ether		Short time value		500 ppm 958 mg/m³	
		Time-weighted average	e 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(phen	ylisocyanate)	NIOSH	5525
Methylene Bisphenyl Iso	ocyanate	OSHA	47
4,4-Methylene Bispheny	I 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

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4,4'-methylenediphenyl diisocyanate

Effect level (DNEL/DMEL	.)	Туре	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/cm ²	
		Acute local effects inhalation	0.1 mg/m ³	
		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)		Туре	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)		Туре	Value	Remark
DNEL		Acute systemic effects dermal	25 mg/kg bw/day	
		Acute systemic effects inhalation	0.05 mg/m ³	
		Acute -systemic effects oral	20 mg/kg bw/day	
		Acute local effects dermal	17.2 mg/cm ²	
		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/m ³	

alkanes, C14-17, chloro;

Effect level (DNEL/DMEL)	Туре	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 relea	ses)	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 E <mark>thylene)</mark>	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:

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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		<mark>No data availa</mark> ble
Relative vapour density		>1
Solubility		water; insoluble
		organic solvents ; soluble
Relative density		0.95
Decomposition tempera	ture	No data available
Auto-ignition temperatu	re	No data available
Explosive properties		No chemical group associated with explosive properties
Oxidising properties		No chemical group associated with oxidising properties
рН		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

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exposure Oral 0.950 1.0000 mg/kg Nat Interature study Dermal 0.950 5.000 mg/kg Nate Interature study Dermal 0.950 Other 5.000 mg/kg Nate Species Security of Parameter Method Value Sposure time Species Sender South of Sparameter Species Sender Sparameter Species Sender Species Sparameter Species Sparameter Species Species Species Species Dermal 0.950 Other 5.2000 mg/kg bw Spat Method Species Speci	sexposure Section Sec	Polito of	olyphenyl isocyana						
Dermal USSO	Demail USO Differ South of South Differ Diffe		Parameter	Method	Value	Exposure time	Species	Gender	Value determination
4.4-metrivenedipheryol discognante Sepois Sender Sepois Sender Sepois Sender Sender Sepois Sender Se	4.6-methylenedghend_disconanter Resposure Resp	Oral	LD50		> 10000 mg/kg		Rat		Literature stud
Route of apposure Parameter apposure Page Species Cender Alabe apposure Species Cender (Semination Darial DS) Other 2,000 mg/kg bw 4 Rat Male/female Read-across Inhalation	Route of exposure Parameter Method Value Sposure time Species Gender Catemination Cateminatio	Dermal	LD50		> 5000 mg/kg		Rabbit		Literature stud
Separate	Second S	4,4'-methylenedip	henyl diisocy <mark>anat</mark>	<u>e</u>					
Dermal DSO ADD RED HOSD ADD RED WITHOUT TO SECULATE SECULATION OF SECULA	Dermal LOSO RED 403 S2.2 a mg/l Inhabition LOSO DECD 403 S2.2 a mg/l Inhabition LOSO S2.2 a		Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Initiation (CSO DECD 403 2,22 mg/l h Rat Male/female Experimental	Inhalation (C50 DECD 403 >2.24 mg/l 1 h Sat Male/Female Experimental value (Second) Second 1 S	Oral	LD50	Other	>2000 mg/kg bw		Rat	Male/female	Read-across
Carecosol Care Cat 37, chloror; Cat 437, chloror; Cat 44, c	Commonwealth Comm	Dermal	LD50		>9400 mg/kg bw	24 h	Rabbit	Male/female	Read-across
Route of exposure time Species Gender Value Exposure time Species Gender Gender	Route of exposure meter without value Exposure time Species Gender determination or all LDSO Other > 10 m/kg bw Rat Sperimental value Exporting the Species Sperimental value of the Value of the Sperimental value of the Value of the Value of the Sperimental value of the Value of the Value of the Sperimental value of the Value		LC50	OECD 403	>2.24 mg/l	1 h	Rat	Male/female	Experimental v
Route of exposure ime Species Gender Value exposure time Species Gender determination or in the property of the exposure ime Species Gender determination or in the property of the property o	Route of exposure important programmer programmer programmers and programmers	alkanes. C14-17. c	hloro:	-1					
Doral DSO	Doral			Method	Value	Exposure time	Species	Gender	Value
Dormal D50 Other Specimental D50 Dermal D50 Other Specimental D50 Dermal D50 Specimental D50 S	Dormal LDSO Other September Septembe	exposure							determination
Dermal UDSO \$13500 mg//rg bw 24 h Rabbit Read-across Read-across	Dermal D50 13500 mg/kg bw 24 h Rabbit Read-across Dermal D50 2800 mg/kg bw 24 h Rat Read across Read across Inhabation C50 Other 3-3 mg/l 1 h Rat Read across Inhabation C50 Other 3-3 mg/l 1 h Rat Read across Inhabation C50 Other 3-3 mg/l 1 h Rat Read across Inhabation C50 Other 3-3 mg/l 2 h Rat Read across Inhabation C50 Other 309 mg/l 1 h Rat Read across Inhabation C50 Inhabation Inhabation C50 Inhabation Inhabation C50 Inhabation Inhabat	Oral	LD50	Other	>10 ml/kg bw		Rat		Experimental v
Dernal DSO 22800 mg/kg bw 24 h Rat Read-across inhalation LCSO Other >3.3 mg/l 1 h Rat Read-across Read-ac	Dermal DSO 22800 mg/lg bw 24 h 8at Read across inhalation C50 Other >3.3 mg/l 1 h Rat Read across inhalation C50 Other >48,170 mg/m² 1 h Rat Read across inhalation C50 Other >48,170 mg/m² 1 h Rat Read-across	Oral	LD50	Other			Rat	Male/female	Experimental v
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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	 Observation time point	Species	 Value determination
Skin	Sensitizing				Literature study
Inhalation	Sensitizin <mark>g</mark>				Literature study

4,4'-methylenediphenyl diisocyanate

Route of exposure	Result	Method	•	Observation time point	Species		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	Observation time point	Species	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		Value determination
Inhalation (aerosol)	NOAEC	Equivalent to OECD 453	0.2 mg/m ³			104 weeks (6h/day, 5 days/week)	Rat	Male/femal e	Read-across
Inhalation (aerosol)	LOAEC	Equivalent to OECD 453	1 mg/m³	Respiratory tract		104 weeks (6h/day, 5 days/week)	Rat	Male/femal e	Read-across

alkanes, C14-17, chloro;

Route of exposure	Paramet	er	Method	Value	Organ	Effect	Exposure time	Species		Value determination
Oral	NOAEL		Equivalent to OECD 408	300 ppm	,	No adverse systemic effects	(-)	Rat		Experimental value
Oral	NOAEL		Equivalent to OECD 408	100 mg/kg bw/day	- /	No adverse systemic effects	(-)	Rat	,	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	OECD 471	Bacteria (S.typhimurium)		Experimental value
activation, negative without				
metabolic activation				

Publication date: 2012-03-23

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Mutagenicity (in vivo)

No Nonsense Expanding Foam hand held

No (test)data on the mixture available

4,4'-methy	/lenedir	henvl	diisocy	vanate

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

alkanes, C14-17, chloro;

R	tesult	Method	Exposure time	Test substrate	Gender	Organ	Value determination
Ν	O	Equivalent to OECD 475	5 day(s)	Rat	Male		Experimental value
Ν	-0	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

٠.	meen jiene po	Typricity: 100	o y arrace						
		Parameter	Method	Value	Exposure time	Species		Organ	Effect
	exposure						determination		
	Inhalation					Rat	Literature study		Neoplastic
	(aerosol)								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	0,	104 weeks (6h/day, 5 days/week)	Rat	Male/female	Read-across		No effect
Inhalation (aerosol)	LOAEL	Equivalent to OECD 453	. 0,	104 weeks (6h/day, 5 days/week)	Rat	Male/female	Read-across	Respiratory tract	

alkanes, C14-17, chloro;

Route of	Parameter	Method	Value	Exposure time	Species	Gender	Value	Organ	Effect
exposure							determination		
Oral	-	•	. 0, 0	104 weeks (5 days/week)	Rat	Male/female	Read-across		
Oral	_	•	. 0, 0	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

	Parameter	Method		Exposure time	Species	Gender	Effect	. 3	Value determination
Developmental toxicity	NOAEL (P)	OECD 414	O.	10 days (6h/day)	Rat		maternal toxicity		Read-across
	NOAEL (F1)	OECD 414	O,	10 days (6h/day)	Rat	Female	Teratogenicit Y		Read-across

alkanes, C14-17, chloro;

	Parameter	Method		Exposure time	Species	Gender	Effect	9	Value determination
Developmental toxicity	LOAEL		3125 mg/kg bw/day		Rat	Female			Experimental value
	NOAEL (F1)	OECD 421	100 mg/kg bw/day		Rat	Male/femal e	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

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No Nonsense Expanding Foam hand held 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 CLP carc cat category 2 polymethylene polyphenyl isocyanate EC carc cat CLP carc cat category 2 IARC - classification MAK - Krebserzeugend Kategorie 4,4'-methylenediphenyl diisocyanate EC carc cat CLP carc cat category 2 IARC - classification MAK - Krebserzeugend Kategor<mark>ie</mark> alkanes, C14-17, chloro; IARC - classification 2В vanaf C12 en 60% Cl IARC - remark

SECTION 12: Ecological information

3В

12.1 Toxicity:

No Nonsense Expanding Foam hand held

MAK - Krebserzeugend Kategorie

No (test)data on the mixture available

po	olymethylene polyphenyl isoc <mark>ya</mark>	na	ate_								
		P	Parameter	Method	Value		Ouration	Species	3	Fresh/salt water	Value determination
	Acute toxicity other aquatic organisms	L	.C50		>1000 mg/l	l 9	96 h				Literature study
	Toxicity aquatic micro- organisms	E	C50	OECD 209	>100 mg/l			Activated sludge			Literature study

4,4'-methylenediphenyl diisocyanate

		Parameter	Method	Value	Duration	Species		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	<mark>129.7</mark> mg/l	24 h	Daphnia magna	Static system	Fresh water	Read-across
Toxicity algae and other aqua plants	tic	EC50	OECD 201	> 1640 mg/l		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	 Fresh/salt water	Value determination
Acute toxicity fishes	LC50		>1000 mg/l	96 h	Pisces		
Acute toxicity other aquatic	LC50		<mark>>440</mark> 0 mg/l	48 h	Daphnia magna		
organisms							

propane

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

Conclusion

No data available on ecotoxicity

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lymethylene polyg Biodegradation wa Method					
	ater				
Mothod					
		Value		Duration	Value determination
OECD 302C: Inhe Modified MITI Te	rent Biode <mark>gradabil</mark> est (II)	ity: < 60 %			Experimental value
-methylenediphe	nyl diisocyanate				
Biodegradation wa	ater				
Method		Value		Duration	Value determination
OECD 302C: Inhe Modified MITI Te	rent Biode <mark>gradabil</mark> est (II)	ity: 0 %		28 day(s)	Read-across
nethyl ether Biodegradation wa					
Method	1161	Value		Duration	Value determination
OECD 301A: DOC	Dio Away Tost	5 %		28 day(s)	Experimental value
	. Die-Away Test	Ρ //		20 uay(3)	Experimental value
opane Biodegradation wa	ater				
Method		Value		Duration	Value determination
OECD 301E: Mod	lified OEC <mark>D Screeni</mark>	ing Test 70 %			Experimental value
<u>butane</u> Biodegradation wa	ater				
Method		Value		Duration	Value determination
		72.6 %		35 day(s)	
		50 %		l16 - 26 dav(s)	
ntains non readily 3 Bioaccumula	biodegradable cor			16 - 26 day(s)	
ntains non readily 3 Bioaccumula lymethylene polyg 3CF fishes	ntive potential:	nponent(s)			
ntains non readily 3 Bioaccumula lymethylene polyg 3CF fishes Parameter	ıtive pot <mark>ential:</mark>	nponent(s)	Duration	Species	Value determination
ntains non readily 3 Bioaccumula lymethylene polyp BCF fishes Parameter BCF	henyl isocyanate	nponent(s)	Duration		Value determination Literature study
ntains non readily 3 Bioaccumula lymethylene polyg 3CF fishes Parameter BCF BCF	henyl isocyanate	nponent(s)	Duration	Species	
ntains non readily 3 Bioaccumula lymethylene polys CF fishes Parameter BCF L'-methylenediphe 3CF fishes	Method intyl disocyanate	value		Species Pisces	Literature study
ntains non readily 3 Bioaccumula lymethylene polyp 3CF fishes Parameter BCF 3'-methylenediphe 3CF fishes Parameter	henyl isocyanate Method Method Method	value Value	Duration	Species Pisces Species	Literature study Value determination
ntains non readily 3 Bioaccumula lymethylene polyg 3CF fishes Parameter BCF 1'-methylenediphe 3CF fishes Parameter BCF BCF BCF BCF BCF	Method intyl disocyanate	value		Species Pisces	Literature study
ntains non readily 3 Bioaccumula lymethylene polyg CF fishes Parameter BCF '-methylenediphe CF fishes Parameter BCF BCF GOE BCF BCF BCF BCF BCF BCF BCF BC	henyl isocyanate Method Method Method	value Value 92 - 200	Duration	Species Pisces Species Cyprinus carpio	Literature study Value determination Experimental value
ntains non readily 3 Bioaccumula lymethylene polys 3 Frameter BCF	henyl isocyanate Method Method Method	value Value 92 - 200 Value	Duration	Species Pisces Species	Value determination Experimental value Value determination
Richards Non readily 3 Bioaccumula Rymethylene polyg 3 GF fishes Parameter BCF 1-methylenediphe 3 GF fishes Parameter BCF BCF GG Fishes Parameter BCF BCF BCF Method	Method Method Method OECD 305	value Value 92 - 200	Duration	Species Pisces Species Cyprinus carpio	Literature study Value determination Experimental value
Richards Non readily 3 Bioaccumula Rymethylene polyg BCF fishes Parameter BCF C-methylenediphe BCF fishes Parameter BCF BCF GCF fishes Parameter BCF BCF BCF BCF BCF BCF BCF Amethylenediphe BCF BCF BCF BCF BCF BCF BCF BC	Method Method Method OECD 305	value Value 92 - 200 Value	Duration	Species Pisces Species Cyprinus carpio	Value determination Experimental value Value determination
Richards non readily 3 Bioaccumula Symethylene polygore BCF fishes Parameter BCF SCF fishes Parameter BCF GCF fishes Parameter BCF BCF GCF fishes Parameter	Method Method Method OECD 305	Value 1 Value 92 - 200 Value 5.22	Duration	Species Pisces Species Cyprinus carpio Temperature	Value determination Experimental value Value determination Estimated value
Richards Non readily 3 Bioaccumula Support S	Method Method Method OECD 305	value Value 92 - 200 Value	Duration	Species Pisces Species Cyprinus carpio	Value determination Experimental value Value determination
Residence of the control of the cont	Method Method Method OECD 305	Value 1 Value 92 - 200 Value 5.22	Duration	Species Pisces Species Cyprinus carpio Temperature	Value determination Experimental value Value determination Estimated value Value determination
ntains non readily 3 Bioaccumula lymethylene polyg 3CF fishes Parameter BCF 1'-methylenediphe 3CF fishes Parameter BCF Og Kow Method methylenediphe methylether	Method Method Method OECD 305	Value 1 Value 92 - 200 Value 5.22	Duration	Species Pisces Species Cyprinus carpio Temperature	Value determination Experimental value Value determination Estimated value Value determination
ntains non readily 3 Bioaccumula lymethylene polyg 3CF fishes Parameter BCF 1'-methylenediphe 3CF fishes Parameter BCF Og Kow Method methylenediphe methylether	Method Method Method OECD 305	Value 1 Value 92 - 200 Value 5.22	Duration	Species Pisces Species Cyprinus carpio Temperature	Value determination Experimental value Value determination Estimated value Value determination
Response of the control of the contr	Method Method Method OECD 305	Value 1 Value 92 - 200 Value 5.22 Value 5.5 - >6	Duration	Species Pisces Species Cyprinus carpio Temperature Temperature	Value determination Experimental value Value determination Estimated value Value determination Literature
Response of the control of the contr	Method Method Method OECD 305	Value 1 Value 92 - 200 Value 5.22 Value 5.5 - >6	Duration	Species Pisces Species Cyprinus carpio Temperature Temperature	Value determination Experimental value Value determination Estimated value Value determination Literature Value determination
ntains non readily 3 Bioaccumula lymethylene polyg 3CF fishes Parameter BCF 1-methylenediphe 3CF fishes Parameter BCF 3CF fishes	Method Method Method OECD 305	Value 1 Value 92 - 200 Value 5.22 Value 5.5 - >6	Duration	Species Pisces Species Cyprinus carpio Temperature Temperature Temperature	Value determination Experimental value Value determination Estimated value Value determination Literature Value determination
Richards non readily 3 Bioaccumula Rymethylene polyg 3CF fishes Parameter BCF BCF Parameter BCF BCF BCF BCF Cog Kow Method	Method Method Method OECD 305	Value 1 Value 92 - 200 Value 5.22 Value 5.5 - >6	Duration	Species Pisces Species Cyprinus carpio Temperature Temperature	Value determination Experimental value Value determination Estimated value Value determination Literature Value determination
ntains non readily 3 Bioaccumula lymethylene polyg 3CF fishes Parameter BCF 1-methylenediphe 3CF fishes Parameter BCF 3CF fishes	Method Method OECD 305	Value	Duration 4 week(s)	Species Pisces Species Cyprinus carpio Temperature Temperature Temperature	Value determination Experimental value Value determination Estimated value Value determination Literature Value determination Experimental value
Residue to the control of the contro	Method Method OECD 305	Value	Duration 4 week(s)	Species Pisces Species Cyprinus carpio Temperature Temperature Temperature Species Pisces	Value determination Experimental value Value determination Estimated value Value determination Literature Value determination Literature Value determination Experimental value Value determination
3 Bioaccumula olymethylene polyg BCF fishes Parameter BCF 4'-methylenediphe BCF fishes Parameter BCF Log Kow Method	Method Method Method OECD 305	Value 1 Value 92 - 200 Value 5.22	Duration	Species Pisces Species Cyprinus carpio Temperature	Value determination Value determination Estimated value
Residue to the control of the contro	Method Method Method OECD 305	Value 1 Value 92 - 200 Value 5.22	Duration	Species Pisces Species Cyprinus carpio Temperature	Value determination Experimental value Value determination Estimated value Value determination
ntains non readily 3 Bioaccumula lymethylene polyg 3CF fishes Parameter BCF '-methylenediphe 3CF fishes Parameter BCF GCF fishes Parameter BCF Log Kow Method Method methyl ether Log Kow	Method Method Method OECD 305	Value 1 Value 92 - 200 Value 5.22 Value 5.5 - >6	Duration	Species Pisces Species Cyprinus carpio Temperature Temperature	Value determination Experimental value Value determination Estimated value Value determination Literature
ntains non readily 3 Bioaccumula lymethylene polyg 3CF fishes Parameter BCF 1'-methylenediphe 3CF fishes Parameter BCF GCF fishes Parameter BCF Og Kow Method methylenediphe methylenediphe methylenediphe methylenediphe methylenediphe methylenediphe methylenediphe methylenediphe methylenediphe methylether methylether methylether methylether	Method Method Method OECD 305	Value 1 Value 92 - 200 Value 5.22 Value 5.5 - >6	Duration	Species Pisces Species Cyprinus carpio Temperature Temperature	Value determination Experimental value Value determination Estimated value Value determination Literature Value determination
Richards non readily 3 Bioaccumula Rymethylene polyg 3 GF fishes Parameter BCF 1-methylenediphe 3 Frameter BCF BCF 3 GKow Method Method methyl ether og Kow Method methyl ether og Kow Method	Method Method Method OECD 305	Value 1 Value 92 - 200 Value 5.22 Value 5.5 - >6	Duration	Species Pisces Species Cyprinus carpio Temperature Temperature	Value determination Experimental value Value determination Estimated value Value determination Literature Value determination
3 Bioaccumula lymethylene polyg 3CF fishes Parameter BCF 4'-methylenediphe 3CF fishes Parameter BCF 3CG Kow Method	Method Method Method OECD 305	Value 1 Value 92 - 200 Value 5.22 Value 5.5 - >6	Duration	Species Pisces Species Cyprinus carpio Temperature Temperature	Value determination Experimental value Value determination Estimated value Value determination Literature Value determination
ntains non readily 3 Bioaccumula lymethylene polyg 3CF fishes Parameter BCF 1-methylenediphe 3CF fishes Parameter BCF 3CF fishes	Method Method OECD 305	Value 1 Value 92 - 200 Value 5.22 Value 5.5 - >6	Duration 4 week(s)	Species Pisces Species Cyprinus carpio Temperature Temperature Temperature	Value determination Experimental value Value determination Estimated value Value determination Literature Value determination
ntains non readily 3 Bioaccumula lymethylene polyg 3CF fishes Parameter BCF 1'-methylenediphe 3CF fishes Parameter BCF .og Kow Method .canes, C14-17, chlorog Kow Method .cog Kow	Method Method OECD 305	Value	Duration 4 week(s)	Species Pisces Species Cyprinus carpio Temperature Temperature Temperature Species	Value determination Experimental value Value determination Estimated value Value determination Literature Value determination Experimental value
Richards non readily 3 Bioaccumula Rymethylene polyg 3 Brioaccumula Rymethylene polyg 3 Brioaccumula Rymethylene polyg 3 Brioaccumula Rymethylene polyg BCF fishes Parameter BCF BCF Og Kow Method Method Method Method Depane BCF fishes Parameter BCF BCF Rog Kow Method Method Depane BCF fishes Parameter BCF BCF	Method Method OECD 305	Value	Duration 4 week(s)	Species Pisces Species Cyprinus carpio Temperature Temperature Temperature Species	Value determination Experimental value Value determination Estimated value Value determination Literature Value determination Experimental value
Richards non readily 3 Bioaccumula Rymethylene polyg 3 Brice fishes Parameter BCF 3 Farameter BCF BCF BCF BCF BCF BCF BCF BC	Method Method OECD 305	Value	Duration 4 week(s)	Species Pisces Species Cyprinus carpio Temperature Temperature Temperature Species	Value determination Experimental value Value determination Estimated value Value determination Literature Value determination Experimental value

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<u>isobutane</u>

BCF fishes

Parameter	Metho	od	Value	Dur	ation	Species		Value determination
BCF			20 - 52			Pisces		

BCF other aquatic organisms

Parameter	Metho	d	Value	Dur	ation	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		<mark>25 °C</mark>		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)

<u>isobutane</u>

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:

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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).

Road (ADR)	
14.1 UN number:	
UN number	1950
14.2 UN proper shipping name:	1330
Proper shipping name	Aerosols
14.3 Transport hazard class(es):	ACI 03013
Hazard identification number	
Class	2
Classification code	5F
	jsr j
14.4 Packing group: Packing group	
Labels	2.1
	2.1
14.5 Environmental hazards:	
Environmentally hazardous substance mark	no
14.6 Special precautions for user:	koo
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)
ail (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)
nland waterways (ADN) 14.1 UN number:	
UN number	1950
14.2 UN proper shipping nam <mark>e:</mark>	

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Class Classification code 14.4 Packing group:	2		
	<u> </u>		
14.4 Packing group:	5F		
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 f liquids. A package shall not weigh more than 30 kg. (gross mass)		
ea (IMDG)			
14.1 UN number:			
UN number	1950		
	1230		
14.2 UN proper shipping name:	A I		
Proper shipping name	Aerosols		
14.3 Transport hazard class(es):	2.1		
Class	2.1		
14.4 Packing group:	L.		
Labels	2.1		
14.5 Environmental hazards:			
Marine pollutant	•		
Environmentally hazardo <mark>us substance mark</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 t	the IBC Code:		
Annex II of MARPOL 73/78	Not applicable		
ir (ICAO TI/IATA DCD)			
ir (ICAO-TI/IATA-DGR) 14.1 UN number:			
UN number	1950		
	1930		
14.2 UN proper shipping name:			
Proper shipping name	Aerosols		
14.3 Transport hazard class(es):	h.		
Class	2.1		
14.4 Packing group:			
Packing group			
Labels	2.1		
14.5 Environmental hazards:			
Environmentally hazardo <mark>us substance mark</mark>	no		
14.6 Special precautions for u <mark>ser:</mark>			
Special provisions	A145		
Special provisions	A167		
Special provisions	A802		
Passenger and cargo transport: limited quantities: maximum ne	et quantity 30 kg G		
per packaging			

European legislation.		
		Publication date: 2012-03-23

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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

certain dangerous s	stances, mixtures and articles
	Designation of the substance, of the group of substances or of the mixture Conditions of restriction
polymethylene polyphenyl isocyanato	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 lokes, — 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 (EEN). 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: "Use plants 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 mad indelibly marked by 1 December 2010 as follows: "Usus a sip of grill lighter may lead to life threatening lung damage"; o) and prill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public are packaged in black opaque containers
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 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. (***********************************
National legislation - The Netherlands	
Waterbezwaarlijkhe	(for NL) 6
	ther lists of waste materials LWCA (the Netherlands): KGA category 06
- Germany	
WGK	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
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TA-Luft	a	lkanes, C14-17, chloro;	TA-Luft Klasse 5.2.5/I
TA-Luft	d	imethyl ether	TA-Luft Klasse 5.2.5
TA-Luft	р	ropane	TA-Luft Klasse 5.2.5
TA-Luft	is	obutane	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 <mark>diisocyanate</mark>		C => 5%	STOT SE 3; H335
		C => 0.1%	Resp. Sens. 1; H334
		C => 5%	Skin Irrit. 2; H315
	<u> </u>	C => 5%	Eye Irrit. 2; H319

Specific concentration limits DSD

4,4'-methylenediphenyl diisoc	cyanate	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

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Publication date: 2012-03-23

Revision number: 0000 Product number: 51803 18 / 18