

## **SAFETY DATA SHEET**

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

## Soudafoam 1K UK

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

1.1 Product identifier:

Product name : Soudafoam 1K UK 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 flam mable aerosol.
Carc.	category 2	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	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.	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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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





Extremely flammable

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

## R-phrases

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 not breathe spray
36/37	Wea <mark>r suitable protective clothing and glov</mark> es

## 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 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 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%) ( - )						

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

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<sup>(2)</sup> Substance with a Community workplace exposure limit

<sup>(8)</sup> 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	S	Short time value			1500 mg/m³	1
	S	hort time value, calcula	ited		783 ppm	
	Ī	ime-weighted average	exposure limit 8	h	950 mg/m³	
	T	ime-weighted average	exposure limit, ca	alculated	496 ppm	7
Indicative exposure limi	t (the Netherland	s)				

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

Limit Value (Belgium)

4,4'-Diisocyanate de di (MDI)	ohénylméthane	Short time value		- ppm - mg/m³	
		Time-weighted averag	•	0.005 ppm 0.052 mg/m³	
Oxyde de diméthyle		Short time value		- ppm - mg/m³	
		Time-weighted averag		1000 ppm 1920 mg/m³	

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Lludrosorburos aliabatiques sous forma	Chart time value				
Hydrocarbures aliphatiques sous forme gazeuse: (Alcanes C1-C4)	Short time value			- ppm - mg/m³	
	Time-weighted averag	e exposure lim	nit 8 h	1000 ppm - mg/m³	
	Short time value			- ppm - mg/m³	
	Time-weighted averag	ge exposure lim		1000 ppm - mg/m³	
TLV (USA)					
Methylene hisphenyl isocyanate (MDI)	Short time value				

Methylene bisphenyl isoo	cyanate (MDI)	Short time value					
		Time-weighted averag	e exposure limit 8 l	n	0.005 ppm	1	
Aliphatic hydrocarbon ga	ises -	Short time value		h	-		
alkanes(C1-C4)							
		Time-weighted averag	e exposure limit 8 l	n	1000 ppm		

## TRGS 900 (Germany)

rkus 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 <sup>3</sup>	
Propan		Time-weighted averag		1000 ppm 1800 mg/m³	

## Limit Value (France)

Elitilit Value (France)					
4,4'-Diisocyanate de diph <mark>énylméthane</mark>		Short time value		0.02(5 min) ppm 0.2(5 min) mg/m³	
		Time-weighted average	e exposure limit 8 h	0.01 ppm 0.1 mg/m <sup>3</sup>	
Oxyde de diméthyle		Short time value		- ppm - mg/m³	
		Time-weighted average	e 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(phen	ylisocyanate)	NIOSH	5525
Methylene Bisphenyl Iso	ocyanate	OSHA	47
4,4-Methylene Bispheny <mark>l Isocyanate (MDI) (Isocyanates)</mark>		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/DM	EL)	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 <sup>2</sup>	
		Acute local effects inhalation	0.1 mg/m³	
		Long-term systemic effects inhalation	0.05 mg/m <sup>3</sup>	
		Long-term local effects inhalation	0.05 mg/m <sup>3</sup>	

alkanes, C14-17, chloro;

Effect level (DNEL/DM	EL)	Туре	Value	Remark
DNEL		Long-term systemic effects dermal	47.9 mg/kg bw/day	
		Long-term systemic effects inhalation	6.7 mg/m <sup>3</sup>	

## **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 <sup>3</sup>	
		Acute -systemic effects oral	20 mg/kg bw/day	
		Acute local effects dermal	17.2 mg/cm <sup>2</sup>	
		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 <sup>3</sup>	

### 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 rele <mark>ases)</mark>	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

Soudafoam 1K UK

No (test)data on the mixture available

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Depart   Disposition   Dispo	- 11		_		L				
Dermal   USGO   Security   Defended   Parameter   Defended   Parameter   Defended   Parameter   Defended   Parameter   Defended   Parameter   Defended		Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Dermal   USGO   Security   Defended   Parameter   Defended   Parameter   Defended   Parameter   Defended   Parameter   Defended   Parameter   Defended	-	•	LD50		> 10000 mg/kg		Rat		Literature stud
4_6/	-								
Route of exposure   Parameter   Paramete	L			<u> </u>	3000 11.6/1.6		riazzit		2.00.000.000
Dermal LDS0 Other 9200 mg/kg bw 24 h Rat Male/female Read-across equivalent to DECD 9900 mg/kg bw 24 h Rabbit Male/female Read-across equivalent to DECD 1900 mg/kg bw 24 h Rabbit Male/female Read-across equivalent to DECD 1900 mg/kg bw 24 h Rabbit Male/female Sperimental searous)  381anes, C14-17, chloro;  Route of Rarameter Method Value Exposure time Species Gender Value determination of LDS0 Other >100 ml/kg bw Rat Male/female Experimental searous of LDS0 Other >100 ml/kg bw Rat Male/female Experimental searous of LDS0 Other >100 ml/kg bw Rat Male/female Experimental searous of LDS0 Other >100 ml/kg bw Rat Male/female Experimental searous of LDS0 Other >100 ml/kg bw Rat Male/female Experimental searous of LDS0 Other >100 ml/kg bw Rat Male/female Experimental searous of LDS0 Other >100 ml/kg bw Rat Male/female Experimental searous of LDS0 Other >100 ml/kg bw Rat Male/female Experimental searous of LDS0 Other >100 ml/kg bw Rat Male/female Experimental searous of LDS0 Other >100 ml/kg bw Rat Male/female Experimental searous of LDS0 Other >100 ml/kg bw Rat Male/female Experimental searous of LDS0 Other >100 ml/kg bw Rat Male/female Experimental searous of LDS0 Other >100 ml/kg bw Rat Male/female Experimental searous of LDS0 Other >100 ml/kg bw Rat Male/female Experimental searous of LDS0 Other >100 ml/kg bw Rat Male/female Experimental searous of LDS0 Other >100 ml/kg bw Rat Male/female Experimental searous of LDS0 Other >100 ml/kg bw Rat Male/female Radio Ratio Rat		Route of			Value	Exposure time	Species	Gender	
Dermal   LD50   Equivalent to OECD   3400 mg/kg bw   24 h   Rabbit   Vale/female   Read-across   R	-	•	LD50	Other	>2000 mg/kg bw		Rat	Male/female	Read-across
Sances C14-17, chloro:   Nature   Nat				· ·		24 h			Read-across
Route of exposure   Parameter   Method   Value   Exposure time   Species   Gender   Value   Gentermination   Casa			LC50	OECD 403	>2.24 mg/l	1 h	Rat	Male/female	Experimental v
exposure	alka	nes, C14-17, chlo	ro;						
Dermal D50 Other   \$4000 ml/kg bw   \$8at   \$8at   \$8at   \$8at   \$1000 ml/kg bw   \$1000 ml/k			Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Dermal UDSO   \$1500 mg/kg bw 24 h Rat   Read-across   Read	(	Oral	LD50	Other	>10 ml/kg bw		Rat		Experimental v
permal DSO   2200 mg/kg bw   24 h   8at   Read-across   Inhalation   LCSO   Other   2-3.3 mg/l   1 h   Rat   Read-across   Read-across   Inhalation   LCSO   Other   248170 mg/m²   1 h   Rat   Read-across   Read-a	(	Oral	LD50	Other	>4000 ml/kg bw		Rat	Male/female	Experimental v
Inhalation   CSO   Other   3-3 mg/l   1 h   Rat   Read-across   Inhalation   LCSO   Other   3-48170 mg/m³   1 h   Rat   Read-across   Inhalation   LCSO   Other   3-48170 mg/m³   1 h   Rat   Read-across   Inhalation   LCSO   Parameter   Method   Value   Exposure time   Species   Gender   Value   Inhalation   LCSO   163991 ppm   4 h   Rat   Literature stud   Inhalation   LCSO   163991 ppm   4 h   Rat   Literature stud   Inhalation   LCSO   163991 ppm   4 h   Rat   Literature stud   Inhalation   LCSO   153 mg/l   4 h   Rat   Literature stud   Inhalation   LCSO   153 mg/l   4 h   Rat   Read-across   Inhalation   LCSO   153 mg/l   4 h   Rat   Read-across   Inhalation   LCSO   153 mg/l   4 h   Rat   Read-across   Inhalation   LCSO   280000 ppm   4 h   Rat   Read-across   Inhalation   LCSO   Read   Read-across   Inhalation   LCSO   Read   Read-across   Inhalation   LCSO   Read   Read-across   Inhalation   LCSO   Read   Read-across   Inhalation   Read-across   Inhalati	Ī	Dermal	LD50		>13500 mg/kg bw	24 h	Rabbit		Read-across
Inhalation   CCSO   Other   A8170 mg/m³   1 h   Rat   Read-across   Read	Ī	Dermal	LD50		>2800 mg/kg bw	24 h	Rat		Read-across
Comparison   Com	Ī	Inhalation	LC50	Other	>3.3 mg/l	1 h	Rat		Read-across
Route of exposure   Parameter   Method   Value   Exposure time   Species   Gender   Malue   Method   Malue   Method   Me			LC50	Other	>48170 mg/m³	1 h	Rat		Read-across
Route of exposure   Parameter   Method   Value   Exposure time   Species   Gender   Malue   Method   Malue   Method   Me	dime	ethyl ether		•					•
Inhalation   LCSO   L		Route of	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Route of exposure   Parameter   Parameter   Parameter exposure   Parameter	Ī	Inhalation	LC50		309 mg/l	4 h	Rat		Literature stud
Route of exposure   Parameter   Parameter   Parameter exposure   Parameter	Ī	Inhalation	LC50		163991 ppm	4 h	Rat		Literature stud
Route of exposure   Parameter   Method   Value   Exposure time   Species   Gender   Value   determination   Inhalation   LC50   S13 mg/l   4 h   Rat     Iterature   Iterature   Iterature   Route of exposure   Parameter   Method   Value   Exposure time   Species   Gender   Value   Method   Value   Exposure time   Species   Gender   Value   Method   Value   Exposure time   Species   Gender   Value   Method   Value   Method   Value   Exposure time   Species   Gender   Value   Method   Method   Value   Method   Met	nror	nane							ı
Inhalation LC50		Route of	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Sobutane   Parameter   Method   Value   Exposure time   Species   Gender   Value   Exposure time   Species   Gender   Value   Exposure time   Species   Gender   Value   Getermination   CISS   Species   Gender   Value   Getermination   Value   Species   Gender   Value   Getermination   Getermination   Value   Geterm	Ī	Inhalation	LC50		513 mg/l	4 h	Rat		literature
Route of exposure   Method   Value   Exposure time   Species   Gender   Malue   determination   LCSO     > 50 mg/l   4 h   Rat	1	Inhalation	LC50		280000 ppm	4 h	Rat		literature
Route of exposure   Method   Value   Exposure time   Species   Gender   Malue   determination   LCSO     > 50 mg/l   4 h   Rat									
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Eye   Irritating   Literature study   Skin   Irritating   Literature study   Inhalation   Irritating   Literature study   Inhalation   Irritating   Literature study    4,4'-methylenediphenyl diisocyanate    Route of exposure   Result   Method   Exposure time   Time point   Species   Value determinat   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   Inhalation   Irritating   Human   Weight of evidence   Inhalation   Result   Method   Exposure time   Time point   Species   Value determinat   Eye   Slightly irritating   Rabbit   Expert judgement   Skin   Slightly irritating   OECD 404   4 h   24; 72 hours   Rabbit   Expert judgement   Expert	Class Concle Harr Low Low	utane Route of exposure Inhalation sification of the r usion mful if inhaled. acute toxicity by acute toxicity by n/irritation	Parameter  LC50  Inixture is base the dermal rethe oral rout	ed on the relevant ingred oute e	> 50 mg/l	4 h		Gender	determination
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Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

## Respiratory or skin sensitisation

## Soudafoam 1K UK

No (test)data on the mixture available

polymethylene polyphenyl isocyanate

Route of exposure	Result	Method	 Observation time point	Species	 Value determination
Skin	Sensitizin <mark>g</mark>				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

## Soudafoam 1K UK

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 <sup>3</sup>			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	I	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)

## Soudafoam 1K UK

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				

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## Mutagenicity (in vivo)

## Soudafoam 1K UK

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

## Soudafoam 1K UK

No (test)data on the mixture available

polymethylene polyphenyl isocyanate

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

4,4'-methylenediphenyl diisocyanate

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

alkanes, C14-17, chloro;

Route of exposure	Parameter	Method	Value	Exposure time	Species		Value determination	Organ	Effect
Oral	_	•	. 0, 0	104 weeks (5 days/week)	Rat	Male/female	Read-across		
Oral	_	•	O, O	103 weeks (5 days/week)	Mouse	Male/female	Read-across		

## Reproductive toxicity

## Soudafoam 1K UK

No (test)data on the mixture available

4,4'-methylenediphenyl diisocyanate

	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		•	Species	Gender	Effect	- J	Value
				time					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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## Soudafoam 1K UK Not classified for mutagenic or genotoxic toxicity Toxicity other effects Soudafoam 1K UK No (test)data on the mixture available Conclusion No (test)data available 11.1.2 Other information Soudafoam 1K UK 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 Kategorie alkanes, C14-17, chloro; IARC - classification 2В vanaf C12 en 60% Cl IARC - remark MAK - Krebserzeugend Kategorie 3В SECTION 12: Ecological information

## 12.1 Toxicity:

Soudafoam 1K UK

No (test)data on the mixture available

polymethylene polyphenyl isocyanate

	Parameter	Method	Value	Duration	Species	3	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		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 aquain plants	tic	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	LC50		>4400 mg/l	48 h	Daphnia magna			
organisms								

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

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iodegradation w	vater				
Method	vatol	Value		Duration	Value determination
	erent Biod <mark>egradabi</mark> l			Duration	Experimental value
Modified MITI T	Test (II)	100 70			Experimental value
iodegradation w	nenyl diisocy <mark>anate</mark> vater				
Method		Value		Duration	Value determination
OECD 302C: Inh Modified MITI T	erent Biod <mark>egradabil</mark> Test (II)	lity: 0 %		28 day(s)	Read-across
i <u>ethyl ether</u> iodegradation w		<u> </u>			
Method	vatci	Value		Duration	Value determination
	C Die-Awa <mark>y Test</mark>	5 %		28 day(s)	Experimental value
	C Die-Away Test	P 70		20 day(3)	Experimental value
<u>pane</u> iodegradation w	vater				
Method		Value		Duration	Value determination
OECD 301E: Mo	odified OEC <mark>D Screen</mark>	ing Test 70 %			Experimental value
outane iodegradation w	vater				
Method		Value		Duration	Value determination
		72.6 %		35 day(s)	
		50 %		16 - 26 day(s)	
				The state of the s	
	Method	Value	Duration	Species	Value determination
Parameter	Method	Value	Duration	Species Pisces	Value determination Literature study
Parameter BCF	Method nenyl diisocyanate		Duration		
Parameter BCF -methylenediph CF fishes	nenyl diisoc <mark>yanate</mark>	1		Pisces	Literature study
Parameter BCF -methylenediph CF fishes Parameter	nenyl diisocyanate  Method	1 Value	Duration	Pisces Species	Literature study  Value determination
Parameter BCF -methylenediph CF fishes Parameter BCF	nenyl diisoc <mark>yanate</mark>	1		Pisces	Literature study
Parameter BCF -methylenediph CF fishes Parameter BCF og Kow	nenyl diisocyanate  Method	Value 92 - 200	Duration	Pisces Species Cyprinus carpio	Literature study  Value determination  Experimental value
Parameter BCF -methylenediph CF fishes Parameter BCF og Kow	nenyl diisocyanate  Method	Value 92 - 200	Duration	Pisces Species	Value determination  Experimental value  Value determination
Parameter BCF -methylenediph CF fishes Parameter BCF og Kow Method	Method OECD 305	Value 92 - 200	Duration	Pisces Species Cyprinus carpio	Literature study  Value determination  Experimental value
Parameter BCF -methylenediph CF fishes Parameter BCF og Kow Method	Method OECD 305	Value 92 - 200	Duration	Pisces Species Cyprinus carpio	Value determination  Experimental value  Value determination
Parameter BCF -methylenediph CF fishes Parameter BCF og Kow Method  anes, C14-17, ch	Method OECD 305	Value 92 - 200	Duration	Pisces Species Cyprinus carpio	Value determination  Experimental value  Value determination
Parameter BCF -methylenediph CF fishes Parameter BCF og Kow Method  anes, C14-17, ch	Method OECD 305	Value 92 - 200 Value 5.22	Duration	Pisces  Species Cyprinus carpio  Temperature	Value determination Experimental value  Value determination Estimated value
Parameter BCF -methylenediph CF fishes Parameter BCF og Kow Method  anes, C14-17, ch og Kow Method	Method OECD 305	Value 92 - 200 Value 5.22	Duration	Pisces  Species Cyprinus carpio  Temperature	Value determination Experimental value  Value determination Estimated value  Value determination
Parameter BCF -methylenediph CF fishes Parameter BCF og Kow Method  mes, C14-17, ch og Kow Method  methylether	Method OECD 305	Value 92 - 200 Value 5.22	Duration	Pisces  Species Cyprinus carpio  Temperature	Value determination Experimental value  Value determination Estimated value  Value determination
Parameter BCF -methylenediph CF fishes Parameter BCF og Kow Method  mes, C14-17, ch og Kow Method  methyl ether og Kow	Method OECD 305	Value 92 - 200  Value 5.22  Value 5.5 - >6	Duration	Pisces  Species Cyprinus carpio  Temperature	Value determination Experimental value  Value determination Estimated value  Value determination Literature  Value determination
Parameter BCF -methylenediph CF fishes Parameter BCF og Kow Method  mes, C14-17, ch og Kow Method  methyl ether og Kow	Method OECD 305	Value 92 - 200  Value 5.22  Value 5.5 - >6	Duration	Pisces  Species Cyprinus carpio  Temperature  Temperature	Value determination Experimental value  Value determination Estimated value  Value determination Literature
Parameter BCF -methylenediph CF fishes Parameter BCF og Kow Method  mes, C14-17, ch og Kow Method  methylether og Kow Method	Method OECD 305	Value 92 - 200  Value 5.22  Value 5.5 - >6	Duration	Pisces  Species Cyprinus carpio  Temperature  Temperature	Value determination Experimental value  Value determination Estimated value  Value determination Literature  Value determination
Parameter BCF -methylenediph CF fishes Parameter BCF og Kow Method  mes, C14-17, ch og Kow Method  methyl ether og Kow Method  methyl ether og Kow Method  pane CF fishes	Method OECD 305	Value 92 - 200  Value 5.22  Value 5.5 - >6  Value 0.10	Duration 4 week(s)	Pisces  Species Cyprinus carpio  Temperature  Temperature  Temperature	Value determination Experimental value  Value determination Estimated value  Value determination Literature  Value determination Experimental value
Parameter BCF -methylenediph CF fishes Parameter BCF og Kow Method  anes, C14-17, ch og Kow Method  ethyl ether og Kow Method  cethyl ether og Kow Method  cethyl ether og Kow Method  cethyl ether og Kow Method  pane CF fishes Parameter	Method OECD 305	Value 92 - 200  Value 5.22  Value 5.5 - >6  Value 0.10	Duration	Pisces  Species Cyprinus carpio  Temperature  Temperature  Temperature  Species	Value determination Experimental value  Value determination Estimated value  Value determination Literature  Value determination
Parameter BCF BCF BCF BCF BCF BCF BCF BCS BCF BCS	Method OECD 305	Value 92 - 200  Value 5.22  Value 5.5 - >6  Value 0.10	Duration 4 week(s)	Pisces  Species Cyprinus carpio  Temperature  Temperature  Temperature	Value determination Experimental value  Value determination Estimated value  Value determination Literature  Value determination Experimental value
Parameter BCF GR Kow Method Me	Method OECD 305	Value 92 - 200  Value 5.22  Value 5.5 - >6  Value 0.10  Value 9 - 25	Duration 4 week(s)	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
CF fishes Parameter BCF -methylenediph CF fishes Parameter BCF  og Kow Method  mes, C14-17, ch og Kow Method  methylether og Kow Method  pane CF fishes Parameter BCF  og Kow Method	Method OECD 305	Value   92 - 200   Value   5.22   Value   5.5 - >6   Value   0.10   Value   9 - 25   Value	Duration 4 week(s)	Pisces  Species Cyprinus carpio  Temperature  Temperature  Temperature  Species	Value determination Experimental value  Value determination Estimated value  Value determination Literature  Value determination Experimental value  Value determination Experimental value
Parameter BCF -methylenediph CF fishes Parameter BCF og Kow Method -mes, C14-17, ch og Kow Method -methyl ether og Kow Method	Method OECD 305	Value 92 - 200  Value 5.22  Value 5.5 - >6  Value 0.10  Value 9 - 25	Duration 4 week(s)	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

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### **BCF** fishes

Parameter	Metho	d	Value	Dur	ration	Species		Value determination
BCF			20 - 52			Pisces		

## BCF other aquatic organisms

Parameter	Method		Value Dura		uration Sp		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:

### Soudafoam 1K UK

### 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:

### Soudafoam 1K UK

### 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:

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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).

TION 14: Transport information	
oad (ADR)	
14.1 UN number:	
UN number	1950
14.2 UN proper shipping name:	
Proper shipping name	Aerosols
14.3 Transport hazard class(es):	, c. 6666
Hazard identification number	
Class	2
Classification code	5F
14.4 Packing group:	Si S
Packing group	
Labels	2.1
14.5 Environmental hazards:	2.1
	lag .
Environmentally hazardous substance mark  14.6 Special precautions for user:	no
Special previsions	190
• •	
Special provisions	327
Special provisions	344 625
Special provisions	
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):	y all debts
Hazard identification number	23
Class	2
Classification code	5F
14.4 Packing group:	<b>S</b>
Packing group	
Labels	2.1
14.5 Environmental hazards:	
Environmentally hazardous substance mark	no
14.6 Special precautions for user:	
Special precautions for user.	190
	327
Special provisions Special provisions	344
	625
Special provisions	
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:	horo
14.1 UN number: UN number	1950
14.1 UN number:	1950 Aerosols

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14.3 Transport hazard class(es):   class   2   2   2   2   3   5   5   5   5   5   5   5   5   5	Soudafoam 1K UK								
Classification code  1.4. a Packing group:	14.3 Transport hazard class(es):								
Classification code  1.4. a Packing group:	Class		2						
14. Facking group: Packing group: Jabels 14. Environmental hazards: Environmental hazards: Environmental hazards: Environmental hazards: Special provisions Special p									
packing group   Jabels   2,1     14. 5 Environmentally hazardous substance mark       16. 5 Environmentally hazardous substance mark       17. 5 Environmentally hazardous substance mark       18. 5 Special provisions       19. 5 Special provisions       6 Special provisions       7 Special provisions       8 Special provisions       18 Special provisions       19. 10 Number       1									
Labels  1.1. S Environmental hazards Environmentally hazardous substance mark  1.4. S Epecial prevaitions for user:  Special provisions Special pr									
1.4. 5 Environmental hazards. Environmentally hazardous substance mark  1.6. S special prevailins for user.  Special provisions Unified quantities Unified quantities Unified quantities Unified quantities Unified quantities Special provisions			2 1						
Environmentally hazardous substance mark  14.6 Special procusions  Special provisions			2.1						
14.6 Special provisions Special		instance mark	no						
Special provisions   190									
Special provisions Special provi			190						
Special provisions Special provi									
Special provisions Limited quantities Combination packagings: not more than 1 liter per inner packaging fo liquids. A package shall not weigh more than 30 kg. (gross mass)  Sea (IMDG) 14. 1 UN number: UN number: Proper shipping name: Proper shipping name Aerosols 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: Marrine pollutant Environmentally hazardous substance mark no 14. 5 Special previsions Special provisions Limited quantities Limited quantities Limited quantities Limited provisions Limited p									
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UN number 1950  14.2 UN proper shipping name Aerosols  14.3 Transport hazard class(es):  Class 2.1  14.4 Packing group: Labels 2.1  14.5 Environmental hazards; Marrine pollutant - Environmentally hazardous substance mark no  14.6 Special provisions 190 Special provisions 190 Special provisions 327 Special provisions 344 Special provisions 344 Special provisions 344 Special provisions 344 Special provisions 944 Special provisions 954 Special provisions 965 Special provisions 967 Special provisions 97 Special provisions 97 Special provisions 98 S									
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14.4 Packing group: Labels 2.1  14.5 Environmental hazards:  Marine pollutant Environmentally hazardous substance mark no  14.6 Special provisions Passerger and cargo transport: limited quantities: maximum net quantity 30 kg G									
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14.6 Special precautions for user:  Special provisions  I	Marine pollutant								
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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 30 kg G									
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 30 kg G	· · · · · · · · · · · · · · · · · · ·								
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  Special provisions  A145  Special provisions  A167  Special provisions  A802  Passenger and cargo transport: limited quantities: maximum net quantity 30 kg G									
Proper shipping name  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  Special provisions  A145  Special provisions  A167  Special provisions  A802  Passenger and cargo transport: limited quantities: maximum net quantity 30 kg G	UN number		1950						
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 30 kg G									
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 30 kg G	Proper shipping name		Aerosols						
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14.6 Special precautions for user:  Special provisions  A145 Special provisions  A167 Special provisions  A802 Passenger and cargo transport: limited quantities: maximum net quantity 30 kg G	14.5 Environmental hazards:								
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	Passenger and cargo transport	t: limited quantities: maximum n							
	TION 15: Regulatory	information							

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

European legislation:			
	1	Publication	on date: 2012-03-23

Revision number: 0000 Product number: 51803 16/18

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 Conditions of restriction ubstances or of the mixture polymethylene polyphenyl isocyanate iquid substances or mixtures, which are 1. Shall not be used in: — ornamental articles intended to produce light or colour effects by alkanes, C14-17, chloro; egarded as dangerous according to the means of different phases, for example in ornamental lamps and ashtrays, — tricks and definitions in Council Directive 67/548/EEC and jokes, 🕒 games for one or more participants, or any article intended to be used as such, Directive 1999/54/EC. 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 f 1December 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 f 1December 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 lable to the Commission dimethyl ether Substances meeting the criteria of 1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol lammability in Directive 67/548/ EEC and propane dispensers are intended for supply to the general public for entertainment and decorative <mark>classified as flammable, highly flam</mark>mable or purposes such as the following: — metallic glitter intended mainly for decoration, isobutane extremely flammable regardless of whether artificial snow and frost,  $\,-\,$  "whoopee" cushions,  $\,-\,$  silly string aerosols,  $\,-\,$  imitation they appear in Part 3 of Annex VI to Regulation excrement, — horns for parties, — decorative flakes and foams, — artificial cobwebs, (EC) No 1272/2008 or not. 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. Methylenediphenyl dijsocyanate (MDI) 1. Shall not be placed on the market after 27 December 2010, as a constituent of mixtures in polymethylene polyphenyl isocyanate 4,4'-methylenediphenyl diisocyanate 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) Waste identification other 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 Publication date: 2012-03-23

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TA-Luft	al	kanes, C14-17, chloro;	TA-Luft Klasse 5.2.5/I
TA-Luft	di	imethyl ether	TA-Luft Klasse 5.2.5
TA-Luft	pi	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 d <mark>iisocyanate</mark>	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	L % <= 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.

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