

SAFETY DATA SHEET

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

Soudafoam FR

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

1.1 Product identifier:

Product name : Soudafoam FR

Registration number REACH : Not applicable (mixture)

Product type REACH : Mixture

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 safety data sheet

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

Manufacturer 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) (Telephone advice: English, French, German, Dutch)

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 statements
Flam. Aerosol	categ <mark>ory 1</mark>	H222: Extremely flammable aerosol.
Carc.	categ <mark>ory 2</mark>	H351: Suspected of causing cancer.
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

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

F+; R12 - Extremely flammable.

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

Xi; R36/37/38 - Irritating to eyes, respiratory system and skin.

Created by: Brandweerinformatiecentrum voor gevaarlijke stoffen vzw (BIG)

Technische Schoolstraat 43 A, B-2440 Geel

http://www.big.be © BIG vzw

Reason for revision: CLP

Revision number: 0100

Publication date: 2008-11-18 Date of revision: 2012-07-16

Product number: 47506 1/18

R42/43 - May cause sensitisation by inhalation and skin contact.

2.2 Label elements:

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







Contains polymethylene polyphenyl

our rains purjuncting issued	polypiloliji looojallatol
Signal word	Danger
H-statements	
H222	Extremely flammable aerosol.
H351	Suspected of causing cancer.
⊔ 333	Harmful if inhaled

May cause damage to organs through prolonged or repeated exposure if inhaled. H373

H319 Causes serious eye irritation. H335 May cause respiratory irritation. H315 Causes skin irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled. H334

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.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P210

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

R-phrases

20	Harmiul by innaiation
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 of

Harmful by inhalatio

contact

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

S-phrases

Reason for revision: CLP

02 Keep out of reach of children

Keep away from sources of ignition - No smoking 16

Do not breathe spray 23

Wear suitable protective clothing and gloves 36/37

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) (63)

Additional recommendations

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.

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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:

CLP

May be ignited by sparks

Gas/vapour spreads at floor level: ignition hazard

Aerosol may explode under the effect of heat

Contains component(s) included in the list of substances which may contribute to the greenhouse effect (Regulation (EC) No 842/2006)

DSD/DPD

May be ignited by sparks

Gas/vapour spreads at floor level: ignition hazard

Aerosol may explode under the effect of heat

Contains component(s) included in the list of substances which may contribute to the greenhouse effect (Regulation (EC) No 842/2006)

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
nalogenated polyetherpolyol M 125 (-)	86675-46-9	1% <c<25%< td=""><td>Xn; R22</td><td>Acute Tox. 4; H302</td><td>(1)</td><td>Constituent</td></c<25%<>	Xn; R22	Acute Tox. 4; H302	(1)	Constituent
ris(2-chloro-1-methylethyl) pho <mark>sphate (01-</mark> 2119447716-31)	13674-84-5 237-158-7	1% <c<25%< td=""><td>Xn; R22</td><td>Acute Tox. 4; H302</td><td>(1)(10)</td><td>Constituent</td></c<25%<>	Xn; R22	Acute Tox. 4; H302	(1)(10)	Constituent
riethyl phosphate (01-2119492 <mark>852-28)</mark>	78-40-0 201-114-5	1% <c<25%< td=""><td>Xn; R22</td><td>Acute Tox. 4; H302</td><td>(1)(10)</td><td>Constituent</td></c<25%<>	Xn; R22	Acute Tox. 4; H302	(1)(10)	Constituent
oolymethylene polyphenyl isocy <mark>anate(-)</mark>	9016-87-9	C>25%	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)	Polymer
1,1-difluoroethane (01-2119474 <mark>440-43)</mark>	75-37-6 200-866-1	1% <c<10%< td=""><td>F+; R12</td><td>Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280</td><td>(1)(10)</td><td>Propellant</td></c<10%<>	F+; R12	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(10)	Propellant
sobutane (-)	75-28-5 200-857-2	1% <c<10%< td=""><td>F+; R12</td><td>Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280</td><td>(1)(2)(10)</td><td>Propellant</td></c<10%<>	F+; R12	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant
dimethyl ether (01-2119472128 <mark>-37)</mark>	115-10-6 204-065-8	1% <c<10%< td=""><td>F+; R12</td><td>Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280</td><td>(1)(2)(10)</td><td>Propellant</td></c<10%<>	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

SECTION 4: First aid measures

4.1 Description of first aid measures:

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.

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⁽²⁾ Substance with a Community workplace exposure limit

⁽¹⁰⁾ Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

After skin contact:

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

After eve 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 unwell.

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 Jung 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:

BC powder. Carbon dioxide. Sand/earth.

5.1.2 Unsuitable extinguishing media:

Solid water jet ineffective as extinguishing medium.

5.2 Special hazards arising from the substance or mixture:

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, phosphorus oxides, hydrogen bromide, hydrogen chloride, hydrofluoric acid) (carbon monoxide - carbon dioxide).

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:

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

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

6.2 Environmental precautions:

Dam up the liquid 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. Carefully collect the spill/leftovers. 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

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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. Gas/vapour heavier than air at 20°C. 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:

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

7.2.2 Keep away from:

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.

The Netherlands			
Dimethylether	Short time value	783 ppm Public occu 1500 mg/m³	pational exposure limit value
	Time-weighted average exposure limit 8 h	496 ppm Public occu 950 mg/m³	pational exposure limit value
EU			
Dimethylether	Time-weighted average exposure limit 8 h	1000 ppm Indicative o 1920 mg/m³ value	ccupational exposure limit
Belgium			
Oxyde de diméthyle	Time-weighted average exposure limit 8 h	1000 ppm 1920 mg/m³	
Hydrocarbures aliphatiq <mark>ues sou</mark> gazeuse : (Alcanes C1-C4 <mark>)</mark>	us forme Time-weighted average exposure limit 8 h	1000 ppm	
Germany			
Isobutan	Time-weighted average exposure limit 8 h	1000 ppm TRGS 900 2400 mg/m ³	
Dimethylether	Time-weighted average exposure limit 8 h	1000 ppm TRGS 900 1900 mg/m³	
France			
Oxyde de diméthyle	Time-weighted average exposure limit 8 h	1000 ppm VRI: Valeur 1920 mg/m³	réglementaire indicative
UK			
Isocyanates, all (as -NCO) Exce isocyanate	pt methyl Short time value	0.07 mg/m³ Workplace	exposure limit (EH40/2005)
	Time-weighted average exposure limit 8 h	0.02 mg/m³ Workplace	exposure limit (EH40/2005)
Dimethyl ether	Short time value	500 ppm Workplace 958 mg/m³	exposure limit (EH40/2005)
	Time-weighted average exposure limit 8 h	400 ppm Workplace 766 mg/m³	exposure limit (EH40/2005)

b) National biological limit values

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

8.1.2 Sampling methods

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Product name	Test	Number
4,4-Methylene Bisphenyl Isocyanate (MDI) (Isocyanates)	NIOSH	5521
4,4'-Methylenebis(pheny <mark>lisocyanate)</mark>	NIOSH	5525
Isocyanates	NIOSH	5522
Isocyanates	NIOSH	5521
Methylene Bisphenyl Isoc <mark>yanate</mark>	OSHA	47

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

DNEL - Workers

tris(2-chloro-1-methylethyl) phosphate

Effect level (DNEL/DMEL)	Туре	Value	Remark
DNEL	Acute systemic effects dermal	0.528 mg/kg bw/day	
	Acute systemic effects inhalation	0.93 mg/m³	
	Long-term systemic effects dermal	0.528 mg/kg bw/day	
	Long-term systemic effects inhalation	0.93 mg/m³	

triethyl phosphate

Effect level (DNEL/DMEL)	Туре	Value	Remark
DNEL	Acute systemic effects dermal	26.6 mg/kg bw/day	
	Acute systemic effects inhalation	93.6 mg/m³	
	Acute local effects dermal	26.6 mg/cm ²	
	Acute local effects inhalation	93.6 mg/m³	
	Long-term systemic effects dermal	3.33 mg/kg bw/day	
	Long-term systemic effects inhalation	11.7 mg/m³	
	Long-term local effects dermal	3.33 mg/cm ²	
	Long-term local effects inhalation	11.7 mg/m³	

dimethyl ether

Effect level (DNEL/DMEL)	Туре	Value	Remark
DNEL	Long-term systemic effects inhalation	1894 mg/m³	

DNEL - General population

tris(2-chloro-1-methylethyl) phosphate

Effect level (DNEL/DMEL)		Туре	Value	Remark
DNEL		Acute systemic effects dermal	0.264 mg/kg bw/day	
		Acute systemic effects inhalation	0.23 mg/m ³	
		Acute -systemic effects oral	0.33 mg/kg bw/day	
		L <mark>ong-term systemic effec</mark> ts dermal	0.264 mg/kg bw/day	
		L <mark>ong-term systemic effec</mark> ts inhalation	0.23 mg/m ³	
		L <mark>ong-term systemic effec</mark> ts oral	0.33 mg/kg bw/day	

triethyl phosphate

Effect level (DNEL/DMEL)	Туре	Value	Remark
DNEL	Acute systemic effects dermal	13.3 mg/kg bw/day	
	Acute systemic effects inhalation	23.12 mg/m³	
	Acute -systemic effects oral	13.3 mg/kg bw/day	
	Acute local effects dermal	13.3 mg/cm ²	
	Acute local effects inhalation	23.12 mg/m³	
	Long-term systemic effects dermal	1.66 mg/kg bw/day	
	Long-term systemic effects inhalation	2.89 mg/m³	
	Long-term systemic effects oral	1.66 mg/kg bw/day	
	Long-term local effects dermal	13.3 mg/cm ²	
	Long-term local effects inhalation	23.12 mg/m³	

dimethyl ether

Effect level (DNEL/DMEL)	Туре	Value	Remark
DNEL	Long-term systemic effects inhalation	471 mg/m³	

PNEC

triethyl phosphate

Compartments		Value			Remark	
Fresh water		<mark>0.632 m</mark> g/l				
STP		<mark>298.5 m</mark> g/l				

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dimethyl ether

Compartments	Value	Remark
Fresh water	<mark>0.155 m</mark> g/l	
Salt water	<mark>0.016 m</mark> g/l	
Aqua (intermittent rele <mark>ases)</mark>	<mark>1.549 mg</mark> /l	
Wastewater treatment plant	<mark>160 mg/l</mark>	
Fresh water sediment	<mark>0.681 mg</mark> /kg	
Marine water sediment	<mark>0.069 m</mark> g/kg	
Soil	<mark>0.045 m</mark> g/kg	

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 hygien<mark>e - avoid contact. Do not eat, drink or</mark> smoke during work.

a) Respiratory protection:

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

b) Hand protection:

Gloves.

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

- materials for protective clothing (good resistance)

LDPE (Low Density Poly Ethylene).

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:

Odour threshold No data available Colour Variable in colour, depending on the composition Particle size No data available Explosion limits No data available Explosion limits No data available Flammability Extremely flammable aerosol. Log Kow Not applicable (mixture) Dynamic viscosity No data available Kinematic viscosity No data available Melting point No data available Boiling point No data available Flash point Not applicable Evaporation rate No data available Vapour pressure No data available Relative vapour density 1.1 Solubility water; insoluble Relative density No data available Decomposition temperature No data available Auto-ignition temperature No data available Explosive properties No chemical group associated with explosive properties	Physical form		Aerosol
Colour Variable in colour, depending on the composition Particle size No data available Explosion limits No data available Flammability Extremely flammable aerosol. Log Kow Not applicable (mixture) Dynamic viscosity No data available Kinematic viscosity No data available Melting point No data available Boiling point No data available Flash point Not applicable Evaporation rate No data available Vapour pressure No data available Relative vapour density 1.1 Solubility water ; insoluble Relative density No data available Decomposition temperature No data available Auto-ignition temperature No data available Auto-ignition temperature No data available	Odour		<u>Characteristic</u> odour
Particle size No data available Explosion limits No data available Flammability Extremely flammable aerosol. Log Kow Not applicable (mixture) Dynamic viscosity No data available Kinematic viscosity No data available Melting point No data available Boiling point No data available Flash point Not applicable Evaporation rate No data available Evaporation rate No data available Relative vapour density 1.1 Solubility water ; insoluble Relative density No data available Decomposition temperature No data available Auto-ignition temperature No data available Auto-ignition temperature No data available	Odour threshold		No data available
Explosion limits No data available Flammability Extremely flammable aerosol. Log Kow Not applicable (mixture) Dynamic viscosity No data available Kinematic viscosity No data available Melting point No data available Boiling point No data available Flash point Not applicable Evaporation rate No data available Vapour pressure No data available Relative vapour density 1.1 Solubility water; insoluble Relative density No data available Decomposition temperature No data available Auto-ignition temperature No data available No data available	Colour		Variable in colour, depending on the composition
Flammability Extremely flammable aerosol. Log Kow Not applicable (mixture) Dynamic viscosity No data available Kinematic viscosity No data available Melting point No data available Boiling point Not applicable Evaporation rate Not applicable Evaporation rate No data available Vapour pressure No data available Relative vapour density 1.1 Solubility water; insoluble Relative density No data available Decomposition temperature No data available Auto-ignition temperature No data available No data available	Particle size		No data available
Log Kow Not applicable (mixture) Dynamic viscosity No data available Kinematic viscosity No data available Melting point No data available Boiling point No data available Flash point Not applicable Evaporation rate No data available Vapour pressure No data available Relative vapour density 1.1 Solubility water; insoluble Relative density No data available Decomposition temperature No data available Auto-ignition temperature No data available	Explosion limits		No data available
Dynamic viscosity No data available Kinematic viscosity No data available Melting point No data available Boiling point No data available Flash point No data available Evaporation rate No data available Vapour pressure No data available Relative vapour density 1.1 Solubility water ; insoluble Relative density No data available Decomposition temperature No data available Auto-ignition temperature No data available	Flammability		Extremely flammable aerosol.
Kinematic viscosity Melting point No data available Boiling point No data available Flash point Not applicable Evaporation rate No data available Vapour pressure No data available Relative vapour density 1.1 Solubility Relative density No data available Relative density No data available No data available Relative density No data available No data available No data available Auto-ignition temperature No data available	Log Kow		Not applicable (mixture)
Melting point No data available Boiling point No data available Flash point Not applicable Evaporation rate No data available Vapour pressure No data available Relative vapour density 1.1 Solubility water; insoluble Relative density No data available Decomposition temperature No data available Auto-ignition temperature No data available	Dynamic viscosity		No data available
Boiling point No data available Flash point Not applicable Evaporation rate No data available Vapour pressure No data available Relative vapour density 1.1 Solubility water ; insoluble Relative density No data available Decomposition temperature No data available Auto-ignition temperature No data available	Kinematic viscosity		<mark>No data availa</mark> ble
Flash point Not applicable Evaporation rate No data available Vapour pressure No data available Relative vapour density 1.1 Solubility water ; insoluble Relative density No data available Decomposition temperature No data available Auto-ignition temperature No data available	Melting point		No data available
Evaporation rate No data available Vapour pressure Relative vapour density 1.1 Solubility water; insoluble Relative density No data available Decomposition temperature No data available Auto-ignition temperature No data available	Boiling point		<mark>No data availa</mark> ble
Vapour pressure Relative vapour density 1.1 Solubility water ; insoluble Relative density No data available Decomposition temperature No data available Auto-ignition temperature No data available	Flash point		Not applicable
Relative vapour density 1.1 Solubility Relative density No data available Decomposition temperature No data available Auto-ignition temperature No data available	Evaporation rate		No data available
Solubility water; insoluble Relative density No data available Decomposition temperature No data available Auto-ignition temperature No data available	Vapour pressure		<mark>No data availa</mark> ble
Relative density No data available Decomposition temperature No data available Auto-ignition temperature No data available	Relative vapour density		1.1
Decomposition temperat <mark>ure No data availa</mark> ble Auto-ignition temperature No data available	Solubility		<mark>water ; insolu</mark> ble
Auto-ignition temperature No data available	Relative density		No data available
	Decomposition temperat	ure	<mark>No data availa</mark> ble
Explosive properties No chemical group associated with explosive properties	Auto-ignition temperatur	е	No data available
	Explosive properties		No chemical group associated with explosive properties

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Oxidising properties	No chemical group associate	d with oxidising properties
рН	No data available	

Physical hazards

No physical hazard class

9.2 Other information:

Surface tension	No data availab	ole
Absolute density	No data availab	ole

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:

No data available.

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:

No data available.

10.6 Hazardous decomposition products:

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, phosphorus oxides, hydrogen bromide, hydrogen chloride, hydrofluoric acid) (carbon monoxide - carbon dioxide).

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

11.1.1 Test results

Acute toxicity

Soudafoam FR

No (test)data on the mixture available

halogenated polyetherpolyol M 125

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination
Oral	LD50		<2000 mg/kg bw			Literature study

tris(2-chloro-1-methylethyl) phosphate

	Parameter	Method	Value	Exposure time	Species		Value
exposure							determination
Oral	LD50	Equivalent to OECD	1011-1824 mg/kg		Rat	Male/female	Experimental value
		401	bw				·
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rabbit	Male/female	Experimental value
Inhalation (aerosol)	LC50	Equivalent to OECD 403	> 5 mg/l air	4 h	Rat	Male/female	Weight of evidence

triethyl phosphate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Oral	LD50		1165 mg/kg		Rat		Literature study
Inhalation (aerosol)	LC50	OECD 403	>8.817 mg/l air	4 h	Rat	Male/female	Experimental value

polymethylene polyphenyl isocyanate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Oral	LD50		> 10000 mg/kg		Rat		Literature study
Dermal	LD50		> 5000 mg/kg		Rabbit		Literature study
Inhalation (vapours)	LD50		10-20 mg/l	4 h	4		Literature study

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1	1-difl	uoroethane

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination
Inhalation	LC50		176 mg/l	4 h	Rat	Literature study
Inhalation	LC50		<mark>64000 p</mark> pm	4 h	Rat	Literature study

<u>isobutane</u>

	Parameter	Method	Value	Exposure time	Species	Value
exposure						determination
Inhalation	LC50		> 50 mg/l	4 h	Rat	Literature study

dimethyl ether

Route of exposure	Parameter	Method	Value	Exposure time	Species	Gender	Value determination
Oral							Not relevant, expert judgement
Dermal							Not relevant, expert judgement
Inhalation	LC50		309 mg/l	4 h	Rat		Literature study
Inhalation	LC50		163991 ppm	4 h	Rat		Literature study

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

Conclusion

Harmful if inhaled.

Low acute toxicity by the dermal route

Low acute toxicity by the oral route

Corrosion/irritation

Soudafoam FR

No (test)data on the mixture available

tris(2-chloro-1-methylethyl) phosphate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination
Eye		Equivalent to OECD 405	72 h	24; 48; 72 hours	Rabbit	Experimental value
Skin	Not irritating	OECD 404	4 h		Rabbit	Experimental value

triethyl phosphate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination
Eye	Slight <mark>ly irritating</mark>	OECD 405	24 h		Rabbit	Experimental value
Skin	Not irritating	OECD 404	4 h	1; 24; 48; 72; 168 hours	Rabbit	Experimental value

polymethylene polyphenyl isocyanate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination
Eye	Irritating					Literature study
Skin	Irritat <mark>ing</mark>					Literature study
Inhalation	Irritating					Literature study

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

Conclusion

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

Specific target organ toxicity, single exposure: classified as irritant to respiratory organs

Respiratory or skin sensitisation

Soudafoam FR

No (test)data on the mixture available

tris(2-chloro-1-methylethyl) phosphate

Route of exposure	Result	Method	Observation time point	Species	Value determination
Skin	Not sensitizing	OECD 429		Mouse	Experimental value

triethyl phosphate

Ī	Route of exposure	Result	Method	 Observation time point	Species		Value determination
,	Skin	Not sensitizing	OECD 429		Mouse	Female	Experimental value

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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

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 FR

No (test)data on the mixture available

tris(2-chloro-1-methylethyl) phosphate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	 Value determination
Oral	LOAEL	Equivalent to OECD 408	800 ppm	Liver	Weight gain	13 weeks (daily)	Rat	 Experimental value
Oral	NOAEL	Equivalent to OECD 408	2500 ppm		No effect	13 weeks (daily)	Rat	Experimental value

triethyl phosphate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	 Value determination
Oral	NOAEL		1000 mg/kg bw/day		No effect	4 weeks (daily)	Rat	Experimental value

polymethylene polyphenyl isocyanate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	 Value determination
Inhalation			STOT RE cat.2					Literature study

dimethyl ether

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	 Value determination
Inhalation	NOAEC	Equivalent to OECD 452	47106 mg/m ³			2 year(s) (6h/day, 5 days/week)	Rat	Literature study

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

Conclusion

May cause respiratory irritation.

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

Mutagenicity (in vitro)

Soudafoam FR

No (test)data on the mixture available

tris(2-chloro-1-methylethyl) phosphate

Result	Method	Test substrate	Effect	Value determination
Negative		Chinese hamster lung fibroblasts	No effect	Weight of evidence
Negative	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Weight of evidence
Negative	·	Mouse (lymphoma L5178Y cells)	No effect	Weight of evidence

triethyl phosphate

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic	OECD 476	Chinese hamster lung	No effect	Experimental value
activation, negative without		fibroblasts		
metabolic activation				
Negative with metabolic	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value
activation, negative without				
metabolic activation				

dimethyl ether

Result	Method	Test substrate	Effect	Value determination
Negative	Ames test			Literature study
Negative	OECD 473			Literature study

Mutagenicity (in vivo)

Soudafoam FR

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No (test)data on the mixture available

tris(2-chloro-1-methylethyl) phosphate

Result	Method	Exposure time	Test substrate	Gender	Organ	Value determination
Negative	Equivalent to OECD		Rat	Male		Weight of evidence
	475					

Carcinogenicity

Soudafoam FR

No (test)data on the mixture available

polymethylene polyphenyl isocyanate

Route of exposure	Parameter	Method	Value	Exposure time	Species	 Value determination	Organ	Effect
Inhalation (aerosol)			STOT RE cat.2		Rat	Literature study		Neoplastic effects

Reproductive toxicity

Soudafoam FR

No (test)data on the mixture available

tris(2-chloro-1-methylethyl) phosphate

	Parameter	Method		Exposure time	Species	Gender	Effect	- 3	Value determination
Developmental toxicity	Loael (P)	OECD 416	3. 3	>10 weeks (daily)	Rat		Body weight, organ weight, food consumption		Experimental value
	Noael (P)	OECD 416	3 3	>10 weeks (daily)	Rat	Male	No effect		Experimental value
	NOAEL	Equivalent to OECD 414	1000 mg/kg bw	70 day(s)	Rat	Female	No effect		Experimental value

triethyl phosphate

	Parameter	Method	7 7 7	Exposure time	Species	Gender	Effect	- 3	Value determination
Developmental toxicity	Noael (P)		125 mg/kg bw/day		Rat		Maternal toxicity		Experimental value
	Noael (F1)		625 mg/kg bw/day		Rat	Male/female	Embryotoxicit y		Experimental value

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

Conclusion CMR

Suspected of causing cancer.

Not classified for reprotoxic or developmental toxicity

Not classified for mutagenic or genotoxic toxicity

Toxicity other effects

Soudafoam FR

No (test)data on the mixture available

Chronic effects from short and long-term exposure

Soudafoam FR

ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Feeling of weakness. Itching. Skin rash/inflammation. May stain the skin. Dry skin. Coughing. Possible inflammation of the respiratory tract. Respiratory difficulties.

11.1.2 Other information

Soudafoam FR

CLP carc cat category 2			

polymethylene polyphenyl isocyanate

EC carc cat	3
CLP carc cat	category 2
IARC - classification	3 (Polymethylene polyphenyl isocyanate)
MAK - Krebserzeugend Kategorie	4

SECTION 12: Ecological information

Reason for revision: CLP	Publication date: 2008-11-18
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12.1 Toxicity:

Soudafoam FR

No (test)data on the mixture available

tris(2-chloro-1-methylethyl) phosphate

	Parameter	Method	Value	Duration	Species		Fresh/salt water	Value determination
Acute toxicity fishes	LC50		56.2 mg/l	96 h	Brachydanio rerio	Static system	Fresh water	Experimental value; GLP
		OECD 202	<mark>65 -</mark> 335 mg/l	48 h	Daphnia magna			Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	OECD 201	73 mg/l	_	Selenastrum capricornutum			Experimental value; Growth rate

triethyl phosphate

	Parameter	Method	Value	Duration	Species		Fresh/salt water	Value determination
Acute toxicity fishes		Equivalent to OECD 203	> 100 mg/l	96 h	Danio rerio			Experimental value; Nominal concentration
Acute toxicity invertebrates	EC50	OECD 202	<mark>270</mark> 5 mg/l	24 h	Daphnia magna			Experimental value; Nominal concentration
Toxicity algae and other aq <mark>uatic</mark> plants	EC50	Other	901 mg/l		Scenedesmus subspicatus	Static system		Experimental value; Nominal concentration
Long-term toxicity aquatic invertebrates		Equivalent to OECD 211	31.6 mg/l	21 day(s)	Daphnia magna			Experimental value; Reproduction

polymethylene polyphenyl isocyanate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt	Value determination
							water	
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

dimethyl ether

	Parameter	Method	Value	Duration	Species			Value determination
	LC50	Other	> <mark>4</mark> 100 mg/l	96 h	Poecilia reticulata	Semi-static	Fresh water	Experimental value
	EC50	Other	> 4400 mg/l	48 h	Daphnia magna			Experimental value
ıatic	EC0	ECOSAR v1.00	154.9 mg/l	96 h	Algae			QSAR
	LC50		> 4400 mg/l	48 h	Daphnia magna			Experimental value
	EC10		> <mark>1</mark> 600 mg/l			Static system	Fresh water	Literature study
	uatic	LC50 EC50 Partic EC0	LC50 Other EC50 Other attic EC0 ECOSAR v1.00 LC50	LC50 Other > 4100 mg/l	LC50 Other > 4100 mg/l 96 h EC50 Other > 4400 mg/l 48 h LC50 ECOSAR v1.00 154.9 mg/l 96 h LC50 > 4400 mg/l 48 h EC10 > 1600 mg/l	LC50	LC50	LC50

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

Conclusion

No data available on ecotoxicity

12.2 Persistence and degradability:

tris(2-chloro-1-methylethyl) phosphate

Biodegradation water

Method	Value	Duration	Value determination
OECD 301E: Modified OECD Screening Test	14 %	28 day(s)	Experimental value
OECD 301C: Modified MITI Test (I)	0 %	28 day(s)	Experimental value

triethyl phosphate
Biodegradation water

Method	Value	Duration	Value determination
	0 %	28 day(s)	Experimental value

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				Soudafo	aiii FK		
olymethylene poly	phenyl isocyan	ate_					
Biodegradation v	vater						
Method	and Diaglaces	J. J. 1114	Value		Duration		Value determination
OECD 302C: Inh Modified MITI 1		dability:	< 60 %				Experimental value
,1-difluoroethane	est (II)				'		_
Half-life soil (t1/2	! soil)						
Method	,		Value		Primary		Value determination
					degradation/mineral	sation	
Not applicable							
obutane							
Biodegradation v	vater				b ::		h
Method			Value 72.6 %		Duration		Value determination
Half-life soil (t1/2	(lical)		/2.0 %		35 day(s)		Literature study
Method	. suii)		Value		Primary		Value determination
iviculou			Value		degradation/mineral	sation	value determination
Not applicable							
imethyl ether							
Biodegradation v	vater						
Method			Value		Duration		Value determination
OECD 301D: Clo			5 %		28 day(s)		Experimental value
Half-life soil (t1/2	! soil)				4		.
Method			Value		Primary degradation/mineral	ication	Value determination
Not applicable ((asc)				uegrauation/mineral	Sation	
3 Bioaccumul g Kow Method		tial:		Value	Temperature		Value determination
J Kow	Ren	nark	ole (mixture)	Value	Temperature		Value determination
y Kow /lethod alogenated polyet	Ren Not	nark applicat	ole (mixture)	Value	Temperature		Value determination
J Kow Method alogenated polyet Log Kow	Ren Not herpolyol M 12	nark applicab				liro.	
y Kow /lethod alogenated polyet	Ren Not herpolyol M 12	nark applicab 5 Remark		Value	Temperature Temperature	ıre	Value determination Value determination
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J Kow Method alogenated polyet Log Kow Method	Ren Not herpolyol M 12	nark applicat 5 Remark No data hate				ire	
Alogenated polyet Log Kow Method Method is(2-chloro-1-method) BCF fishes	Ren Not herpolyol M 12	nark applicat 5 Remark No data hate	available	Value	Temperatu	ire	Value determination
A Kow Alogenated polyet Log Kow Method is(2-chloro-1-methes) BCF fishes Parameter BCF Log Kow	Ren Not herpolyol M 12	nark applicat 5 Remark No data hate	available Value	Value Duration	Species Cyprinus carpio		Value determination Value determination Experimental value
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alogenated polyet Log Kow Method is(2-chloro-1-met) BCF fishes Parameter BCF Log Kow Method iethyl phosphate BCF fishes Parameter	Ren Not Not herpolyol M 12: hylethyl) phosp! Method Method OECD 305	nark applicate 5 Remark No data hate Remark	available Value 0.8 - 4.6 Value 0.5 - < 1.3	Value Duration Value 2.59 Duration	Species Cyprinus carpio Temperatu	ire	Value determination Value determination Experimental value Value determination Experimental value Value determination
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J Kow Jethod alogenated polyet Log Kow Method is(2-chloro-1-metl BCF fishes Parameter BCF Log Kow Method iethyl phosphate BCF fishes Parameter BCF Log Kow Method EU Method EU Method A.8 olymethylene poly BCF fishes Parameter BCF Log Kow Method EU Method A.8 olymethylene poly BCF fishes Parameter BCF BCF Log Kow	Ren Not Not herpolyol M 12. hylethyl) phospl Method OECD 305 //phenyl isocyan.	Remark Remark Remark Remark Remark Remark	Value 0.5 - < 1.3 Value 1	Value Duration Value 2.59 Duration 6 week(s) Value 1.11 Duration	Species Cyprinus carpio Temperatu Species Cyprinus carpio Temperatu Species Pisces Temperatu	ire	Value determination Value determination Experimental value

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1,1-difluoroethane

Log Kow

Method	Remark	Value	Temperature	Value determination
		<mark>0.</mark> 75		Experimental value

isobutane

BCF fishes

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

BCF other aquatic organisms

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

Log Kow

Method	Remark	Value	Temperature	Value determination
		<mark>2.</mark> 76 - 2.88		Experimental value

dimethyl ether

Log Kow

1	Method	Remark	Value	Temperature	Value determination
			<mark>0.</mark> 10		Experimental value

Conclusion

No straightforward conclusion can be drawn based upon the available numerical values

12.4 Mobility in soil:

dimethyl ether

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
518.6 Pa.m³/mol				Literature study

Conclusion

No (test)data on mobility of the components of 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 FR

Global warming potential (GWP)

Contains component(s) included in the list of substances which may contribute to the greenhouse effect (Regulation (EC) No 842/2006)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No. 1272/2008 and 1005/2009)

1,1-difluoroethane

Global warming potential (GWP)

Fluorinated greenhouse gases	Lifetime	Radiative efficiency	 (0)	GWP 500-yr time horizon
HFC-152a			120	

Included in the list of substances which may contribute to the greenhouse effect (Regulation (EC) No 842/2006)

SECTION 13: Disposal considerations

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

13.1 Waste treatment methods:

13.1.1 Provisions relating to waste

Waste material code (Directive 2008/98/EC, decision 2000/0532/EC).

08 04 09* (waste adh<mark>esives and sealants containing organic</mark> 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

Refer to manufacturer/supplier for information on recovery/ recycling. 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. Do not discharge into drains or the environment.

13.1.3 Packaging/Container

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

15 01 10* (packaging containing residues of or contaminated by dangerous substances).

ION 14: Transport information	
ad (ADR)	
14.1 UN number:	
UN number	1950
14.2 UN proper shipping name:	
Proper shipping name	Aerosols
14.3 Transport hazard class(es):	
Hazard identification number	
Class	2
Classification code	5F
14.4 Packing group:	
Packing group	
Labels	2.1
14.5 Environmental hazards:	1
Environmentally hazardous substance mark	no
14.6 Special precautions for user:	190
Special provisions Special provisions	327
Special provisions Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for
Emilion quantitios	liquids. A package shall not weigh more than 30 kg. (gross mass)
II (DID)	
il (RID) 14.1 UN number:	
UN number	1950
14.2 UN proper shipping name:	1730
Proper shipping name	Aerosols
14.3 Transport hazard class(es):	PCI 03013
Hazard identification number	23
Class	2
Classification code	5F
14.4 Packing group:	
Packing group	
Labels	2.1
14.5 Environmental hazards:	
Environmentally hazard <mark>ous substance mark</mark>	no
14.6 Special precautions fo <mark>r user:</mark>	
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)
and waterway (ADAN)	[1
and waterways (ADN)	
14.1 UN number: UN number	1950
	[1900
14.2 UN proper shipping name: Proper shipping name	Aerosols
Proper snipping name 14.3 Transport hazard class(es):	AEI USUIS
14.3 Transport nazard class(es): Class	2
Classification code	5F
14.4 Packing group:	p.
Packing group	
Labels	2.1
14.5 Environmental hazards:	
Environmentally hazardous substance mark	no
14.6 Special precautions for user:	

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Special provisions Special provisions		
Special provisions		190
		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)
ea (IMDG) 14.1 UN number:		
UN number		1950
14.2 UN proper shipping na	ame:	
Proper shipping name		Aerosols
14.3 Transport hazard class	s(es).	1.01.55500
Class	(03).	2.1
14.4 Packing group:		
Packing group		
Labels		2.1
14.5 Environmental hazard	c·	Z. 1
Marine pollutant	3.	
Environmentally hazard	dous substance mark	700
14.6 Special precautions for		no
Special provisions	ruser:	63
		190
Special provisions		
Special provisions		277
Special provisions		327
Special provisions		344
Special provisions		959
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)
	rding to Annex II of MARPOL 73/78 and t	
Annex II of MARPOL 73.	/78	Not applicable, based on available data
r (ICAO-TI/IATA-DGR) 14.1 UN number:		
UN number		1950
14.2 UN proper shipping na	ame:	
Proper shipping name		Aerosols, flammable
14.3 Transport hazard class	s(es):	
Class		2.1
14.4 Packing group:		
Packing group		
Labels		2.1
14.5 Environmental hazard	S:	
Environmentally hazard		no
14.6 Special precautions for		
Special provisions		A145
Special provisions		A167
Special provisions		A802
	ansport: limited quantities: maximum ne	

SECTION 15: Regulatory information

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

European legislation:

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of 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.

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		_			
	tris(2-chloro-1-methylethyl) phos	ohate	Liquid substances or mixtures, wh	ich are	1. Shall not be used in: — ornamental articles intended to produce light or colour effects by
	triethyl phosphate		regarded as dangerous according	to the	means of different phases, for example in ornamental lamps and ashtrays, — tricks and
	polymethylene polyphenyl isocya	nate	definitions in Council Directive 67	/548/EEC and	jokes, — games for one or more participants, or any article intended to be used as such, even
			Directive 1999/54/EC.		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
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			Soi	udafo	oam FR		
- 1,1-difluoroe - isobutane - dimethyl eth		in Directive 67 flammable, hi flammable reg in Part 3 of An 1272/2008 or	7/548/ EEC and clas ghly flammable or e gardless of whether nex VI to Regulatio	sified as extremely they appear n (EC) No	placed on the marke (EN 14059) adopted prejudice to the imp packaging and labell the placing on the m with R65 or H304, in marked as follows: "December 2010, "Ju life- threatening lung supply to the genera" Just a sip of grill ligh lighters, labelled with black opaque contain 2014, the Commissic accordance with Artilighter fluids and fue general public. 7. Nat grill lighter fluids and fue general public. 7. Nat grill lighter fluids and fue general public. 8. Author of the competition of the contains of the contains of the contains protective of the competition of the competition of the competition of the competition of the contains protective of the competition of the contains protective of the competition	at unless they conform to by the European Commit lementation of other Coing of dangerous substar arket, that the following tended for supply to the Keep lamps filled with the state of the European for the Mental for the European for the Europea	mps for supply to the general public shall not be the European Standard on Decorative oil lamp titee for Standardisation (CEN).5. Without mmunity provisions relating to the classification ces and mixtures, suppliers shall ensure, before requirements are met: a) lamp oils, labelled general public are visibly, legibly and indelibly is liquid out of the reach of children"; and, by 1 even sucking the wick of lamps — may lead to or fluids, labelled with R65 or H304, intended for delibly marked by 1 December 2010 as follows attening lung damage"; c) lamp oils and grill for supply to the general public are packaged in a by 1 December 2010.6. No later than 1 June pean Chemicals Agency to prepare a dossier, in gulation with a view to ban, if appropriate, grill belled R65 or H304, intended for supply to the cing on the market for the first time lamp oils at shall by 1 December 2011, and annually mp oils and grill lighter fluids labelled R65 or ober State concerned. Member States shall makers in aerosol dispensers where these aerosol heral public for entertainment and decorative litter intended mainly for decoration, — artificial cobwebs, — stink bombs.2. Community provisions on the classification, ers shall ensure before the placing on the marker of to above is marked visibly, legibly and 3. By way of derogation, paragraphs 1 and 2 shall not be placed on tents indicated. December 2010, as a constituent of mixtures in a by weight of MDI for supply to the general he placing on the marker that the packaging: (a in the requirements of Council Directive 75/o in paragraphs 1 and 2 shall not be placed on tents indicated. December 2010, as a constituent of mixtures in the requirements of Council Directive 75/o in paragraphs 1 and 2 shall not be placed on tents indicated. December 2010, as a constituent of mixtures in the requirements of Council Directive 75/o in paragraphs 1 and 2 shall not be placed on tents indicated. December 2010, as a constituent of mixtures in the requirements of Council Directive 75/o in paragraphs 1
						r (i.e. type A1 according to oh 1(a) shall not apply to	to standard EN 14387) is used."2. By way of hot melt adhesives.
	latile organic comp 23 %	oounds (VOC)					
	onal legislation						
- The	Netherlands						
	Waterbezwaarlijk			8			
0		ion (the Netherlands)		LWCA (the I	Netherlands): KGA	category 06	
- Ger	many					01 15 11	
	WGK					in compliance wassergefähr (Anhang 4)	water polluting based on the component with Verwaltungsvorschrift dender Stoffe (VwVwS) of 27 July 2005
	TA-Luft			triethyl pho		TA-Luft Klasse	
	TA-Luft			1,1-difluoroethane		TA-Luft Klasse 5.2.5	
	TA-Luft			isobutane		TA-Luft Klasse	
	TA-Luft			dimethyl et	her	TA-Luft Klasse	2 5.2.5
	MAN (Cormony)						
	MAK (Germany) Dimethylether		Time-weighte	d average ex	posure limit 8 h	1000 ppm	
	Dirictiyictici		Time weighte	a average on	posare in int o ir	1900 mg/m³	
		(einatembare Fraktion				0.05 mg/m³ (E)	E: gemessen als einatembare Fraktion (vgl. Abschn. Vd) S. 191)
	Butan (beide Ison	neren)	Time-weighte	d average ex	posure limit 8 h	1000 ppm 2400 mg/m ³	
	mical safety as nemical safety asso	sessment: essment has been cond	ducted.				
CTION 1	16: Other i	nformation					
		referred to under head	dings 2 and 3.				
		cicirca to unuci neat	aniya z anu a.	- 1		Dublication det 0	000 11 10
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R20 Harmful by inhalation

R22 Harmful if swallowed

R36/37/38 Irritating to eyes, respiratory system and skin

R40 Limited evidence of a carcinogenic effect

R42/43 May cause sensitisation by inhalation and skin contact

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

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

H220 Extremely flammable gas.

H222 Extremely flammable aerosol.

H280 Contains gas under pressure; may explode if heated.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

(*) = 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)

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 and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

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