

Soudafoam FR Gun

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

1.1 Product identifier:

Product name : Soudafoam FR Gun
 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

SODAL N.V.
 Everdongenlaan 18-20
 B-2300 Turnhout
 ☎ +32 14 42 42 31
 ☐ +32 14 42 65 14
 msds@soudal.com

Manufacturer of the product

SODAL N.V.
 Everdongenlaan 18-20
 B-2300 Turnhout
 ☎ +32 14 42 42 31
 ☐ +32 14 42 65 14
 msds@soudal.com

1.4 Emergency telephone number:

24h/24h (Telephone advice: English, French, German, Dutch):
 +32 14 58 45 45 (BIG)

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
Aerosol	category 1	H222: Extremely flammable aerosol.
Aerosol	category 1	H229: Pressurised container: May burst if heated.
Carc.	category 2	H351: Suspected of causing cancer.
Acute Tox.	category 4	H332: Harmful if inhaled.
STOT RE	category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Eye Irrit.	category 2	H319: Causes serious eye irritation.
STOT SE	category 3	H335: May cause respiratory irritation.
Skin Irrit.	category 2	H315: Causes skin irritation.
Resp. Sens.	category 1	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens.	category 1	H317: May cause an allergic skin reaction.

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

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

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.

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

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2.2 Label elements:

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

Drawn up according to the criteria of Regulation (EU) No 487/2013, 4th adaptation of Regulation (EC) No 1272/2008



Contains: 2,2-bis(bromomethyl)propane-1,3-diol; polymethylene polyphenyl isocyanate.

Signal word

Danger

H-statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H351	Suspected of causing cancer.
H332	Harmful 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.

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, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122°F.
P501	Dispose of contents/container in accordance with local/regional/national/international regulation.

Supplemental information

- Persons already sensitised to diisocyanates may develop allergic reactions when using this product.
- Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.
- This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

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

Labels



Extremely flammable



Harmful

Contains: 2,2-bis(bromomethyl)propane-1,3-diol; polymethylene polyphenyl isocyanate.

R-phrases

20	Harmful by inhalation
36/37/38	Irritating to eyes, respiratory system and skin
40	Limited evidence of a carcinogenic effect
42/43	May cause sensitisation by inhalation and skin contact
48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation

S-phrases

02	Keep out of the reach of children
16	Keep away from sources of ignition - No smoking
23	Do not breathe spray
36/37	Wear suitable protective clothing and gloves
45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
51	Use only in well-ventilated areas
(63)	(In case of accident by inhalation: remove casualty to fresh air and keep at rest)

Additional recommendations

- Pressurised 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
- Prolonged exposure: danger of serious damage to health
- Contains component(s) included in the list of fluorinated greenhouse gases (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
- Prolonged exposure: danger of serious damage to health
- Contains component(s) included in the list of fluorinated greenhouse gases (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
2,2-bis(bromomethyl)propane-1,3-diol	3296-90-0 221-967-7	1%<C<5%	Carc. Cat. 3; R40	Carc. 2; H351	(1)	Constituent
tris(2-chloro-1-methylethyl) phosphate 01-2119447716-31	13674-84-5 237-158-7	1%<C<25%	Xn; R22	Acute Tox. 4; H302	(1)(10)	Constituent
triethyl phosphate 01-2119492852-28	78-40-0 201-114-5	1%<C<25%	Xn; R22	Acute Tox. 4; H302 Eye Irrit. 2; H319	(1)(10)	Constituent
bis(2-ethylhexyl) tetrabromophthalate	26040-51-7 247-426-5	1%<C<20%	Xi; R36 N; R50	Eye Irrit. 2; H319 Aquatic Acute 1; H400	(1)(10)	Constituent
polymethylene polyphenyl isocyanate	9016-87-9	C>25 %	Carc. Cat. 3; R40 Xn; R20 - 48/20 Xi; R36/37/38 R42/43	Carc. 2; H351 Acute Tox. 4; H332 STOT RE 2; H373 Eye Irrit. 2; H319 STOT SE 3; H335 Skin Irrit. 2; H315 Resp. Sens. 1; H334 Skin Sens. 1; H317	(1)(2)(10)	Constituent
ethanediol 01-2119456816-28	107-21-1 203-473-3	1%<C<25%	Xn; R22	Acute Tox. 4; H302 STOT RE 2; H373	(1)(2)(10)	Constituent
1,1-difluoroethane 01-2119474440-43	75-37-6 200-866-1	1%<C<10%	F+; R12	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(10)	Propellant
propane 01-21194853944-21	74-98-6 200-827-9	1%<C<10%	F+; R12	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant
isobutane 01-2119485395-27	75-28-5 200-857-2	1%<C<10%	F+; R12	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant
dimethyl ether 01-2119472128-37	115-10-6 204-065-8	1%<C<10%	F+; R12	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant
(1,3-butadiene, conc<0.1%)						

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

(2) Substance with a Community workplace exposure limit

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

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SECTION 4: First aid measures

4.1 Description of first aid measures:

General:

If you feel unwell, seek medical advice.

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 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 lung oedema. Respiratory difficulties.

After skin contact:

Tingling/irritation of the skin.

After eye contact:

Irritation of the eye tissue. Lacrimation.

After ingestion:

No effects known.

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: persistent risk of physical explosion. Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water.

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 explosionproof appliances and lighting equipment.

6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

6.1.2 Protective equipment for emergency responders

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

Suitable protective clothing

See heading 8.2

6.2 Environmental precautions:

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

6.3 Methods and material for containment and cleaning up:

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Allow product to solidify and remove it by mechanical means. Scoop solid spill into closing containers. 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

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	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	496 ppm	
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	950 mg/m ³	
	Short time value (Public occupational exposure limit value)	783 ppm	
	Short time value (Public occupational exposure limit value)	1500 mg/m ³	
Ethaan-1,2-diol (damp)	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	20 ppm	damp
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	52 mg/m ³	damp
	Short time value (Public occupational exposure limit value)	40 ppm	damp
	Short time value (Public occupational exposure limit value)	104 mg/m ³	damp
Ethaan-1,2-diol (druppels)	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	3.9 ppm	druppels
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	10 mg/m ³	druppels

EU

Dimethylether	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	1000 ppm	
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	1920 mg/m ³	
Ethylene glycol	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	20 ppm	
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	52 mg/m ³	

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Ethylene glycol	Short time value (Indicative occupational exposure limit value)	40 ppm	
	Short time value (Indicative occupational exposure limit value)	104 mg/m ³	

Belgium

Ethylène glycol (en aérosol)	Time-weighted average exposure limit 8 h	20 ppm (M)	La mention "M" indique que lors d'une exposition supérieure à la valeur limite, des irritations apparaissent ou un danger d'intoxication aiguë existe. Le procédé de travail doit être conçu de telle façon que l'exposition ne dépasse jamais la valeur limite. Lors des mesurages, la période d'échantillonnage doit être aussi courte que possible afin de pouvoir effectuer des mesurages fiables. Le résultat des mesurages est calculé en fonction de la période d'échantillonnage.
	Time-weighted average exposure limit 8 h	52 mg/m ³ (M)	La mention "M" indique que lors d'une exposition supérieure à la valeur limite, des irritations apparaissent ou un danger d'intoxication aiguë existe. Le procédé de travail doit être conçu de telle façon que l'exposition ne dépasse jamais la valeur limite. Lors des mesurages, la période d'échantillonnage doit être aussi courte que possible afin de pouvoir effectuer des mesurages fiables. Le résultat des mesurages est calculé en fonction de la période d'échantillonnage.
	Short time value	40 ppm (M)	La mention "M" indique que lors d'une exposition supérieure à la valeur limite, des irritations apparaissent ou un danger d'intoxication aiguë existe. Le procédé de travail doit être conçu de telle façon que l'exposition ne dépasse jamais la valeur limite. Lors des mesurages, la période d'échantillonnage doit être aussi courte que possible afin de pouvoir effectuer des mesurages fiables. Le résultat des mesurages est calculé en fonction de la période d'échantillonnage.
	Short time value	104 mg/m ³ (M)	La mention "M" indique que lors d'une exposition supérieure à la valeur limite, des irritations apparaissent ou un danger d'intoxication aiguë existe. Le procédé de travail doit être conçu de telle façon que l'exposition ne dépasse jamais la valeur limite. Lors des mesurages, la période d'échantillonnage doit être aussi courte que possible afin de pouvoir effectuer des mesurages fiables. Le résultat des mesurages est calculé en fonction de la période d'échantillonnage.
Hydrocarbures aliphatiques sous forme gazeuse : (Alcanes C1-C4)	Time-weighted average exposure limit 8 h	1000 ppm	
Oxyde de diméthyle	Time-weighted average exposure limit 8 h	1000 ppm	
	Time-weighted average exposure limit 8 h	1920 mg/m ³	

USA (TLV-ACGIH)

Butane, all isomers	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	1000 ppm	
Ethylene glycol	Momentary value (TLV - Adopted Value)	100 mg/m ³ (H)	Aerosol only

Germany

Dimethylether	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm	
	Time-weighted average exposure limit 8 h (TRGS 900)	1900 mg/m ³	

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Ethandiol	Time-weighted average exposure limit 8 h (TRGS 900)	10 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	26 mg/m ³
Isobutan	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	2400 mg/m ³
pMDI (als MDI berechnet)	Time-weighted average exposure limit 8 h (TRGS 900)	0.05 mg/m ³
Propan	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	1800 mg/m ³

France

Ethylèneglycol (vapeur)	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	20 ppm
	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	52 mg/m ³
	Short time value (VRI: Valeur réglementaire indicative)	40 ppm
	Short time value (VRI: Valeur réglementaire indicative)	104 mg/m ³
Oxyde de diméthyle	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	1000 ppm
	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	1920 mg/m ³

UK

Dimethyl ether	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	400 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	766 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	500 ppm
	Short time value (Workplace exposure limit (EH40/2005))	958 mg/m ³
Ethane-1,2-diol particulate	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m ³
Ethane-1,2-diol vapour	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	20 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	52 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	40 ppm
	Short time value (Workplace exposure limit (EH40/2005))	104 mg/m ³
Isocyanates, all (as -NCO) Except methyl isocyanate	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	0.02 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	0.07 mg/m ³

b) National biological limit values

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

8.1.2 Sampling methods

If applicable and available it will be listed below.

1,2-ethanediol	NIOSH	5500
Ethylene Glycol	NIOSH	5523
Ethylene Glycol	OSHA	2024
Isocyanates	NIOSH	5521
Isocyanates	NIOSH	5522

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

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tris(2-chloro-1-methylethyl) phosphate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute systemic effects dermal	0.528 mg/kg bw/day	
	Acute systemic effects inhalation	0.93 mg/m ³	
	Long-term systemic effects dermal	0.528 mg/kg bw/day	
	Long-term systemic effects inhalation	0.93 mg/m ³	

triethyl phosphate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute systemic effects dermal	26.6 mg/kg bw/day	
	Acute systemic effects inhalation	93.6 mg/m ³	
	Acute local effects dermal	26.6 mg/cm ²	
	Acute local effects inhalation	93.6 mg/m ³	
	Long-term systemic effects dermal	3.33 mg/kg bw/day	
	Long-term systemic effects inhalation	11.7 mg/m ³	
	Long-term local effects dermal	3.33 mg/cm ²	
	Long-term local effects inhalation	11.7 mg/m ³	

ethanediol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects dermal	106 mg/kg bw/day	
	Long-term local effects inhalation	35 mg/m ³	

DNEL - General population

tris(2-chloro-1-methylethyl) phosphate

Effect level (DNEL/DMEL)	Type	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	
	Long-term systemic effects dermal	0.264 mg/kg bw/day	
	Long-term systemic effects inhalation	0.23 mg/m ³	
	Long-term systemic effects oral	0.33 mg/kg bw/day	

triethyl phosphate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute systemic effects dermal	13.3 mg/kg bw/day	
	Acute systemic effects inhalation	23.12 mg/m ³	
	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/m ³	
	Long-term systemic effects dermal	1.66 mg/kg bw/day	
	Long-term systemic effects inhalation	2.89 mg/m ³	
	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/m ³	

ethanediol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects dermal	53 mg/kg bw/day	
	Long-term local effects inhalation	7 mg/m ³	

PNEC

triethyl phosphate

Compartments	Value	Remark
Fresh water	0.632 mg/l	
STP	298.5 mg/l	

ethanediol

Compartments	Value	Remark
Fresh water	10 mg/l	
Marine water	1 mg/l	
Aqua (intermittent releases)	10 mg/l	
Fresh water sediment	20.9 mg/kg sediment dw	
Soil	1.53 mg/kg soil dw	
STP	199.5 mg/l	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2 Exposure controls:

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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.

8.2.1 Appropriate engineering controls

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

8.2.2 Individual protection measures, such as personal protective equipment

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

a) Respiratory protection:

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

b) Hand protection:

Gloves.

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

- materials (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:

Physical form	Aerosol
Odour	Characteristic odour
Odour threshold	No data available
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	No data available
Evaporation rate	No data available
Relative vapour density	1.1
Vapour pressure	No data available
Solubility	water ; insoluble
Relative density	1.1 ; 20 °C
Decomposition temperature	No data available
Auto-ignition temperature	No data available
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

9.2 Other information:

Absolute density	1100 kg/m ³ ; 20 °C
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SECTION 10: Stability and reactivity

10.1 Reactivity:

May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard. No data available.

10.2 Chemical stability:

Stable under normal conditions.

10.3 Possibility of hazardous reactions:

No data available.

10.4 Conditions to avoid:

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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 Gun

No (test)data on the mixture available

2,2-bis(bromomethyl)propane-1,3-diol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		>2000 mg/kg		Rat	Literature study	
Dermal	LD50		>5000 ml/kg		Rat	Literature study	

tris(2-chloro-1-methylethyl) phosphate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	1011-1824 mg/kg bw		Rat (male/female)	Experimental value	
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	Value determination	Remark
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	

bis(2-ethylhexyl) tetrabromophthalate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	>5000 mg/kg		Rat	Experimental value	
Dermal	LD50	OECD 402	>2000 mg/kg		Rabbit	Experimental value	

polymethylene polyphenyl isocyanate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
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	Rat	Literature study	

ethanediol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	BASF-internal standards	7712 mg/kg bw		Rat (male/female)	Experimental value	
Oral			category 4			Annex VI	
Dermal	LD50	Developmental toxicity study	3500 mg/kg bw		Mouse (male/female)	Experimental value	
Inhalation	LC50	Teratogenicity study	> 2.5 mg/l air		Rat (male/female)	Experimental value	

Classification is based on the relevant ingredients

Conclusion

Harmful if inhaled.

Low acute toxicity by the dermal route

Low acute toxicity by the oral route

Corrosion/irritation

Soudafoam FR Gun

Reason for revision: ATP4

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Soudafoam FR Gun

No (test)data on the mixture available

2,2-bis(bromomethyl)propane-1,3-diol

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
	Slightly irritating					Literature	

tris(2-chloro-1-methylethyl) phosphate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	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	Remark
Eye	Moderately irritating	OECD 405	24 h		Rabbit	Experimental value	
Skin	Not irritating	OECD 404	4 h	1; 24; 48; 72; 168 hours	Rabbit	Experimental value	

bis(2-ethylhexyl) tetrabromophthalate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating	OECD 405			Rabbit	Experimental value	
Skin	Not irritating	OECD 404	4 h			Experimental value	

polymethylene polyphenyl isocyanate

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

ethanediol

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	BASF-internal standards		24 hours	Rabbit	Experimental value	
Skin	Not irritating	BASF-internal standards		8 days	Rabbit	Experimental value	

Classification is based on the relevant ingredients

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 Gun

No (test)data on the mixture available

2,2-bis(bromomethyl)propane-1,3-diol

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing					Literature	

tris(2-chloro-1-methylethyl) phosphate

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

triethyl phosphate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 429			Mouse (female)	Experimental value	

bis(2-ethylhexyl) tetrabromophthalate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406			Guinea pig		

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polymethylene polyphenyl isocyanate

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

ethanediol

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Guinea pig maximisation test			Guinea pig (female)	Experimental value	

Classification is based on the relevant ingredients

Conclusion

May cause an allergic skin reaction.

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

Specific target organ toxicity

Soudafoam FR Gun

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 (male)	Experimental value
Oral	NOAEL	Equivalent to OECD 408	2500 ppm		No effect	13 weeks (daily)	Rat (female)	Experimental value

triethyl phosphate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral	NOAEL	OECD 407	1000 mg/kg bw/day		No effect	4 weeks (daily)	Rat (male/female)	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

ethanediol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral	NOAEL	Equivalent to OECD 407	200 mg/kg bw/day	Kidney	No effect	33 day(s)	Rat (male/female)	Experimental value
Dermal	NOAEL	OECD 410	2220 mg/kg bw		Histopathological changes	4 weeks (daily, 5 days/week)	Dog (male)	Experimental value

Classification is based on the relevant ingredients

Conclusion

May cause damage to organs through prolonged or repeated exposure.

Mutagenicity (in vitro)

Soudafoam FR Gun

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 (<i>S.typhimurium</i>)	No effect	Weight of evidence
Negative	Equivalent to OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Weight of evidence

triethyl phosphate

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

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Soudafoam FR Gun

bis(2-ethylhexyl) tetrabromophthalate

Result	Method	Test substrate	Effect	Value determination
Negative	Ames test	Escherichia coli		Experimental value
Negative		Human lymphocytes		Experimental value

ethanediol

Result	Method	Test substrate	Effect	Value determination
Negative	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value
Negative	OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value

Mutagenicity (in vivo)

Soudafoam FR Gun

No (test)data on the mixture available

2,2-bis(bromomethyl)propane-1,3-diol

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Ames test		Rat		

tris(2-chloro-1-methylethyl) phosphate

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD 475		Rat (male)		Weight of evidence

bis(2-ethylhexyl) tetrabromophthalate

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Micronucleus test		Mouse		Experimental value

ethanediol

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Chromosome aberration assay		Rat (male/female)		Experimental value

Carcinogenicity

Soudafoam FR Gun

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)			category 2		Rat	Literature study		Neoplastic effects

ethanediol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Organ	Effect
Oral	NOAEL	Not further determined	1000 mg/kg bw/day	24 month(s)	Rat (male/female)	Experimental value		

Reproductive toxicity

Soudafoam FR Gun

No (test)data on the mixture available

tris(2-chloro-1-methylethyl) phosphate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	LOAEL (P)	OECD 416	99 mg/kg bw	>10 weeks (daily)	Rat (female)	Body weight, organ weight, food consumption	Female reproductive organ	Experimental value
	NOAEL (P)	OECD 416	85 mg/kg bw	>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	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL (P)	OECD 414	125 mg/kg bw/day		Rat (female)	Maternal toxicity		Experimental value
	NOAEL (F1)	OECD 414	625 mg/kg bw/day		Rat (male/female)	Embryotoxicity		Experimental value

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Soudafoam FR Gun

ethanediol

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEC	Developmental toxicity study	150 mg/m ³ air	6 - 15 days (gestation, daily)	Rat	No effect		Experimental value
Effects on fertility	NOAEL	3 generation study	> 1000 mg/kg bw/day		Rat (male/female)	No effect		Experimental value

Classification is based on the relevant ingredients

Conclusion CMR

Suspected of causing cancer.

Not classified for mutagenic or genotoxic toxicity

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

Soudafoam FR Gun

No (test) data on the mixture available

Chronic effects from short and long-term exposure

Soudafoam FR Gun

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.

SECTION 12: Ecological information

12.1 Toxicity:

Soudafoam FR Gun

No (test) data on the mixture available

2,2-bis(bromomethyl)propane-1,3-diol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		> 100 mg/kg	96 h	Salmo gairdneri			Literature study
Acute toxicity invertebrates	LC50		> 100 mg/l	48 h	Daphnia magna			Literature study

tris(2-chloro-1-methylethyl) phosphate

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

triethyl phosphate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Equivalent to OECD 203	> 100 mg/l	96 h	Danio rerio		Fresh water	Experimental value; Nominal concentration
Acute toxicity invertebrates	EC50	OECD 202	2705 mg/l	24 h	Daphnia magna		Fresh water	Experimental value; Nominal concentration
Toxicity algae and other aquatic plants	EC50	Other	901 mg/l	72 h	Scenedesmus subspicatus	Static system	Fresh water	Experimental value; Nominal concentration
Long-term toxicity aquatic invertebrates	NOEC	Equivalent to OECD 211	31.6 mg/l	21 day(s)	Daphnia magna		Fresh water	Experimental value; Reproduction

bis(2-ethylhexyl) tetrabromophthalate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	>1000 mg/l	96 h	Oncorhynchus mykiss			Experimental value
Acute toxicity invertebrates	EC50	OECD 202	0.27 mg/l	48 h	Daphnia magna			Experimental value
Toxicity algae and other aquatic plants	EC50	OECD 201	>5.1 mg/l	96 h	Scenedesmus sp.		Fresh water	Experimental value

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polymethylene polyphenyl isocyanate

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

ethanediol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	EPA 600/4-90/027	72860 mg/l	96 h	Pimephales promelas	Static system	Fresh water	Experimental value
Acute toxicity invertebrates	EC50	OECD 202	> 100 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value
Toxicity algae and other aquatic plants	EC50	EPA 600/9-78-018	6500 - 13000 mg/l	96 h	Pseudokirchneriella subcapitata			Experimental value; Growth rate
Long-term toxicity fish	NOEC	EPA 600/4-90/027	15380 mg/l	7 day(s)	Pimephales promelas			Experimental value
Long-term toxicity aquatic invertebrates	NOEC	EPA 600/4-90/027	8590 mg/l	7 day(s)	Ceriodaphnia sp.		Fresh water	Experimental value
Toxicity aquatic micro-organisms	EC20	ISO 8192	> 1995 mg/l	30 minutes	Activated sludge	Static system	Fresh water	Read-across

Judgement is based on the relevant ingredients of the mixture

Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

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
OECD 301C: Modified MITI Test (I)	0 %	28 day(s)	Experimental value

bis(2-ethylhexyl) tetrabromophthalate

Biodegradation water

Method	Value	Duration	Value determination
Other	93 %		

polymethylene polyphenyl isocyanate

Biodegradation water

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

ethanediol

Biodegradation water

Method	Value	Duration	Value determination
OECD 301A: DOC Die-Away Test	90 - 100 %	10 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
SRC AOP v1.92	46.3 day(s)	500000 /cm ³	Calculated value

Conclusion

Contains non readily biodegradable component(s)

12.3 Bioaccumulative potential:

Soudafoam FR Gun

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

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2,2-bis(bromomethyl)propane-1,3-diol

BCF other aquatic organisms

Parameter	Method	Value	Duration	Species	Value determination
BCF		0.8 - 1.1	6 week(s)		Literature study

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

tris(2-chloro-1-methylethyl) phosphate

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		0.8 - 4.6		Cyprinus carpio	Experimental value

Log Kow

Method	Remark	Value	Temperature	Value determination
		2.59		Experimental value

triethyl phosphate

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	OECD 305	0.5 - < 1.3	6 week(s)	Cyprinus carpio	Experimental value

Log Kow

Method	Remark	Value	Temperature	Value determination
EU Method A.8		1.11		Experimental value

polymethylene polyphenyl isocyanate

BCF fishes

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

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

ethanediol

Log Kow

Method	Remark	Value	Temperature	Value determination
		- 1.36		

Conclusion

Does not contain bioaccumulative component(s)

12.4 Mobility in soil:

ethanediol

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v1.66	0	Calculated value

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
0.1327 Pa.m ³ /mol	SRC HENRYWIN v3.10	25 °C		Calculated value

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Other	0.03 %		0 %	0 %	100 %	Calculated value

Conclusion

Contains component(s) with potential for mobility in the soil

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 Gun

Global warming potential (GWP)

Contains component(s) included in the list of fluorinated greenhouse gases (Regulation (EC) No 842/2006)

Ozone-depleting potential (ODP)

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

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Soudafoam FR Gun

ethanediol

Ground water

Ground water pollutant

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 05 01* (wastes not otherwise specified in 08: waste isocyanates).

16 05 04* (gases in pressure containers and discarded chemicals: gases in pressure containers (including halons) containing dangerous substances).

Depending on branch of industry and production process, also other waste 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

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

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

SECTION 14: Transport information

Road (ADR)

14.1 UN number:

UN number	1950
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14.2 UN proper shipping name:

Proper shipping name	Aerosols
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14.3 Transport hazard class(es):

Hazard identification number	
Class	2
Classification code	5F

14.4 Packing group:

Packing group	
Labels	2.1

14.5 Environmental hazards:

Environmentally hazardous substance mark	no
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14.6 Special precautions for user:

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

Rail (RID)

14.1 UN number:

UN number	1950
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14.2 UN proper shipping name:

Proper shipping name	Aerosols
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14.3 Transport hazard class(es):

Hazard identification number	23
Class	2
Classification code	5F

14.4 Packing group:

Packing group	
Labels	2.1

14.5 Environmental hazards:

Environmentally hazardous substance mark	no
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Soudafoam FR Gun

14.6 Special precautions for user:

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

Inland waterways (ADN)

14.1 UN number:

UN number	1950
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14.2 UN proper shipping name:

Proper shipping name	Aerosols
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14.3 Transport hazard class(es):

Class	2
Classification code	5F

14.4 Packing group:

Packing group	
Labels	2.1

14.5 Environmental hazards:

Environmentally hazardous substance mark	no
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14.6 Special precautions for user:

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

Sea (IMDG/IMSBC)

14.1 UN number:

UN number	1950
-----------	------

14.2 UN proper shipping name:

Proper shipping name	Aerosols
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14.3 Transport hazard class(es):

Class	2.1
-------	-----

14.4 Packing group:

Packing group	
Labels	2.1

14.5 Environmental hazards:

Marine pollutant	-
Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	63
Special provisions	190
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)

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

Annex II of MARPOL 73/78	Not applicable
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Air (ICAO-TI/IATA-DGR)

14.1 UN number:

UN number	1950
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14.2 UN proper shipping name:

Proper shipping name	Aerosols, flammable
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14.3 Transport hazard class(es):

Class	2.1
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14.4 Packing group:

Packing group	
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Reason for revision: ATP4

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Soudafoam FR Gun

Labels	2.1
14.5 Environmental hazards:	
Environmentally hazardous substance mark	no
14.6 Special precautions for user:	
Special provisions	A145
Special provisions	A167
Special provisions	A802
Passenger and cargo transport: limited quantities: maximum net quantity per packaging	30 kg G

SECTION 15: Regulatory information

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

European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
38.93 %	

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.

Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
tris(2-chloro-1-methylethyl) phosphate triethyl phosphate bis(2-ethylhexyl) tetrabromophthalate polymethylene polyphenyl isocyanate ethanediol	<p>Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008:</p> <p>(a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F;</p> <p>(b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10;</p> <p>(c) hazard class 4.1;</p> <p>(d) hazard class 5.1.</p> <p>1. Shall not be used in: — ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, — tricks and jokes, — games for one or more participants, or any article intended to be used as such, even with ornamental aspects. 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with R65 or H304. 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN). 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life-threatening lung damage"; b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage"; c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010. 6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public. 7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'</p>
polymethylene polyphenyl isocyanate	<p>Methylenediphenyl diisocyanate (MDI) including the following specific isomers: 4,4'-Methylenediphenyl diisocyanate; 2,4'-Methylenediphenyl diisocyanate; 2,2'-Methylenediphenyl diisocyanate</p> <p>1. Shall not be placed on the market after 27 December 2010, as a constituent of mixtures in concentrations equal to or greater than 0,1 % by weight of MDI for supply to the general public, unless suppliers shall ensure before the placing on the market that the packaging: (a) contains protective gloves which comply with the requirements of Council Directive 89/686/EEC; (b) is marked visibly, legibly and indelibly as follows, and without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures: — Persons already sensitised to diisocyanates may develop allergic reactions when using this product. — Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. — This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used. 2. By way of derogation, paragraph 1(a) shall not apply to hot melt adhesives.</p>

National legislation The Netherlands

Soudafoam FR Gun

Waste identification (the Netherlands)	LWCA (the Netherlands): KGA category 06
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Soudafoam FR Gun

Waterbezwaarljkheid	8
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National legislation Germany

Soudafoam FR Gun

WGK	1; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)
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triethyl phosphate

TA-Luft	5.2.5
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polymethylene polyphenyl isocyanate

TRGS905 - Krebserzeugend	3
TRGS905 - Erbgutverändernd	-
TRGS905 - Fruchtbarkeitsgefährdend	-
TRGS905 - Fruchtschädigend	-
MAK - Krebserzeugend Kategorie	4
Schwangerschaft Gruppe	C
MAK 8-Stunden-Mittelwert mg/m ³	„polymeres MDI“ (einatembare Fraktion); 0.05 mg/m ³ ; gemessen als einatembare Fraktion (vgl. Abschn. Vd) S. 191)

ethanediol

Schwangerschaft Gruppe	C
MAK 8-Stunden-Mittelwert ppm	Ethylenglykol; 10 ppm
MAK 8-Stunden-Mittelwert mg/m ³	Ethylenglykol; 26 mg/m ³
TA-Luft	5.2.5

National legislation France

Soudafoam FR Gun

No data available

National legislation Belgium

Soudafoam FR Gun

No data available

Other relevant data

Soudafoam FR Gun

No data available

2,2-bis(bromomethyl)propane-1,3-diol

IARC - classification	2B; 2,2-bis(bromomethyl)propane-1,3-diol
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polymethylene polyphenyl isocyanate

IARC - classification	3; Polymethylene polyphenyl isocyanate
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ethanediol

TLV - Carcinogen	Ethylene glycol; A4
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15.2 Chemical safety assessment:

No chemical safety assessment is required.

SECTION 16: Other information

Full text of any R-phrases referred to under headings 2 and 3:

- R20 Harmful by inhalation
- R22 Harmful if swallowed
- R36 Irritating to eyes
- 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
- R50 Very toxic to aquatic organisms

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

- H220 Extremely flammable gas.
- H222 Extremely flammable aerosol.
- H229 Pressurised container: May burst if heated.
- 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.

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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 the kidneys through prolonged or repeated exposure if swallowed.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.

(*) = 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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