

## Soudafoam FR

### 1. Identification of the substance/preparation and of the company/undertaking

#### 1.1 Identification of the substance or preparation:

Product name: Soudafoam FR

EC index number 234074

#### 1.2 Use of the substance/preparation:

polyurethane

#### 1.3 Company/undertaking identification:

SOULDAL 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:

24h/24h: +32 14 58 45 45 (BIG)

### 2. Hazards identification

#### DSD/DPD

Classified dangerous in accordance with Directives 67/548/EEC and 1999/45/EC

Harmful by inhalation

Irritating to eyes, respiratory system and skin

Limited evidence of a carcinogenic effect

May cause sensitisation by inhalation and skin contact

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

#### Other hazards

May be ignited by sparks

Gas/vapour spreads at floor level: ignition hazard

Aerosol may explode under the effect of heat

### 3. Composition/information on ingredients

Name	CAS No EINECS/ELINCS	Conc.	Classification according to DSD/DPD	Classification according to CLP	Note
halogenated polyetherpolyol	86675-46-9	1%<C<25%	Xn; R22	Acute Tox. 4; H302	(1)
tris(2-chloro-1-methylethyl) phosphate	13674-84-5 237-158-7	1%<C<25%	Xn; R22	Acute Tox. 4; H302 Aquatic Chronic 3; H412	(1)
triethyl phosphate	78-40-0 201-114-5	1%<C<25%	Xn; R22	Acute Tox. 4*; H302	(1)
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)
1,1-difluoroethane	75-37-6 200-866-1	1%<C<10%	F+; R12	Flam. Gas 1; H220 Press. Gas (*) - Liquefied gas; H280	(1)

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isobutane	75-28-5 200-857-2	1%<C<10%	F+; R12	Flam. Gas 1; H220 Press. Gas (*) - Liquefied gas; H280	(1)(2)
dimethyl ether	115-10-6 204-065-8	1%<C<10%	F+; R12	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)

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

(2) Substance with a Community workplace exposure limit

## 4. First aid measures

### 4.1 After inhalation:

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

### 4.2 Skin contact:

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

### 4.3 Eye contact:

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

### 4.4 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

## 5. Fire-fighting measures

### 5.1 Suitable extinguishing media:

BC powder  
Carbon dioxide  
Sand/earth

### 5.2 Unsuitable extinguishing media:

Solid water jet ineffective as extinguishing medium

### 5.3 Special exposure hazards:

May be ignited by sparks  
Gas/vapour spreads at floor level: ignition hazard  
Aerosol may explode under the effect of heat  
On burning: release of toxic and corrosive gases/vapours (nitrous vapours, phosphorus oxides, hydrogen bromide, hydrogen chloride, hydrofluoric acid) (carbon monoxide - carbon dioxide)

### 5.4 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

### 5.5 Special protective equipment for fire-fighters:

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

## 6. Accidental release measures

### 6.1 Personal precautions:

See heading 8.2

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## 6.2 Environmental precautions:

- Dam up the liquid spill
- Use appropriate containment to avoid environmental contamination
- See heading 13

## 6.3 Methods for 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

## 7. Handling and storage

### 7.1 Handling:

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

### 7.2 Storage:

#### Safe storage requirements:

- 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
- Storage temperature: < 50 °C
- Max. storage time: 1 year(s)

#### Keep away from:

#### Suitable packaging material:

- aerosol

### 7.3 Specific use(s):

- See information supplied by the manufacturer for the identified use(s)

## 8. Exposure controls/Personal protection

### 8.1 Exposure limit values:

- 8.1.1 Occupational exposure:  
If limit values are applicable and available these will be listed below.

#### Regulatory exposure limit (The Netherlands)

Dimethylether	Short time value	790 ppm 1500 mg/m <sup>3</sup>
	Time-weighted average exposure limit	500 ppm 950 mg/m <sup>3</sup>

#### Indicative exposure limit EU (Directives 2009/19/EU, 2006/15/EC, 2000/39/EC, 98/27/EC, 96/94/EC, 91/322/EEC)

Dimethylether	Short time value	- ppm - mg/m <sup>3</sup>
	Time-weighted average exposure limit	1000 ppm 1920 mg/m <sup>3</sup>

#### Limit Value (Belgium)

Dimethylether	Short time value	- ppm - mg/m <sup>3</sup>
	Time-weighted average exposure limit	1000 ppm 1920 mg/m <sup>3</sup>
Alifatische koolwaterstoffen in gasvorm: alkanen (C1-C4)	Short time value	- ppm - mg/m <sup>3</sup>

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Alifatische koolwaterstoffen in gasvorm: alkanen (C1-C4)	Time-weighted average exposure limit	1000 ppm - mg/m <sup>3</sup>
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## TRGS 900 (Germany)

Isobutan	Time-weighted average exposure limit	1000 ppm 2400 mg/m <sup>3</sup>
Dimethylether	Time-weighted average exposure limit	1000 ppm 1900 mg/m <sup>3</sup>

## Limit Value (France)

Oxyde de diméthyle	Short time value	- ppm - mg/m <sup>3</sup>
	Time-weighted average exposure limit	1000 ppm 1920 mg/m <sup>3</sup>

## Limit Value (UK)

Isocyanates, all (as -NCO)	Short time value	-(-NCO) ppm 0.07(-NCO) mg/m <sup>3</sup>
	Time-weighted average exposure limit	-(-NCO) ppm 0.02(-NCO) mg/m <sup>3</sup>
Dimethyl ether	Short time value	500 ppm 958 mg/m <sup>3</sup>
	Time-weighted average exposure limit	400 ppm 766 mg/m <sup>3</sup>

## 8.1.2 Sampling methods:

Product name	Test	Number	Sampling method	Remarks
1,1-Difluoroethane	OSHA	CSI		
Isocyanates	NIOSH	5521	wet chemical	
Isocyanates	NIOSH	5522	wet chemical	
Methyl Ether	OSHA	CSI		
Papi	OSHA	CSI		
Propane	OSHA	CSI		

## 8.2 Exposure controls:

### 8.2.1 Occupational exposure controls:

Measure the concentration in the air regularly

Personal protective equipment:

- Respiratory protection:  
Wear gas mask with filter type A if conc. in air > exposure limit
- Hand protection:  
Gloves
- Eye protection:  
Protective goggles
- Skin protection:  
Head/neck protection  
Protective clothing

### 8.2.2 Environmental exposure controls:

See headings 6.2, 6.3 and 13

## 9. Physical and chemical properties

### 9.1 General information:

Physical form	Aerosol
Odour	Characteristic odour
Colour	Variable in colour, depending on the composition

### 9.2 Important health, safety and environmental information:

Relative vapour density	1.1
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### 9.3 Other information:

## 10. Stability and reactivity

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## 10.1 Conditions to avoid:

### Possible fire hazard

heat sources  
ignition sources

### Stability

Stable under normal conditions

## 10.2 Materials to avoid:

## 10.3 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)

## 11. Toxicological information

### 11.1 Acute toxicity:

dimethyl ether

LC50 inhalation (rat)	309 mg/l/4h
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1,1-difluoroethane

LC50 inhalation (rat)	176 mg/l/4h
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polymethylene polyphenyl isocyanate

LD50 oral (rat)	> 10000 mg/kg
LD50 dermal (rabbit)	> 5000 mg/kg

triethyl phosphate

LD50 oral (rat)	1165 mg/kg
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isobutane

LC50 inhalation (rat)	> 50 mg/l/4h
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tris(2-chloro-1-methylethyl) phosphate

LD50 oral (rat)	1150 - 1750 mg/kg
LD50 dermal (rat)	> 2000 mg/kg
LD50 dermal (rabbit)	> 2000 mg/kg
LC50 inhalation (rat)	> 5 mg/l/4h

### 11.2 Chronic toxicity:

No certainty about human carcinogenic properties  
Not listed in mutagenicity class (EC,MAK)  
Contains a substance of group C (MAK-Schwangerschaftsgruppe)

dimethyl ether

MAK - Schwangerschaft Gruppe	D
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polymethylene polyphenyl isocyanate

EC carc cat	3
IARC - classification	3
MAK - Krebserzeugend Kategorie	4
MAK - Schwangerschaft Gruppe	C

isobutane

MAK - Schwangerschaft Gruppe	D
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EC carc cat	3
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### 11.3 Acute effects/symptoms:

#### Inhalation:

Dry/sore throat  
Coughing  
Irritation of the respiratory tract  
Irritation of the nasal mucous membranes

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Runny nose  
FOLLOWING SYMPTOMS MAY APPEAR LATER:  
Possible inflammation of the respiratory tract  
Risk of lung oedema  
Respiratory difficulties

**Skin contact:**

Tingling/irritation of the skin

**Eye contact:**

Irritation of the eye tissue  
Lacrimation

**Ingestion:**

Not applicable

**11.4 Chronic effects:**

Prolonged exposure: danger of serious damage to health through inhalation  
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

## 12. Ecological information

**12.1 Ecotoxicity:**

dimethyl ether

LC50 fishes

species	value	duration (h)	remarks
PISCES	>1000 mg/l	96 h	

triethyl phosphate

LC50 fishes

species	value	duration (h)	remarks
PIMEPHALES PROMELAS	1070 mg/l	96 h	

EC50 Daphnia

species	value	duration (h)	remarks
DAPHNIA MAGNA	330 mg/l	48 h	

EC50 other aquatic organisms

species	value	duration (h)	remarks
SELENASTRUM CAPRICORNUTUM	1000 mg/l	168 h	OECD 201

tris(2-chloro-1-methylethyl) phosphate

LC50 fishes

species	value	duration (h)	remarks
BRACHYDANIO RERIO	56.2 mg/l	96 h	

EC50 Daphnia

species	value	duration (h)	remarks
DAPHNIA MAGNA	65 - 335 mg/l	48 h	

EC50 other aquatic organisms

species	value	duration (h)	remarks
SCENEDESMUS SUBSPICATUS	45 mg/l	72 h	

**12.2 Mobility:**

Volatile organic compounds (VOC)  
Solubility in/reaction with water

23 %  
Literature reports: insoluble in water

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## 12.3 Persistence and degradability:

Contains non readily biodegradable component(s)

## 12.4 Bioaccumulative potential:

No bioaccumulation data available

## 12.5 Results of PBT assessment:

Not applicable, based on available data

## 12.6 Other adverse effects:

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

May contribute to the greenhouse effect (Council Regulation (EC) No 842/2006, O.J. L161 of 14/6/2006)

## 13. Disposal considerations

### 13.1 Provisions relating to waste:

Waste material code (Directive 2008/98/EC, decision 2001/118/EC)

08 04 09\* : waste adhesives and sealants containing organic solvents or other dangerous substances

Depending on branch of industry and production process, also other EURAL codes may be applicable

Hazardous waste according to Directive 2008/98/EC

### 13.2 Disposal methods:

Recycle/reuse

Remove waste in accordance with local and/or national regulations

Do not discharge into drains or the environment

### 13.3 Packaging/Container:

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

15 01 10\* : packaging containing residues of or contaminated by dangerous substances

## 14. Transport information

### ADR

Proper shipping name	Aerosols
UN number	1950
Class	2
Packing group	
Hazard identification number	
Classification code	5F
Labels	2.1
Environmentally hazardous substance mark	

### RID

Proper shipping name	Aerosols
UN number	1950
Class	2
Packing group	
Classification code	5F
Labels	2.1
Environmentally hazardous substance mark	

### ADNR

Proper shipping name	Aerosols
UN number	1950
Class	2
Packing group	
Classification code	5F
Labels	2.1
Environmentally hazardous substance mark	

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## IMO

Proper shipping name	Aerosols
UN number	1950
Class	2.1
Packing group	-
Labels	2.1
Marine pollutant	
Environmentally hazardous substance mark	

## ICAO

Proper shipping name	Aerosols
UN number	1950
Class	2.1
Packing group	
Labels	2.1
Environmentally hazardous substance mark	

## 15. Regulatory information

### 15.1 EU Legislation:

#### DSD/DPD



Extremely flammable



Harmful

Contains: 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

23	Do not breathe spray
36/37	Wear suitable protective clothing and gloves
45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
51	Use only in well-ventilated areas
(63)	(In case of accident by inhalation: remove casualty to fresh air and keep at rest)

#### Additional recommendations

	Keep away from sources of ignition - No smoking.
	Keep out of the reach of children.
	Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C.
	Do not pierce or burn, even after use.
	Do not spray on a naked flame or any incandescent material.
	Contains isocyanates. See information supplied by the manufacturer.
	<ul style="list-style-type: none"> <li>— Persons already sensitised to diisocyanates may develop allergic reactions when using this product.</li> <li>— Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.</li> <li>— 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.</li> </ul>

### 15.2 National provisions:

#### The Netherlands



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Waterbezwaarlijkheid (for NL)  
Waste identification other lists of waste materials

8  
LWCA (the Netherlands): KGA category 06

## Germany

TA-Luft

dimethyl ether: TA-Luft Klasse 5.2.5  
1,1-difluoroethane: TA-Luft Klasse 5.2.5  
triethyl phosphate: TA-Luft Klasse 5.2.5  
isobutane: TA-Luft Klasse 5.2.5

WGK

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

## 15.3 Specific community rules:

Enumerated in Annex XVII of Regulation (EC) No. 1907/2006: Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

Legislation	Reference legislation
EG/552/2009	See column 1: 40.
EG/552/2009	See column 1: 56.

## 16. Other information

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question.

Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult your BIG licence agreement for details.

(\*) = INTERNAL CLASSIFICATION (NFPA)

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)

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

R12	Extremely flammable
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
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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

H220	Extremely flammable gas.
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
H412	Harmful to aquatic life with long lasting effects.

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Full text of any classes referred to under headings 2 and 3:

Acute Tox.	Acute toxicity
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Carc.	Carcinogenicity
Eye Irrit.	Eye irritation
Flam. Gas	Flammable gas
Press. Gas	Gases under pressure
Press. Gas (*)	Gases under pressure (*)
Resp. Sens.	Respiratory sensitization
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitization
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure