

SAFETY DATA SHEET

Op basis van richtlijn 91/155/EEG van der
Commission of the European Communities

SOUDAFOAM GUN

1. Identification of the substance/preparation and the company

1.1 Identification of the substance or preparation:

CAS no. : N.A.
EC index no. : N.A.
EINECS no. : N.A.
RETCS no. : N.A.
NFPA code : N.D.
Molecular weight : N.A.
Formula : N.A.

1.2 Company/undertaking identification:

SOUDAL N.V.
Everdongenlaan 18-20
B-2300 Turnhout
Tel. : (+32) (0)14-42 42 31 - Fax. : (+32) (0)14-44 39 71

1.3 Telephone number for emergency:

(+32) (0)14-58 45 45
Brandweerinformatiecentrum voor gevaarlijke stoffen (B.I.G.)
Technische Schoolstraat 43 A, B-2440 Geel

2. Composition/information on ingredients

Hazardous ingredients	CAS no.	Conc. in %	Hazard-symbol	Risks (R-phrases)
polymethylenepolyphenylisocyanate	9016-87-9	> 25	Xn	20-36/37/38-42/43
dimethyl ether	115-10-6	< 10	F+	12
propane	74-98-6	< 5	F+	12
isobutane	75-28-5	< 10	F+	12
tris(2-chloro-1-methylethyl)phosphate	13674-84-5	< 25	-	52/53
alpha,alpha',alpha''-1,2,3-propanetriyl-tris-(omega-hydroxy-)-poly[oxy(methyl-1,2-ethanediyl)]	25791-96-2	< 25	Xn	22

3. Hazards identification

- Extremely flammable
- Harmful by inhalation
- Irritating to eyes, respiratory system and skin
- May cause sensitization by inhalation and skin contact

4. First aid measures

4.1 Eye contact:

- Rinse immediately with plenty of water
- Seek medical advice

4.2 Skin contact:

- Rinse immediately with plenty of water
- If irritation persists: seek medical advice

4.3 After inhalation:

- Remove the victim into fresh air
- Seek medical advice

4.4 After ingestion:

- Never give water to an unconscious person
- Do not induce vomiting
- Seek medical advice

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5. Fire-fighting measures

5.1 Suitable extinguishing media:

- Quantities of water
- Polyvalent foam
- Dry chemical powder
- Carbon dioxide

5.2 Unsuitable extinguishing media:

- None

5.3 Special exposure hazards:

- On burning: release of toxic and corrosive gases/vapours: phosphorus oxides, nitrous vapours, hydrogen chloride, carbon monoxide and carbon dioxide
- Gas/vapour spreads at floor level: ignition hazard
- Gas/vapour flammable with air within explosion limits
- Aerosol may explode under the effect of heat

5.4 Instructions:

- Dilute toxic gases with water spray
- Do not move the load if exposed to heat

5.5 Special protective equipment for firefighters:

- Heat/fire exposure: compressed air/oxygen apparatus

6. Accidental release measures

6.1 Personal protection: see 8.3

6.2 Environmental precautions:

- Use appropriate containment to avoid environmental contamination

6.3 Clean-up:

- Allow product to solidify and remove it by mechanical means
- Remove uncured foam with acetone

7. Handling and storage

7.1 Handling:

- Observe very strict hygiene - avoid contact
- In case of insufficient ventilation: keep naked flames/sparks away

7.2 Storage:

- Store in a cool area
- Store in a dry area
- Keep out of direct sunlight
- Keep away from: heat sources, ignition sources, acids, bases

Storage temperature: < 50 °C

7.3 Materials for packaging:

- suitable : aerosol dispenser

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8. Exposure controls/Personal protection

- 8.1 Recommended engineering controls:
 - Use only in well ventilated area

8.2 Exposure limits:

POLYMETHYLENEPOLYPHENYLISOCYANATE :

TLV-TWA	: -	mg/m ³	-	ppm
TLV-STEL	: -	mg/m ³	-	ppm
TLV-Ceiling	: -	mg/m ³	-	ppm
OES-LTEL	: 0.02 (-NCO)	mg/m ³	-	ppm
OES-STEL	: 0.07 (-NCO)	mg/m ³	-	ppm
MEL-LTEL	: -	mg/m ³	-	ppm
MEL-STEL	: -	mg/m ³	-	ppm
MAK	: -	mg/m ³	-	ppm
TRK	: -	mg/m ³	-	ppm
MAC-TGG 8 h	: -	mg/m ³	-	
MAC-TGG 15 min.	: -	mg/m ³	-	
MAC-Ceiling	: -	mg/m ³	-	
VME-8 h	: -	mg/m ³	-	ppm
VLE-15 min.	: -	mg/m ³	-	ppm
GWBB-8 h	: -	mg/m ³	-	ppm
GWK-15 min.	: -	mg/m ³	-	ppm
Momentary value	: -	mg/m ³	-	ppm

PROPANE :

TLV-TWA	: -	mg/m ³	2500	ppm
TLV-STEL	: -	mg/m ³	-	ppm
TLV-Ceiling	: -	mg/m ³	-	ppm
OES-LTEL	: -	mg/m ³	-	ppm
OES-STEL	: -	mg/m ³	-	ppm
MEL-LTEL	: -	mg/m ³	-	ppm
MEL-STEL	: -	mg/m ³	-	ppm
MAK	: 1800	mg/m ³	1000	ppm
TRK	: -	mg/m ³	-	ppm
MAC-TGG 8 h	: -	mg/m ³	-	
MAC-TGG 15 min.	: -	mg/m ³	-	
MAC-Ceiling	: -	mg/m ³	-	
VME-8 h	: -	mg/m ³	-	ppm
VLE-15 min.	: -	mg/m ³	-	ppm
GWBB-8 h	: -	mg/m ³	-	ppm
GWK-15 min.	: -	mg/m ³	-	ppm
Momentary value	: -	mg/m ³	-	ppm

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DIMETHYL ETHER:

TLV-TWA	: -	mg/m ³	-	ppm
TLV-STEL	: -	mg/m ³	-	ppm
TLV-Ceiling	: -	mg/m ³	-	ppm
OES-LTEL	: 766	mg/m ³	400	ppm
OES-STEL	: 958	mg/m ³	500	ppm
MEL-LTEL	: -	mg/m ³	-	ppm
MEL-STEL	: -	mg/m ³	-	ppm
MAK	: 1900	mg/m ³	1000	ppm
TRK	: -	mg/m ³	-	ppm
MAC-TGG 8 h	: 950	mg/m ³		
MAC-TGG 15 min.	: 1500	mg/m ³		
MAC-Ceiling	: -	mg/m ³		
VME-8 h	: -	mg/m ³	-	ppm
VLE-15 min.	: -	mg/m ³	-	ppm
GWBB-8 h	: -	mg/m ³	-	ppm
GWK-15 min.	: -	mg/m ³	-	ppm
Momentary value	: -	mg/m ³	-	ppm

ISO-BUTANE:

TLV-TWA	: -	mg/m ³	-	ppm
TLV-STEL	: -	mg/m ³	-	ppm
TLV-Ceiling	: -	mg/m ³	-	ppm
OES-LTEL	: -	mg/m ³	-	ppm
OES-STEL	: -	mg/m ³	-	ppm
MEL-LTEL	: -	mg/m ³	-	ppm
MEL-STEL	: -	mg/m ³	-	ppm
MAK	: 2400	mg/m ³	1000	ppm
TRK	: -	mg/m ³	-	ppm
MAC-TGG 8 h	: -	mg/m ³		
MAC-TGG 15 min.	: -	mg/m ³		
MAC-Ceiling	: -	mg/m ³		
VME-8 h	: -	mg/m ³	-	ppm
VLE-15 min.	: -	mg/m ³	-	ppm
GWBB-8 h	: -	mg/m ³	-	ppm
GWK-15 min.	: -	mg/m ³	-	ppm
Momentary value	: -	mg/m ³	-	ppm

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8.3 Personal protection:

eye protection:

- Safety glasses

hand protection:

- Chemically resistant gloves

skin protection:

- Suitable protective clothing

respiratory protection:

- In case of insufficient ventilation: respiratory protection with filtertype A

9. Physical and chemical properties

9.1 Appearance (at 20°C)	:	Aerosol	
9.2 Odour	:	Characteristic	
9.3 Colour	:	Variable in colour	
9.4 pH value	:	N.A.	
9.5 Boiling point/boiling range	:	N.A.	°C
9.6 Melting point/melting range	:	N.A.	°C
9.7 Flashpoint	:	Contains (highly) flammable component	
9.8 Auto-ignition point	:	N.A.	°C
9.9 Explosion limits	:	N.A.	Vol%
9.10 Vapour pressure (at 20°C)	:	N.A.	hPa
9.11 Relative density (at 20°C)	:	N.A.	
9.12 Water solubility	:	N.A.	
9.13 Soluble in	:	N.A.	
9.14 Relative vapour density	:	> 1	
9.15 Saturation concentration	:	N.A.	g/m ³
9.16 Viscosity	:	N.A.	Pa.s

10. Stability and reactivity

10.1 Stability:

- Unstable on exposure to heat

10.2 Reactivity/Hazardous decomposition products:

- On burning: release of toxic and corrosive gases/vapours: phosphorus oxides, nitrous vapours, hydrogen chloride, carbon monoxide and carbon dioxide
- On heating: release of toxic/combustible gases/vapours: hydrogen cyanide
- May polymerize on exposure to temperature rise
- May polymerize with vele compounds, o.a.: (strong) bases and amines
- Reacts violently with (some) acids/bases

10.3 Conditions/materials to avoid:

- Heat sources, ignition sources, acids, bases

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11. Toxicological information

11.1 Acute toxicity:

POLYMETHYLENEPOLYPHENYLISOCYANATE:

LD50 oral rat	: > 10000	mg/kg
LD50 dermal rabbit	: N.D.	mg/kg
LD50 dermal rabbit	: > 5000	mg/kg
LC50 inhalation rat	: N.D.	mg/l/4 h

TRIS (2-CHLORO-1-METHYLETHYL) PHOSPHATE:

LD50 oral rat	: 3600	mg/kg
LD50 dermal rabbit	: > 2000	mg/kg
LD50 dermal rabbit	: > 2000	mg/kg
LC50 inhalation rat	: > 5	mg/l/4 h

PROPANE:

LD50 oral rat	: N.D.	mg/kg
LD50 dermal rabbit	: N.D.	mg/kg
LD50 dermal rabbit	: N.D.	mg/kg
LC50 inhalation rat	: 513	mg/l/4 h

ISO-BUTANE:

LD50 oral rat	: N.D.	mg/kg
LD50 dermal rabbit	: N.D.	mg/kg
LD50 dermal rabbit	: N.D.	mg/kg
LC50 inhalation rat	: 658	mg/l/4 h

ALPHA, ALPHA', ALPHA'' -1, 2, 3-PROPANETRIYL-TRIS-(OMEGA-HYDROXY-) POLY[OXY (METHYL-1, 2-ETHANEDIYL)],

LD50 oral rat	: 1500/2000	mg/kg
LD50 dermal rabbit	: N.D.	mg/kg
LD50 dermal rabbit	: > 2000	mg/kg
LC50 inhalation rat	: N.D.	mg/l/4 h

11.2 Chronic toxicity:

EC carc. cat.	: not listed
EC muta. cat.	: not listed
EC repr. cat.	: not listed
Mutagenicity(MAK)	: not listed
Teratogenicity (MAK)	: D (dimethyl ether)
Carcinogenicity (MAK)	: 3 (polymethylenepolyphenylisocyanate)
IARC classification	: 3 (polymethylenepolyphenylisocyanate)

Obligatory medical control in Belgium (ARAB-RGPT Art. 124):

Group: V	Number: 5.2 (polymethylenepolyphenylisocyanate)
Group: I	Number: 21 (iso-butane)
Group: I	Number: 23.3 (dimethyl ether)

11.3 Routes of exposure: inhalation, eyes and skin

11.4 Acute effects/symptoms (upon overexposure) :

AFTER INHALATION:

- Harmful by inhalation
- Dry/sore throat
- Coughing, irritation of the respiratory tract, irritation of the nasal mucous membranes
- Runny nose

FOLLOWING SYMPTOMS MAY APPEAR LATER:

- 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

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11.5 Chronic effects:

- May cause sensitization by skin contact
- May cause sensitization by inhalation
- Contains substance with uncertain carcinogenic properties (polymethylenepolyphenylisocyanate)
- Body temperature rise
- Tremor
- Feeling of weakness
- Headache
- Skin rash/inflammation
- May stain the skin
- Dry skin
- Risk of pneumonia

12. Ecological information

12.1 Mobility:

- Volatile organic compounds (VOC): 22 %

12.2 Biodegradation:

- | | | | |
|---------|------------------|--------|-------------------------------|
| - Soil: | T $\frac{1}{2}$ | : N.D. | days |
| | BOD ₅ | : N.D. | g O ₂ /g substance |
| | COD | : N.D. | g O ₂ /g substance |

- Water: - No data available

12.3 Bioaccumulation:

- log P_{ow} : N.D.
- BCF : N.D.

12.4 Aquatic toxicity:

TRIS(2-CHLORO-1-METHYLETHYL)PHOSPHATE:

- LC50 (96 h) : 98 mg/l (PIMEPHALES PROMELAS)
- LC50 (48 h) : 131 mg/l (DAPHNIA MAGNA)
- EC50 (96 h) : 57/97 mg/l (SELENASTRUM CAPRICORNUTUM)

12.5 Other information:

- WGK: - (002)
- Not dangerous for the ozone layer (1999/45/EC)
- Waste water purification: N.D.

13. Waste disposal considerations

13.1 Provisions relating to waste:

- Waste material code (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 08 05 01 (waste isocyanates)
- Waste material code (Flanders): 015; 651
- Hazardous waste (91/689/EEC)

13.2 Disposal methods:

- Landfill or incinerate at an approved site in accordance with national and local regulations
- Specific treatment
- Do not discharge into surface water

13.3 Packaging:

- Waste material code packaging (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 15 01 10 (packaging containing residues of or contaminated by dangerous substances)

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14. Transport information



- 14.1 Proper shipping name: UN 1950, Aerosols
- 14.2 Transport by road/rail (ADR/RID): Class 2, 5 A
Danger code: -
Danger labels on tanks : -
on packages : 2
- 14.3 Substance identification number (UN number): 1950
Packing: -
- 14.4 Maritime transport (IMDG code): Class 2.2 p 2102 (1998 edit.)
EMS : 2-13
MFAG : 620 (1998 edit.)
Marine pollutant : -
- 14.5 Inland navigation (ADNR): Class 2, 5 A
- 14.6 Air freight (ICAO) : Class 2.2
Instruction "passenger": 203/Y203
Instruction "cargo": 203
- 14.7 Other information:

When substances and their packaging meet the conditions established by ADR/RID marginal 2201a, **only** the following prescriptions shall be complied with:
each package shall display a diamond-shaped figure with the following inscription:
- 'UN 1950'
or, in the case of different goods with different identification numbers within a single package:
- the letters 'LQ'

15. Regulatory information

Labelling in accordance with EC directives 67/548/EEC and 1999/45/EC (**: see 16):



Extremely flammable



Harmful

- Contains : polymethylenepolyphenylisocyanate
- R20 : Harmful by inhalation
R36/37/38 : Irritating to eyes, respiratory system and skin
R42/43 : May cause sensitization by inhalation and skin contact
- S23 : Do not breathe spray
S36/37/39 : Wear suitable protective clothing gloves, and eye/face protection
S38 : In case of insufficient ventilation, wear respiratory equipment
S45 : In case of accident or if you feel unwell, seek medical advice (show the label where possible)
S51 : Use only in well ventilated area.

Keep away from sources of ignition - No smoking
Keep out of reach of children
Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C.
Do not pierce or burn after use.

Contains isocyanates. See information supplied by the manufacturer.

