

Soudal Gun Foam

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

1.1 Identification of the substance or preparation:

Product name Soudal Gun Foam

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 as dangerous in accordance with the criteria of 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

May cause long-term adverse effects in the aquatic environment

May cause harm to breastfed babies

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
alkanes, C14-17, chloro;	85535-85-9 287-477-0	2.5%<C<25%	R64 R66 N; R50-53	Lact. ; H362 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	(1)(2)
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)
propane	74-98-6 200-827-9	1%<C<10%	F+; R12	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)

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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<20%	F+; R12	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)
(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

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:

Quantities of water
Polyvalent foam
BC powder
Carbon dioxide

5.2 Unsuitable extinguishing media:

No unsuitable extinguishing media known

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, hydrogen chloride, carbon monoxide - carbon dioxide)
May polymerize on exposure to temperature rise
On heating: release of toxic/combustible gases/vapours (hydrogen cyanide)

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

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6. Accidental release measures

6.1 Personal precautions:

See heading 8.2

6.2 Environmental precautions:

Dam up the solid 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
Take collected spill to manufacturer/competent authority
Clean (treat) contaminated surfaces with acetone
Wash clothing and equipment after handling

7. Handling and storage

7.1 Handling:

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

7.2 Storage:

Safe storage requirements:

Store in a cool area
Keep out of direct sunlight
Store in a dry area
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:

(strong) acids
(strong) bases

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	1500 mg/m ³
	Short time value, calculated	783 ppm
	Time-weighted average exposure limit 8 h	950 mg/m ³
	Time-weighted average exposure limit, calculated	496 ppm

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 ³
	Time-weighted average exposure limit 8 h	1000 ppm 1920 mg/m ³

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Limit Value (Belgium)

Dimethylether	Short time value	- ppm - mg/m ³
	Time-weighted average exposure limit 8 h	1000 ppm 1920 mg/m ³
Alifatische koolwaterstoffen in gasvorm: alkanen (C1-C4)	Short time value	- ppm - mg/m ³
	Time-weighted average exposure limit 8 h	1000 ppm - mg/m ³

TLV (USA)

Aliphatic hydrocarbon gases - alkanes(C1-C4)	Short time value	- mg/m ³
	Time-weighted average exposure limit 8 h	1000 mg/m ³

TRGS 900 (Germany)

Isobutan	Time-weighted average exposure limit 8 h	1000 ppm 2400 mg/m ³
Dimethylether	Time-weighted average exposure limit 8 h	1000 ppm 1900 mg/m ³
Propan	Time-weighted average exposure limit 8 h	1000 ppm 1800 mg/m ³

Limit Value (France)

Oxyde de diméthyle	Short time value	- ppm - mg/m ³
	Time-weighted average exposure limit 8 h	1000 ppm 1920 mg/m ³

Limit Value (UK)

Isocyanates, all (as -NCO)	Short time value	-(-NCO) ppm 0.07(-NCO) mg/m ³
	Time-weighted average exposure limit 8 h	-(-NCO) ppm 0.02(-NCO) mg/m ³
Dimethyl ether	Short time value	500 ppm 958 mg/m ³
	Time-weighted average exposure limit 8 h	400 ppm 766 mg/m ³

8.1.2 Sampling methods:

Product name	Test	Number
Ethyl Methyl Ether	OSHA	CSI
Isocyanates	NIOSH	5522
Isocyanates	NIOSH	5521
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:

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

c) Eye protection:

Protective goggles

d) Skin protection:

Head/neck protection

Protective clothing

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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 density	0.95
Solubility in solvents	Soluble in organic solvents

9.3 Other information:

10. Stability and reactivity

10.1 Conditions to avoid:

Possible fire hazard

heat sources
ignition sources

Stability

Stable under normal conditions

Reactions

May polymerize with many compounds e.g.: (strong) bases and amines
Reacts violently with (some) acids/bases

10.2 Materials to avoid:

(strong) acids
(strong) bases

10.3 Hazardous decomposition products:

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, hydrogen chloride, carbon monoxide - carbon dioxide)
On heating: release of toxic/combustible gases/vapours (hydrogen cyanide)

11. Toxicological information

11.1 Acute toxicity:

propane

LC50 inhalation (rat)	513 mg/l/4h
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dimethyl ether

LC50 inhalation (rat)	309 mg/l/4h
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polymethylene polyphenyl isocyanate

LD50 oral (rat)	> 10000 mg/kg
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isobutane

LC50 inhalation (rat)	> 50 mg/l/4h
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11.2 Chronic toxicity:

Prolonged exposure: danger of damage to health through inhalation
No certainty about human carcinogenic properties
Not listed in mutagenicity class (EC, MAK)
Not classified as toxic to reproduction (EC)
May cause harm to breastfed babies

propane

MAK - Schwangerschaft Gruppe	D
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dimethyl ether

MAK - Schwangerschaft Gruppe	D
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polymethylene polyphenyl isocyanate

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EC carc cat	3
IARC - classification	3
MAK - Krebserzeugend Kategorie	4
MAK - Schwangerschaft Gruppe	C
CLP carc cat	category 2

isobutane

MAK - Schwangerschaft Gruppe	D
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EC carc cat	3
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alkanes, C14-17, chloro;

IARC - classification	2B
MAK - Krebserzeugend Kategorie	3B
MAK - Schwangerschaft Gruppe	-

11.3 Acute effects/symptoms:

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

Skin contact:

Tingling/irritation of the skin

Eye contact:

Irritation of the eye tissue
Lacrimation

Ingestion:

Not applicable

11.4 Chronic effects:

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:

propane

LC50 fishes

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

dimethyl ether

LC50 fishes

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

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polymethylene polyphenyl isocyanate

LC50 fishes

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

Reacts by forming substances having a decreased toxicity

12.2 Mobility:

Volatile organic compounds (VOC)

20 %

Solubility in/reaction with water

Literature reports: insoluble in water

12.3 Persistence and degradability:

12.4 Bioaccumulative potential:

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)

13. Disposal considerations

13.1 Provisions relating to waste:

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

08 04 : wastes from MFSU of adhesives and sealants (including waterproofing products)

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:

Remove waste in accordance with local and/or national regulations

Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste.

Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals.

Specific treatment

Do not discharge into drains or the environment

13.3 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	no

RID

Proper shipping name	Aerosols
UN number	1950
Class	2
Packing group	
Classification code	5F
Labels	2.1
Environmentally hazardous substance mark	no

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ADN

Proper shipping name	Aerosols
UN number	1950
Class	2
Packing group	
Classification code	5F
Labels	2.1
Environmentally hazardous substance mark	no

IMO

Proper shipping name	Aerosols
UN number	1950
Class	2.1
Labels	2.1
Marine pollutant	-
Environmentally hazardous substance mark	no

ICAO

Proper shipping name	Aerosols
UN number	1950
Class	2.1
Packing group	
Labels	2.1
Environmentally hazardous substance mark	no

15. Regulatory information

15.1 EU Legislation:

DSD/DPD

On grounds of experience and test data, the classification for this preparation is less stringent than the one imposed by the criteria of the conventional method referred to in Directive 1999/45/EC



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
53	May cause long-term adverse effects in the aquatic environment
64	May cause harm to breastfed babies

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
61	Avoid release to the environment. Refer to special instructions/safety data sheets.

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(63)	(In case of accident by inhalation: remove casualty to fresh air and keep at rest)
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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.
	— 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.

15.2 National provisions:

The Netherlands

Waterbezwaarlijkheid (for NL)	8
Waste identification other lists of waste materials	LWCA (the Netherlands): KGA category 06

Germany

TA-Luft	propane: TA-Luft Klasse 5.2.5 dimethyl ether: TA-Luft Klasse 5.2.5 isobutane: TA-Luft Klasse 5.2.5 alkanes, C14-17, chloro.: TA-Luft Klasse 5.2.5/1
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:

REACH Annex XVII - Restriction	Contains component(s) included in Annex XVII of Regulation (EC) No. 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles
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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
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
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R53	May cause long-term adverse effects in the aquatic environment

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R64	May cause harm to breastfed babies
R66	Repeated exposure may cause skin dryness or cracking

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.
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.
H362	May cause harm to breast-fed children.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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

Acute Tox.	Acute toxicity
Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Carc.	Carcinogenicity
Eye Irrit.	Eye irritation
Flam. Gas	Flammable gas
Lact.	Reproductive toxicity - effects on or via lactation
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