SAFETY DATA SHEET

Based on Directive 91/155/EEC et seq. of the Commission of the European Communities

Silicone Spray

1. Identification of the substance/preparation and the company

1.1 Identification of the substance or preparation

Synonyms : None

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) 14-42 42 31
Fax : (+32) 14-44 39 71

1.3 Telephone number for emergency:

(+32) 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)
naphtha (petroleum), hydrotreated light (conc benzene < 0.1%)	64742-49-0	<= 25	F+;Xn;N	12-51/53-65-66 (Labelling according to CONCAWE)
butane	106-97-8	< 20	F+	12
propane	74-98-6	< 20	F+	12

3. Hazards identification

- Extremely flammable
- Repeated exposure may cause skin dryness or cracking
- Vapours may cause drowsiness and dizziness
- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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 allow vomiting
- Seek medical advice

5. Fire-fighting measures

5.1 Suitable extinguishing media:
- Water spray
- Polyvalent foam
- BC powder
- Carbon dioxide

5.2 Unsuitable extinguishing media:
- Solid water jet ineffective as extinguishing medium

5.3 Special exposure hazards:
- On burning: CO and CO2 are formed
- 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:
- Take account of toxic firefighting water
- Use firefighting water moderately and contain it
- 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:
- Take up liquid spill into absorbent material e.g.: sand/earth
- Take collected spill to competent authority
- Wash clothing and equipment after handling

7. Handling and storage

7.1 Handling:
- Observe strict hygiene
- In case of insufficient ventilation: keep naked flames/sparks away
- Remove contaminated clothing immediately
- Clean contaminated clothing

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

Storage temperature: < 50**°C**

7.3 Materials for packaging:
- suitable : aerosol

8. Exposure controls/Personal protection

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

8.2 Exposure limits:

BUTANE:

TLV-TWA	: -	**mg/m³**	800	**ppm**
TLV-STEL	: -	**mg/m³**	-	**ppm**
TLV-Ceiling	: -	**mg/m³**	-	**ppm**
OES-LTEL	: 1450	**mg/m³**	600	**ppm**
OES-STEL	: 1810	**mg/m³**	750	**ppm**
MAK	: 2400	**mg/m³**	1000	**ppm**
TRK	: -	**mg/m³**	-	**ppm**
MAC-TGG 8 h	: 1430	**mg/m³**		
MAC-TGG 15 min.	: -	**mg/m³**		
MAC-Ceiling	: **-**	**mg/m³**		
VME-8 h	: 1900	**mg/m³**	800	**ppm**
VLE-15 min.	: -	**mg/m³**	-	**ppm**
GWBB-8 h	: 1928	**mg/m³**	800	**ppm**
GWK-15 min.	: -	**mg/m³**	-	**ppm**
Momentary value	: -	**mg/m³**	-	**ppm**
EC	: -	**mg/m³**	-	**ppm**
EC-STEL	: -	**mg/m³**	-	**ppm**

PROPANE:

TLV-TWA	: -	**mg/m³**	2500	**ppm**
TLV-STEL	: -	**mg/m³**	-	**ppm**
TLV-Ceiling	: -	**mg/m³**	-	**ppm**
OES-LTEL	: -	**mg/m³**	-	**ppm**
OES-STEL	: -	**mg/m³**	-	**ppm**
MAK	: 1800	**mg/m³**	1000	**ppm**
TRK	: -	**mg/m³**	-	**ppm**
MAC-TGG 8 h	: -	**mg/m³**		
MAC-TGG 15 min.	: -	**mg/m³**		
MAC-Ceiling	: **-**	**mg/m³**		
VME-8 h	: -	**mg/m³**	-	**ppm**
VLE-15 min.	: -	**mg/m³**	-	**ppm**
GWBB-8 h	: -	**mg/m³**	-	**ppm**
GWK-15 min.	: -	**mg/m³**	-	**ppm**
Momentary value	:	**mg/m³**	-	**ppm**
EC	: -	**mg/m³**	-	**ppm**
EC-STEL	: -	**mg/m³**	-	**ppm**

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	:	Solvent	
9.3 Colour	:	Colourless	
9.4 pH value	:	N.D.	
9.5 Boiling point/boiling range	:	N.D.	**°C**
9.6 Melting point/melting range	:	N.D.	**°C**
9.7 Flashpoint	:	Contains (highly) flammable component	
9.8 Auto-ignition point	:	N.D.	**°C**
9.9 Explosion limits	:	1.4/9	**Vol% (°C)**
9.10 Vapour pressure (at 20°C)	:	3500	**hPa**
9.11 Relative density (at 20°C)	:	0.58	
9.12 Water solubility	:	Insoluble	
9.13 Soluble in	:	No data available	
9.14 Relative vapour density	:	N.D.	
9.15 Saturation concentration	:	N.D.	**g/m^3**
9.16 Viscosity	:	N.D.	**Pa.s**

10. Stability and reactivity

10.1 Stability:
- Unstable on exposure to heat

10.2 Reactivity/Hazardous decomposition products:
- On burning: CO and CO2 are formed

10.3 Conditions/materials to avoid:
- Heat sources, ignition sources, oxidizing agents, acids, bases

11. Toxicological information

11.1 Acute toxicity:

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**
LC50 inhalation rat	:	N.D.	**ppm/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**
LC50 inhalation rat	:	280000	**ppm/4 h**

11.2 Chronic toxicity:

EC carc. cat.	:	not listed
EC muta. cat.	:	not listed
EC repr. cat.	:	not listed
Carcinogenicity (TLV)	:	not listed
Carcinogenicity (MAC)	:	not listed
Carcinogenicity (VME)	:	not listed
Carcinogenicity (GWBB)	:	not listed
Carcinogenicity (MAK)	:	not listed
Mutagenicity (MAK)	:	not listed
Teratogenicity (MAK)	:	Group -
IARC classification	:	not listed

Obligatory medical control (ARAB-RGPT Belgium Art. 124):
Group: I Number: 21

11.3 Routes of exposure: inhalation, eyes and skin

11.4 Acute effects/symptoms (upon overexposure) :
- Practically non-toxic

AFTER INHALATION:
- Vapours may cause drowsiness and dizziness

EXPOSURE TO HIGH CONCENTRATIONS:
- Irritation of the respiratory tract
- Irritation of the nasal mucous membranes
- CNS depression
- Headache
- Dizziness
- Feeling of weakness
- Narcosis

AFTER SKIN CONTACT:
ON CONTINUOUS EXPOSURE/CONTACT:
- Dry skin
- Cracking of the skin

AFTER EYE CONTACT:
- Severely irritant to eyes
- Inflammation/damage of the eye tissue

11.5 Chronic effects:
- No data available

12. Ecological information

12.1 Mobility:

- **Volatile organic compounds (VOC):** > 33%
- Insoluble in water

12.2 Biodegradation:

- **BOD_5 :** N.D. **% ThOD**
- **Water :** - Not readily biodegradable in water
- **Soil :** **T ½:** N.D. **days**

12.3 Bioaccumulation: **- log P_{ow} :** N.D.
- BCF : N.D.

12.4 Aquatic toxicity:

- No data available

12.5 Other information:

- **WGK:** 2 (Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 17 May 1999)
- **Effect on the ozone layer (Council Regulation (EC) No 3093/94):** none
- **Greenhouse effect:** No data available
- **Effect on waste water purification:** No data available

13. Waste disposal considerations

13.1 Provisions relating to waste:
- Waste material code (Flanders): 015, 651
- Hazardous waste (91/689/EEC)
- Residual oils

13.2 Disposal methods:
- Specific treatment
- Do not discharge into drains or the environment

13.3 Packaging:
- Waste material code (91/689/EEC): 15 01 10

14. Transport information



14.1 Proper shipping name: UN 1950, Aerosols

14.2 Transport by road/rail (ADR/RID): class 2, 5 F
Danger code: -
Danger labels on tanks : -
Danger labels on packages : 3

14.3 Substance identification number (UN number): 1950
Packing: -

14.4 Maritime transport (IMDG code): class 2.1 p 2102
EMS : 2-13
MFAG : 620
Marine pollutant : P

14.5 Inland navigation (ADNR) : class 2, 5 F

14.6 Air freight (ICAO) : class 2.1
Instruction "passenger" : 203/Y203
Instruction "cargo" : 203

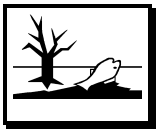
14.7 Other information:
When substances and their packaging meet the conditions established by ADR/RID marginal 2201a, **only** the following prescriptions shall be complied with:
each package shall display a diamond-shaped figure with the following inscription:
- 'UN 1950'
or, in the case of different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

15. Regulatory information

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



Extremely flammable



Dangerous for the environment

R51/53 : Toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment
R66 : Repeated exposure may cause skin dryness or cracking
R67 : Vapours may cause drowsiness and dizziness

S23 : Do not breathe spray
S24 : Avoid contact with skin
S51 : Use only in well ventilated area
S61 : Avoid release to the environment. Refer to special instructions/safety data sheets.

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.
Do not spray on a naked flame or any incandescent material.

16. Other information

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

N.A. = NOT APPLICABLE
N.D. = NOT DETERMINED
***** = INTERNAL CLASSIFICATION

(******) **Labelling:**
The labelling of the substance described in this MSDS complies with the provisions of Directive 1999/45/EC of 31 May 1999, published in the Official Journal of the European Communities L 200 of 30/07/1999. This Directive replaces Directive 88/379/EEC of 7 June 1988, published in the Official Journal of the European Communities L 187 of 16/07/1988.
Member States shall apply the laws, regulations and administrative provisions referred to in article 22 of this Directive:
(a) to preparations not within the scope of Directive 91/414/EEC or Directive 98/8/EC as from 30 July 2002; and
(b) to preparations within the scope of Directive 91/414/EEC or Directive 98/8/EC as from 30 July 2004.

Exposure limits:

TLV	:	Threshold Limit Value - ACGIH US 2000
OES	:	Occupational Exposure Standards - United Kingdom 1999
MEL	:	Maximum Exposure Limits - United Kingdom 1999
MAK	:	Maximale Arbeitsplatzkonzentrationen - Germany 2000
TRK	:	Technische Richtkonzentrationen - Germany 2000
MAC	:	Maximale aanvaarde concentratie - the Netherlands 2000
VME	:	Valeurs limites de Moyenne d'Exposition - France 1999
VLE	:	Valeurs limites d'Exposition à court terme - France 1999
GWBB	:	Grenswaarde beroepsmatige blootstelling - Belgium 1998
GWK	:	Grenswaarde kortstondige blootstelling - Belgium 1998
EC	:	Indicative occupational exposure limit values - directive 2000/39/EC

I : Inhalable fraction = **T** : Total dust = **E** : Einatembarer Aerosolanteil
R : Respirable fraction = **A** : Alveolengängiger Aerosolanteil/Alveolar dust
C : Ceiling limit

a:	aerosol		**p:**	poussière	(dust)
d:	damp	(vapour)	**r:**	rook	(fume)
du:	dust		**st:**	stof	(dust)
fa:	Faser	(fibre)	**ve:**	vezel	(fibre)
fi:	fibre		**va:**	vapour	
fu:	fume				

Chronic toxicity:

K	:	List of the carcinogenic substances and processes - The Netherlands 2000

MSDS established : 06-03-2001
Reference number : BIG\34841GB

Revision date : -
Revision number : 00
Reason for revision : -