

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

1.1 Product identifier

Trade name: Lobosil Spray

1.2 Relevant identified uses of the substance or mixture and uses advised against

General use: Release and lubricating agents for textile industry
Product is designed for industrial use only.

1.3 Details of the supplier of the safety data sheet

Company name: L. Böwing GmbH
Street/POB-No.: Rheingaubogen 34
Postal Code, city: DE-65239 Hochheim a. Main
E-mail: info@boewing.de
Telephone: +49 (0)6146 90 99-500
Telefax: +49 (0)6146 90 99-5099
Department responsible for information:
Telephone: +49 (0)6146 90 99-500, E-mail: info@boewing.de

1.4 Emergency telephone number

Telephone: +49 (0)6146 90 99-500,
Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

Aerosol 1; H222; H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

2.2 Label elements

Labelling (CLP)



Signal word:	Danger
Hazard statements:	H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated.
Precautionary statements:	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. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

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2.3 Other hazards

Propellant: Contact with the product can cause cold burns or frostbite.
Potentially explosive mixtures may form if adequate ventilation is not provided.
Inhaling can lead to irritations of the respiratory tract and mucous membrane.
Higher doses may lead to a narcotic effect.

Results of PBT and vPvB assessment:

No data available

SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterisation: Preparation with Polydimethylsiloxane and propellant.

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 203-448-7 CAS 106-97-8	n-Butane, pure	>= 50 %	Flam. Gas 1; H220. Press. Gas (Liq.); H280.
EC No. 200-827-9 CAS 74-98-6	Propane	5 - 10 %	Flam. Gas 1; H220. Press. Gas (Comp.); H280.

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: IF exposed or concerned: Get medical advice/attention. First aider: Pay attention to self-protection!

In case of inhalation: Move victim to fresh air. If breathing becomes irregular or ceases, apply rescue breathing or artificial respiration immediately, where required supply oxygen. Seek medical attention.

Following skin contact: After contact with skin, wash immediately with soap and plenty of water. Cover frostbitten skin with sterile tissue. Immediately get medical attention.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation causes narcotic effects/intoxication.
In case of prolonged exposure: Nausea, drowsiness, headache, agitation, fatigue, dizziness, unconsciousness.
In case of high vapour concentrations: CNS disorders, unconsciousness.
Even short-term inhalation of larger quantities of gas may cause death. Risk of suffocation!

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Water spray jet, foam, extinguishing powder, carbon dioxide

Extinguishing media which must not be used for safety reasons:

Full water jet

5.2 Special hazards arising from the substance or mixture

Extremely flammable aerosol. Pressurised container: May burst if heated. Vapours form explosive mixtures with air.

In case of fire may be liberated: silicon dioxide, carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information:

Hazchem-Code: -

Heating will lead to pressure increase: Danger of bursting and explosion. Use fine water spray to cool endangered containers.

Move undamaged containers from immediate hazard area if it can be done safely.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Do not allow fire water to penetrate into surface or ground water.

Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe spray. Avoid contact with the substance.

In case of leakage, eliminate all ignition sources. Provide adequate ventilation.

Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Keep unprotected people away.

Cordon off downwind area at risk and warn inhabitants.

6.2 Environmental precautions

Do not allow to enter soil, sewage, water bodies, lower level rooms or pits.

Danger of explosion!

In case of release, notify competent authorities.

6.3 Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Beware of reignition. Thoroughly clean surrounding area.

In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out).

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe spray. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation. When handling large quantities, supply emergency spray.

Precautions against fire and explosion:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place. Protect from heat and direct sunlight. Keep container dry. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store containers in upright position.

Hints on joint storage:

Keep away from food, drink and animal feedingstuffs. Keep away from combustible material. Keep away from combustible materials. strong oxidizing agents

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
106-97-8	n-Butane, pure	Great Britain: WEL-STEL	1810 mg/m ³ ; 750 ppm
		Great Britain: WEL-TWA	1450 mg/m ³ ; 600 ppm

8.2 Exposure controls

Provide good ventilation and/or an exhaust system in the work area.

Personal protection equipment

Occupational exposure controls

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded. Use filter type A (= against vapours of organic substances) according to EN 14387. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection: Recommendation: Protective gloves according to EN 374. Glove material: butyl caoutchouc (butyl rubber) - Breakthrough time: 480 min. Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to EN 166.

Body protection: Flame retardant, antistatic and chemical resistant protective clothing.

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General protection and hygiene measures:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source.

Do not breathe spray. Do not get in eyes, on skin, or on clothing.

When using do not eat or drink. Contaminated work clothing should not be allowed out of the workplace.

Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse.

When handling large quantities, supply emergency spray.

Environmental exposure controls

Do not allow to penetrate into soil, waterbodies or drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Physical state at 20 °C and 101.3 kPa: liquid Form: Aerosol with compressed propellant Colour: colourless, clear
Odour:	characteristic
Odour threshold:	No data available
pH:	No data available
Melting point/freezing point:	(n-Butane) -138 °C
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	(n-Butane) -60 °C
Evaporation rate:	No data available
Flammability:	Extremely flammable aerosol.
Explosion limits:	LEL (Lower Explosion Limit): 1.50 Vol-% UEL (Upper Explosive Limit): 15.00 Vol-%
Vapour pressure:	at 20 °C: 2700 hPa at 50 °C: 7300 hPa
Vapour density:	No data available
Density:	at 20 °C: 0.6 g/mL
Water solubility:	at 20 °C: practically insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	not self-igniting
Decomposition temperature:	> 250°C (Polydimethylsiloxane)
Viscosity, kinematic:	No data available
Explosive properties:	Vapours can form explosive mixtures with air.
Oxidizing characteristics:	No data available

9.2 Other information

Ignition temperature: (n-Butane) 365 °C (DIN 51794)

SECTION 10: Stability and reactivity

10.1 Reactivity

Extremely flammable aerosol.

Vapours can form explosive mixtures with air.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Pressurised container: May burst if heated.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

10.5 Incompatible materials

Reacts violently with strong oxidizing agents.

10.6 Hazardous decomposition products

For the silicone component:
Measurements taken at temperatures exceeding 150 °C have revealed that a small quantity of formaldehyde splits off through oxidative decomposition.

Thermal decomposition: > 250°C (Polydimethylsiloxane)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity: LD50 Rat, oral: > 5000 mg/kg (Literature)
LD50 Rat, dermal: > 2008 mg/kg (ext. test report)

Toxicological effects: Acute toxicity (oral): Based on available data, the classification criteria are not met.
Acute toxicity (dermal): Based on available data, the classification criteria are not met.
Acute toxicity (inhalative): Lack of data.
Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Not an irritant (Rabbit; ext. test report)
Serious eye damage/irritation: Based on available data, the classification criteria are not met.
Mild irritant (Rabbit; ext. test report)
Sensitisation to the respiratory tract: Lack of data.
Skin sensitisation: Based on available data, the classification criteria are not met. Not sensitising (Method Magnusson-Klingmann, Guinea pig - ext. test report)
Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.
No mutagenity, after different in-vitro studies. (OECD 471)
Carcinogenicity: Based on available data, the classification criteria are not met.
Rat, oral, NOAEL: >= 1000 mg/kg (Polydimethylsiloxane)
Reproductive toxicity: Based on available data, the classification criteria are not met.
Rabbit, oral, NOAEL: >= 1000 mg/kg (Polydimethylsiloxane)
Effects on or via lactation: Lack of data.
Specific target organ toxicity (single exposure): Lack of data.
Specific target organ toxicity (repeated exposure): Lack of data.
Aspiration hazard: Lack of data.

Symptoms

In case of inhalation:
Information about n-Butane: Inhalation causes narcotic effects/intoxication.
In case of prolonged exposure: Nausea, drowsiness, headache, agitation, fatigue, dizziness, unconsciousness.
In case of high vapour concentrations: CNS disorders, unconsciousness.
Even short-term inhalation of larger quantities of gas may cause death. Risk of suffocation!
After contact with skin:
In case of spraying: Contact with the product can cause cold burns or frostbite.

General remarks

For the silicone component:
Physiologically benign according to current data (not a mutagen, carcinogen or teratogen).

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: According to experience to date, toxicity to fish is not expected.

12.2 Persistence and degradability

Further details: For the silicone component:
Product is not biodegradable. Polydimethylsiloxane are to a certain extent partly degradable through abiotic processes.

Effects in sewage plants: According to current data, no harmful effects are expected with release to sewage treatment facility.

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:
No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

General information: Do not allow to penetrate into soil, waterbodies or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 16 05 04* = Gases in pressure containers (including halons) containing hazardous substances
* = Evidence for disposal must be provided.

Recommendation: Special waste. Dispose of waste according to applicable legislation.

Package

Waste key number: 15 01 10* = packaging containing residues of or contaminated by dangerous substances
* = Evidence for disposal must be provided.

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Recommendation: Handle contaminated packages in the same way as the substance itself.
Handle empty containers with care. Incineration may cause explosion.

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR:

UN 1950

14.2 UN proper shipping name

ADR/RID, IMDG:

UN 1950, AEROSOLS

IATA-DGR:

UN 1950, AEROSOLS, FLAMMABLE

14.3 Transport hazard class(es)

ADR/RID:

Class 2, Code: 5F

IMDG:

Class 2, Subrisk -, see SP63

IATA-DGR:

Class 2.1



14.4 Packing group

ADR/RID, IATA-DGR:

not applicable

IMDG:

-

14.5 Environmental hazards

Marine pollutant:

no

14.6 Special precautions for user

Land transport (ADR/RID)

Warning board:

RID: Kemmler-number 23, UN number UN 1950

Hazard label:

2.1

Special provisions:

190 327 344 625

Limited quantities:

1 L

EQ:

E0

Package - Instructions:

P207 LP200

Package - Special provisions:

PP87 RR6 L2

Special provisions for packing together:

MP9

Tunnel restriction code:

D

Sea transport (IMDG)

EmS:

F-D, S-U

Special provisions:

63, 190, 277, 327, 344, 381, 959

Limited quantities:

See SP277

Excepted quantities:

E0

Package - Instructions:

P207, LP200

Package - Provisions:

PP87, L2

IBC - Instructions:

-

IBC - Provisions:

-

Tank instructions - IMO:

-

Tank instructions - UN:

-

Tank instructions - Provisions:

-

Stowage and handling:

SW1 SW22

Segregation:

SG69

Properties and observations:

-

Segregation group:

none

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Air transport (IATA)

Hazard label:	Flamm. gas
Excepted Quantity Code:	E0
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y203 - Max. Net Qty/Pkg. 30 kg G
Passenger and Cargo Aircraft:	Pack.Instr. 203 - Max. Net Qty/Pkg. 75 kg
Cargo Aircraft only:	Pack.Instr. 203 - Max. Net Qty/Pkg. 150 kg
Special provisions:	A145 A167 A802
Emergency Response Guide-Code (ERG):	10L

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: -
No data available

National regulations - EC member states

Volatile organic compounds (VOC):
91.6 % by weight (= 218g/400ml)

Further regulations, limitations and legal requirements:
Use restriction according to REACH annex XVII, no.: 3, 40, 75
Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]: P3a

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

SECTION 16: Other information

Further information

Wording of the H-phrases under paragraph 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.

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Abbreviations and acronyms:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL: Occupational Exposure Limit Value
AS/NZS: Australian Standards/New Zealand Standards
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
CNS: Central Nervous System
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
EC: European Community
EN: European Standard
EU: European Union
IATA: International Air Transport Association
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IMDG Code: International Maritime Dangerous Goods Code
LD50: Lethal dose 50%
LEL: Lower Explosion Limit
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OSHA: Occupational Safety and Health Administration
PBT: Persistent, bioaccumulative and toxic
PNEC: Predicted no-effect concentration
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
TLV: Threshold Limit Value
UN: United Nations
vPvB: Very persistent and very bioaccumulative
WEL: Workplace Exposure Limit
CNS: Central Nervous System

Reason of change: Changes in section 14: General revision

Date of first version: 28/8/2007

Department issuing data sheet

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.