

1 Identification

- **Product identifier**
- **Trade name:** SILICONE SPRAY
- **Application of the substance / the mixture**
Lubrication, anticorrosive
Only for proper handling.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
MOTOREX AG
Bern–Zürich–Strasse 31, Postfach
CH–4901 Langenthal
Tel. +41 (0)62 919 75 75
www.motorex.com
- **Information department:** msds@motorex.com
- **Emergency telephone number:**
USA + Canada: 1 800 424 9300 (Chemtrec Chemical Manufacturers Association, Arlington, VA 22209)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flammable Aerosols 1 H222 Extremely flammable aerosol.
Specific Target Organ Toxicity - Single Exposure 3 H336 May cause drowsiness or dizziness.

Aspiration Hazard 1 H304 May be fatal if swallowed and enters airways.

- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02 GHS07 GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics
isopentane
- **Hazard statements**
H222 Extremely flammable aerosol.
H336 May cause drowsiness or dizziness.
H304 May be fatal if swallowed and enters airways.
- **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P271 Use only outdoors or in a well-ventilated area.
P301+P310 If swallowed: Immediately call a poison center/doctor.
P331 Do NOT induce vomiting.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a poison center/doctor if you feel unwell.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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P405 Store locked up.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**· **NFPA ratings (scale 0 - 4)**

Health = 0

Fire = 4

Reactivity = 0

· **HMS-ratings (scale 0 - 4)**

Health = 0

Fire = 4

Reactivity = 3

· **Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**· **Description:** Mixture of the substances listed below with nonhazardous additions.· **Dangerous components:**

CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0	butane, pure Flammable Gases 1, H220; Gases under Pressure - Compressed gas, H280	25-50%
EC number: 920-750-0	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics Flammable Liquids 2, H225; Aspiration Hazard 1, H304; Specific Target Organ Toxicity - Single Exposure 3, H336	25-50%
CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5	propane Flammable Gases 1, H220; Gases under Pressure - Compressed gas, H280	10-25%
CAS: 75-28-5 EINECS: 200-857-2 Index number: 601-004-00-0	isobutane Flammable Gases 1, H220; Gases under Pressure - Compressed gas, H280	1-2.5%

4 First-aid measures

· **Description of first aid measures**· **After inhalation:** Supply fresh air; consult doctor in case of complaints.· **After skin contact:** Generally the product does not irritate the skin.· **After eye contact:** Rinse opened eye for several minutes under running water.· **After swallowing:** If symptoms persist consult doctor.· **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
- **Protective Action Criteria for Chemicals**

· PAC-1:

106-97-8	butane, pure	5500* ppm
63148-62-9	Polydimethylsiloxane	65 mg/m ³
74-98-6	propane	5500* ppm
75-28-5	isobutane	5500* ppm
78-78-4	isopentane	3000* ppm

· PAC-2:

106-97-8	butane, pure	17000** ppm
63148-62-9	Polydimethylsiloxane	720 mg/m ³
74-98-6	propane	17000** ppm
75-28-5	isobutane	17000** ppm
78-78-4	isopentane	33000*** ppm

· PAC-3:

106-97-8	butane, pure	53000*** ppm
63148-62-9	Polydimethylsiloxane	4,300 mg/m ³
74-98-6	propane	33000*** ppm
75-28-5	isobutane	53000*** ppm
78-78-4	isopentane	200000*** ppm

· Reference to other sections

- See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
Do not spray on a naked flame or any incandescent material.

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- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
The recommended storage temperature is (deg.C): $\leq 50^{\circ}\text{C}$
Keep receptacle tightly sealed.
- **Storage class:** 2 B
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

106-97-8 butane, pure	
REL	Long-term value: 1900 mg/m ³ , 800 ppm
TLV	Short-term value: 1000 ppm (EX)
74-98-6 propane	
PEL	Long-term value: 1800 mg/m ³ , 1000 ppm
REL	Long-term value: 1800 mg/m ³ , 1000 ppm
TLV	see Appendix F Minimal oxygen content (D, EX)
75-28-5 isobutane	
TLV	Short-term value: 1000 ppm (EX)

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Additional information about design of technical systems:** No further data; see section 7.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Not necessary if room is well-ventilated.
Respiratory protection if formation of aerosol or mist: use mask with filter type A2, A2/P2 or ABEK.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.
- **Body protection:** Protective work clothing

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

- | | |
|---|--|
| · Color: | Colorless |
| · Odor: | Solvent-like |
| · Odor threshold: | Not determined. |
| · Melting point/Melting range: | Undetermined. |
| · Boiling point/Boiling range: | Not applicable, as aerosol. |
| · Flammability (solid, gaseous): | Not applicable. |
| · Explosion limits: | |
| · Lower: | 0.9 Vol % |
| · Upper: | 10.9 Vol % |
| · Flash point: | <-40 °C |
| · Auto igniting: | 310 °C (590 °F) (DIN 51794) |
| · Decomposition temperature: | Not determined. |
| · pH-value: | Not determined. |
| · Viscosity: | |
| · Kinematic: | < 1 mm ² /s @40 °C (DIN 51562-1) |
| · Consistency | |
| · Dynamic: | Not determined. |
| · Solubility in / Miscibility with | |
| · Water: | Not miscible or difficult to mix. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Vapor pressure at 20 °C (68 °F): | 8,300 hPa (6.200 mm Hg) |
| · Vapor pressure: | |
| · Density at 20 °C (68 °F): | 0.65 g/cm ³ (5.424 lbs/gal) (ASTM D 4052) |
| · Relative density | Not determined. |
| · Vapor density | Not determined. |

· Other information

- | | |
|--|--|
| · Appearance: | |
| · Form: | Liquefied gas |
| · Important information on protection of health and environment, and on safety. | |
| · Danger of explosion: | Product is not explosive. However, formation of explosive air/vapor mixtures are possible. |
| · Solvent separation test | |
| · VOC content: | 86.80 % |
| · VOC (EU) | 86.26 % |
| · Change in condition | |
| · Evaporation rate | Not applicable. |

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.

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- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.

· LD/LC50 values that are relevant for classification:

106-97-8 butane, pure

Inhalative	LC50 / 15 min	1,442.738-1.443 mg/l (rat)
	LC50 / 15 min	800,000 ppm (rat)
	LC50 / 2h	1,237 mg/l (mouse)
	LC50 / 2h	520,400-539,600 ppm (mouse)
	LC50 / 4h	658 mg/l (rat)
	NOAEC	4,000-16,000 ppm (rat)
	NOAEC	7.2-21.4 mg/l (rat)
	LOAEC	21.6 mg/l (rat)
	LOAEC	12,000 ppm (rat)

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Oral	LD50	8 ml/kg (rat)
Dermal	LD50	4 ml/kg (rat)
	LD50	2,800-3,100 mg/kg (rat)
Inhalative	LC50 / 4h	23.3 mg/l (rat)
	NOAEC	5.8-24.3 mg/l (rat)

74-98-6 propane

Inhalative	LC50 / 15 min	1,442.738-1.443 mg/l (rat)
	LC50 / 15 min	800,000 ppm (rat)
	LC50 / 2h	1,237 mg/l (mouse)
	LC50 / 2h	520,400-539,600 ppm (mouse)
	NOAEC	4,000-16,000 ppm (rat)
	NOAEC	7.214-21.394 mg/l (rat)
	LOAEC	21.64 mg/l (rat)
	LOAEC	12,000 ppm (rat)

75-28-5 isobutane

Inhalative	LC50 / 15 min	1,442.738-1.443 mg/l (rat)
	LC50 / 15 min	800,000 ppm (rat)
	LC50 / 2h	1,237 mg/l (mouse)
	LC50 / 2h	520,400-539,600 ppm (mouse)
	NOAEC	4,000-16,000 ppm (rat)
	NOAEC	7.214-21.394 mg/l (rat)
	LOAEC	21.641 mg/l (rat)
	LOAEC	12,000 ppm (rat)

- **Specific target organ toxicity - single exposure** May cause drowsiness or dizziness.
- **Aspiration hazard** May be fatal if swallowed and enters airways.

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· **Additional toxicological information:**

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

106-97-8 butane, pure

LC50	24.1-147.5 mg/l/96h (fish)
LC50	14.2-69.4 mg/l/48h (aquatic invertebrates)
EC50	7.7-19.4 mg/l/96h (algae / cyanobacteria)

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

EC50	0.23 mg/l/21d (aquatic invertebrates)
EC50	0.64 mg/l/48h (aquatic invertebrates)
LL50	3-10 mg/l/96h (fish)
LL50	10-30 mg/l/72h (fish)
LL50	10-30 mg/l/48h (fish)
LL50	30-100 mg/l/24h (fish)
LL0	3 mg/l/96h (fish)
EL50	13 mg/l/96h (algae / cyanobacteria)
EL50	4.6-10 mg/l/48h (aquatic invertebrates)
	10-30 mg/l/48h (algae / cyanobacteria)
EL50	10-22 mg/l/24h (aquatic invertebrates)
	10-30 mg/l/24h (algae / cyanobacteria)
EL50	10-30 mg/l/72h (algae / cyanobacteria)
EL0	4.6 mg/l/48h (aquatic invertebrates)
EL0	10 mg/l/24h (aquatic invertebrates)
NOEC	0.17 mg/l/21d (aquatic invertebrates)
NOELR	0.574 mg/l/28d (fish)
NOELR	1 mg/l/21d (aquatic invertebrates)
NOELR	6.3 mg/l/96h (algae / cyanobacteria)
LOEC	0.32 mg/kg/28d (aquatic invertebrates)

74-98-6 propane

LC50	24.11-147.54 mg/l/96h (fish)
LC50	14.22-69.43 mg/l/48h (aquatic invertebrates)
EC50	7.71-19.37 mg/l/96h (algae / cyanobacteria)

75-28-5 isobutane

LC50	24.11-147.54 mg/l/96h (fish)
LC50	14.22-69.43 mg/l/48h (aquatic invertebrates)
EC50	7.71-19.37 mg/l/96h (algae / cyanobacteria)

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· **Persistence and degradability** No further relevant information available.

· **Bioaccumulative potential**

106-97-8 butane, pure

Partition coefficient 1.09-2.8 [---] (log Kow) (Bioaccumulation)

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Biologische Abbaubarkeit 98 % (28d) (Biodegradability) (OECD 301 F)

74-98-6 propane

Partition coefficient 1.09-2.8 [---] (log Kow) (Bioaccumulation)

75-28-5 isobutane

Partition coefficient 1.09-2.8 [---] (log Kow) (Bioaccumulation)

Biologische Abbaubarkeit 100 % (28d) (Biodegradability)

· **Mobility in soil** No further relevant information available.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects**

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (according to Appendix 1 AwSV): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

Return product and/or partially emptied container in original packaging to the point of sale or hand it over to a collection point for special waste.

· **Uncleaned packagings:**

· **Recommendation:**

Disposal must be made according to official regulations.

Discharged containers can contain flammable or explosive vapours.

14 Transport information

· **UN-Number**

· **DOT, ADR/RID/ADN, IMDG, IATA** UN1950

· **UN proper shipping name**

· **DOT** Aerosols, flammable

· **ADR/RID/ADN** 1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS

· **IMDG** AEROSOLS, MARINE POLLUTANT

· **IATA** AEROSOLS, flammable

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· **Transport hazard class(es)**· **DOT**

· **Class** 2.1 Gases
 · **Label** 2.1

· **ADR/RID/ADN**

· **Class** 2.1 Gases
 · **Label** 2.1

· **IMDG**

· **Class** 2.1 Gases
 · **Label** 2.1

· **IATA**

· **Class** 2.1 Gases
 · **Label** 2.1

· **Packing group**

· **DOT, ADR/RID/ADN, IMDG, IATA** Void

· **Environmental hazards:**

Product contains environmentally hazardous substances: Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

· **Marine pollutant:**

Yes
 Symbol (fish and tree)

· **Special marking (ADR/RID/ADN):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Gases

· **Hazard identification number (Kemler code): -**· **EMS Number:**

F-D,S-U

· **Stowage Code**

SW1 Protected from sources of heat.
 SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
 SG69 For AEROSOLS with a maximum capacity of 1 litre:
 Segregation as for class 9. Stow "separated from" class 1 except for division 1.4.
 For AEROSOLS with a capacity above 1 litre:
 Segregation as for the appropriate subdivision of class 2.

· **Segregation Code**

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Safety Data Sheet

acc. to OSHA HCS



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.	For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Remarks:	Special marking with the symbol (fish and tree).
· ADR/RID/ADN	
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**

106-97-8	butane, pure	ACTIVE
63148-62-9	Polydimethylsiloxane	ACTIVE
74-98-6	propane	ACTIVE
75-28-5	isobutane	ACTIVE
78-78-4	isopentane	ACTIVE

- **Hazardous Air Pollutants**

None of the ingredients is listed.

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

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· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The classification of the mixture was carried out by calculation in accordance with the rules laid down in Annex I of Regulation (EC) No 1272/2008.

No special training instructions to ensure protection of human health and environment are required.

· **Department issuing SDS:** Abteilung Produktsicherheit

· **Date of preparation / last revision** 05/26/2023

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flammable Gases 1: Flammable gases – Category 1

Flammable Aerosols 1: Aerosols – Category 1

Gases under Pressure - Compressed gas: Gases under pressure – Compressed gas

Flammable Liquids 2: Flammable liquids – Category 2

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

Aspiration Hazard 1: Aspiration hazard – Category 1

· *** Data compared to the previous version altered.**