

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 28.03.2017

Version number 1

Revision: 28.03.2017

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

- **1.1 Product identifier**
- **Trade name: Anti-Seize-Kupferspray**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Lubricant
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Fermit GmbH
Zur Heide 4,
D- 53560 Vettelschoß
www.fermit.de
- **Informing department:**
Tel.: +49 (0) 2645-2207
Fax: +49 (0) 2645-3113
Email: info@fermit.de
- **1.4 Emergency telephone number:** Tel.: +49 (0) 2645-2207

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Aerosol 1	H222-H229	Extremely flammable aerosol. Pressurised container: May burst if heated.
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GHS07

Skin Irrit. 2	H315	Causes skin irritation.
STOT SE 3	H336	May cause drowsiness or dizziness.
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.
Aquatic Chronic 3	H412	Harmful to aquatic life with long lasting effects.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02 GHS07

- **Signal word** Danger
- **Hazard-determining components of labelling:**
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

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- **Hazard statements**
 - H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
 - H315 Causes skin irritation.
 - H336 May cause drowsiness or dizziness.
 - H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
 - P102 Keep out of reach of children.
 - 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.
 - P280 Wear protective gloves/protective clothing/eye protection/face protection.
 - P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 - P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of the substances listed below including additives not requiring identification.

- **Dangerous components:**

CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27-X	isobutane ⚠ Flam. Gas 1, H220; Press. Gas C, H280	25 - 50%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21-X	propane ⚠ Flam. Gas 1, H220; Press. Gas C, H280	10 - 25%
CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32-X	butane ⚠ Flam. Gas 1, H220; Press. Gas C, H280	10 - 25%
EC number: 927-510-4 Reg.nr.: 01-2119475515-33-X	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics ⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	10-<25%

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation**
Supply fresh air.
In case of persistent symptoms consult doctor.
- **After skin contact**
Instantly wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
In cases of freeze burns, rinse with plenty of water. Do not remove clothing.
- **After eye contact**
Rinse opened eye for several minutes under running water.
In case of permanent aches and pains please go and see the doctor.
- **After swallowing** Swallowing is not considered to be a possible way of exposure.
- **4.2 Most important symptoms and effects, both acute and delayed**
drowsiness

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Dazed

- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
CO₂, extinguishing powder or water jet. Fight larger fire with alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture**
During incomplete combustion carbon monoxide can be formed.
Pressure build-up and risk of bursting when heated.
Vapours are heavier than air and may travel long distances along ground, ignite and flash back to source.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Do not inhale explosion gases or combustion gases.
In case of fire wear breathing equipment being independent of ambient air and suit provided full protection against chemicals.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter drains. Provide sufficient fire fighting water retention.
Cool endangered containers with water spray.
Remove goods in stock from incendiary zone, if possible.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Avoid contact with eyes, skin and clothes.
Ensure adequate ventilation
Keep away from sources of ignition - No smoking.
- **6.2 Environmental precautions:** Damp down gases/fumes/haze with water spray jet.
- **6.3 Methods and material for containment and cleaning up:** Ensure adequate ventilation.
- **6.4 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 information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Keep away from heat and direct sunlight.
Keep empty containers away from heat and ignition sources.
Avoid direct contact with eyes, skin and clothing.
- **Information about protection against explosions and fires:**
Beware: Container is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use.
Do not spray on flames or red-hot objects.
Keep away from sources of ignition - do not smoke.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**
Observe official regulations on storing packagings with pressurised containers.

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- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed containers.
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:**
WEL: workplace exposure limit

106-97-8 butane

WEL (Great Britain)	Short-term value: 1810 mg/m ³ , 750 ppm Long-term value: 1450 mg/m ³ , 600 ppm Carc (if more than 0.1% of buta-1.3-diene)
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- **DNELs**

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Oral	DNEL (consumer, long-term, systemic)	149 mg/kg bw/day (human)
Dermal	DNEL (worker, long-term, systemic)	300 mg/kg bw/day (human)
	DNEL (consumer, long-term, systemic)	149 mg/kg bw/day (human)
Inhalative	DNEL (worker, long-term, systemic)	2085 mg/m ³ (human)
	DNEL (consumer, long-term, systemic)	447 mg/m ³ (human)

- **Additional information:** The lists that were valid during the compilation were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment**

- **General protective and hygienic measures**

Do not eat, drink or smoke while working.
Wash hands during breaks and at the end of the work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

- **Breathing equipment:**

Not necessary if room is well-ventilated.
Use breathing protection in case of insufficient ventilation.
Filter AX.

- **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
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.

- **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.

- **For the permanent contact gloves made of the following materials are suitable:**

Nitrile rubber, NBR
Fluorocarbon rubber (Viton)

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· Eye protection:


Tightly sealed safety glasses.

· Body protection:

Wear antistatic clothing made from natural fibres (cotton) or heat-resistant synthetic fibres.

· Limitation and supervision of exposure into the environment

Avoid the uncontrolled release into the environment.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties
· General Information
· Appearance:

Form:	Aerosol
Colour:	Copper coloured
Odour:	Characteristic
Odour threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not applicable, as aerosol

· Flash point: max. -80 °C

· Inflammability (solid, gaseous) Not applicable.

· Ignition temperature:
Decomposition temperature: Not determined.

· Self-inflammability: Product is not selfigniting.

· Explosive properties: Not determined.

· Critical values for explosion:

Lower:	1.4 Vol %
Upper:	10.8 Vol %

· Vapour pressure: Not determined.

· Density ca. 0.972 g/cm³
· Evaporation rate Not applicable.

· Solubility in / Miscibility with
Water: Not miscible or difficult to mix

· Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

dynamic:	Not determined.
kinematic:	Not determined.

· Solvent content:

Organic solvents:	13.38 %
VOC EU	485 g/l
VOC EU	72.11 %

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- **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
Avoid direct sunlight, heat and ignition sources.
- **10.3 Possibility of hazardous reactions**
Danger of containers bursting because of high vapour pressure
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Strong oxidizing agents
- **10.6 Hazardous decomposition products:**
None in case of intended use and storage in compliance with instructions.

SECTION 11: Toxicological information

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

- **LD/LC50 values that are relevant for classification:**

75-28-5 isobutane

Inhalative	LC50	1237 mg/l/2h (mouse)
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Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Oral	LD50	> 5840 mg/kg (rat)
Dermal	LD50	> 2800 mg/kg (rat)
Inhalative	LC50	> 23.3 mg/l/4h (rat) (OECD 403)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation** Irritation in case of direct contact
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

- **Repeated dose toxicity**

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Inhalative	NOAEC (90d)	1600 mg/m ³ (rat)
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- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard**
May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

EC50 (static)	3 mg/l/48h (Daphnia magna) (OECD 202)
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LC50	> 13.4 mg/l/96h (Oncorhynchus mykiss) (OECD 203)
EC50 (static)	12 mg/l/72h (Pseudokirchneriella subcapitata) (OECD 201)

- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:** There are no data available about the preparation.
- **Behaviour in environmental systems:**
- **Components:**
A product that has flown out can lead to the formation of a film on the water surface which reduces the oxygen exchange and results in the organisms dying-off.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
Do not allow product to reach ground water, water bodies or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Proceed according to local, official regulations.
The waste code numbers mentioned are recommendations based on the probable use of the product.

- **European waste catalogue**

16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 05 00	gases in pressure containers and discarded chemicals
16 05 04*	gases in pressure containers (including halons) containing hazardous substances
14 00 00	WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (EXCEPT 07 AND 08)
14 06 00	waste organic solvents, refrigerants and foam/aerosol propellants
14 06 03*	other solvents and solvent mixtures

- **Uncleaned packagings:**
- **Recommendation:**
After use the packaging shall be discharged completely.
Dispose of packaging according to regulations on the disposal of packagings.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1950
- **14.2 UN proper shipping name**
- **ADR** 1950 AEROSOLS
- **IMDG** AEROSOLS
- **IATA** AEROSOLS, flammable

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· 14.3 Transport hazard class(es)
· ADR


- **Class** 2 5F Gases.
- **Label** 2.1

· IMDG, IATA


- **Class** 2.1
- **Label** 2.1

· 14.4 Packing group

- **ADR, IMDG, IATA** Void

· 14.5 Environmental hazards:

- **Marine pollutant:** No

· 14.6 Special precautions for user

- **Warning:** Gases.
- **Kemler Number:** -
- **EMS Number:** F-D,S-U

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

Not applicable.

· Transport/Additional information:
· ADR

- **Limited quantities (LQ)** 1L
- **Excepted quantities (EQ)** Code: E0
Not permitted as Excepted Quantity
- **Transport category** 2
- **Tunnel restriction code** D

· IMDG

- **Limited quantities (LQ)** 1L
- **Excepted quantities (EQ)** Code: E0
Not permitted as Excepted Quantity

- **UN "Model Regulation":** UN 1950 AEROSOLS, 2.1

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

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Hazard pictograms


GHS02 GHS07

Signal word Danger

Hazard-determining components of labelling:

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P102 Keep out of reach of children.

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.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

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

Directive 2012/18/EU
Named dangerous substances - ANNEX I None of the ingredients is listed.

Seveso category P3a FLAMMABLE AEROSOLS

Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

National regulations
Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients is contained.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

Department issuing data specification sheet:

This Material Safety Data Sheet has been drawn up in cooperation with:

DEKRA Assurance Services GmbH, Hanomagstr. 12, D-30449 Hanover, Germany,

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· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
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)
DNEL: Derived No-Effect Level (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Flam. Gas 1: Flammable gases – Category 1
Aerosol 1: Aerosols – Category 1
Press. Gas C: Gases under pressure – Compressed gas
Flam. Liq. 2: Flammable liquids – Category 2
Skin Irrit. 2: Skin corrosion/irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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