

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.10.2016

Version number 17

Revision: 13.10.2016

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

- **1.1 Product identifier**
- **Trade name:** *kLine Copper Paste Spray*
- **Article number:** *6420410*
- **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:**
DKS Technik GmbH
Gnadenwald 90a
A-6069 Gnadenwald
Tel.: +43 (0) 5223 48488
Fax.: +43 (0) 522348488-50
www.dks.at
- **Further information obtainable from:**
E-Mail: office@dks.at
Tel.: +43 (0)522348488
- **1.4 Emergency telephone number:** *Tel.: +43(0)1 406 4343*

SECTION 2: Hazards identification

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



GHS02 flame

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



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



F+; Extremely flammable

R12: Extremely flammable.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Harmful: may cause lung damage if swallowed.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Version number 17

Trade name: kLine Copper Paste Spray

(Contd. of page 1)

· **Hazard pictograms**

GHS02 GHS07

· **Signal word** Danger· **Hazard statements**

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

H315 Causes skin irritation.

H412 Harmful to aquatic life with long lasting effects.

· **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

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 / eye protection / face protection.

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

P501 Dispose of contents/container to hazardous or special waste collection point.

· **Additional information:**

Buildup of explosive mixtures possible without sufficient ventilation.

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

SECTION 3: Composition/information on ingredients

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

CAS: 75-28-5 EINECS: 200-857-2	isobutane F+ R12	25-50%
	Flam. Gas 1, H220; Press. Gas, H280	
CAS: 74-98-6 EINECS: 200-827-9	propane F+ R12	10-20%
	Flam. Gas 1, H220; Press. Gas, H280	
EC number: 927-510-4 Reg.nr.: 01-2119475515-33-xxxx	Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes Xn R65; Xi R38; F R11; N R51/53 R67	2.5-10%
	Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	
EC number: 921-024-6 Reg.nr.: 01-2119475514-35-xxxx	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, < 5 % n-hexane Xn R65; Xi R38; F R11; N R51/53 R67	2.5-10%
	Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	
CAS: 106-97-8 EINECS: 203-448-7	butane F+ R12	2.5-10%
	Flam. Gas 1, H220; Press. Gas, H280	

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Version number 17

Trade name: kLine Copper Paste Spray

(Contd. of page 2)

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
Take affected persons into fresh air and keep quiet.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
Immediately remove any clothing soiled by the product.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **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:**
Foam
Fire-extinguishing powder
Carbon dioxide
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
Can form explosive gas-air mixtures.
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **6.4 Reference to other sections** See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Avoid contact with skin and eyes.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Version number 17

Trade name: **kLine Copper Paste Spray**

(Contd. of page 3)

- **Information about fire - and explosion protection:**
 Keep ignition sources away - Do not smoke. Protect against electrostatic charges.
 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 onto a naked flame or any incandescent material.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 Store in a cool location.
 Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

· 8.1 Control parameters

- **Ingredients with limit values that require monitoring at the workplace:**

106-97-8 butane

WEL	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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- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Do not inhale gases / fumes / aerosols.
 Avoid contact with the eyes and skin.
- **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.
- **Recommended filter device for short term use:** Filter AX
- **Protection of hands:**
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- **Material of gloves**
 Nitrile rubber, NBR
 Recommended thickness of the material: ≥ 0.45 mm
- **Penetration time of glove material**
 ≥ 240 min
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

GB

(Contd. on page 5)

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

Version number 17

Trade name: **kLine Copper Paste Spray**

(Contd. of page 4)

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Aerosol
Colour:	Copper coloured
Odour:	Petrol-like

· Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: < 0 °C

· Flash point: Not applicable, as aerosol.

· Ignition temperature: >200 °C

· Danger of explosion: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· Density at 20 °C: 0.65421 g/cm³

· Solubility in / Miscibility with

water: Not miscible or difficult to mix.

Organic solvents: 71.4 %

VOC (EC) 467.4 g/l

· 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

· 10.1 Reactivity

· 10.2 Chemical stability

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· 10.3 Possibility of hazardous reactions No dangerous reactions known.

· 10.4 Conditions to avoid No further relevant information available.

· 10.5 Incompatible materials: No further relevant information available.

· 10.6 Hazardous decomposition products:

Aldehyde

Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

· Acute toxicity:

· LD/LC50 values relevant for classification:

75-28-5 isobutane

Inhalative	LC50/4 h	>50 mg/l (rat)
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74-98-6 propane

Inhalative	LC50/4 h	20 mg/l (rat)
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Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes

Oral	LD50	>5840 mg/kg (rat)
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Dermal	LD50	>2920 mg/kg (rat)
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Inhalative	LC50/4 h	>23300 mg/l (rat)
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Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, < 5 % n-hexane

Oral	LD50	>5840 mg/kg (rat)
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Dermal	LD50	>2920 mg/kg (rat)
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(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Version number 17

Trade name: **kLine Copper Paste Spray**

(Contd. of page 5)

Inhalative	LC50/4 h	<25.2 mg/l (rat)
106-97-8 butane		
Inhalative	LC50/4 h	658 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:** Vapours have narcotic effect.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes

EC50/48 h 3 mg/l (daphnia)

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, < 5 % n-hexane

EC50/48 h 3 mg/l (daphnia)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **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 course or sewage system.
 Danger to drinking water if even small quantities leak into the ground.
 Harmful to aquatic organisms
- **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

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

· European waste catalogue

16 05 04 gases in pressure containers (including halons) containing dangerous substances

15 01 04 metallic packaging

· Uncleaned packaging:

- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number

· ADR, IMDG, IATA

1950

· 14.2 UN proper shipping name

· ADR

1950 AEROSOLS

(Contd. on page 7)

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

Version number 17

Trade name: kLine Copper Paste Spray

(Contd. of page 6)

· IMDG	AEROSOLS
· IATA	AEROSOLS, flammable

· **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
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· **14.5 Environmental hazards:**

· Marine pollutant:	No
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· **14.6 Special precautions for user**

Warning: Gases.

· **Danger code (Kemler):**

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· **EMS Number:**

F-D,S-U

· **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**

· Limited quantities (LQ)	LQ2
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· Transport category	2
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· Tunnel restriction code	D
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· UN "Model Regulation":	UN1950, AEROSOLS, 2.1
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SECTION 15: Regulatory information

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

SECTION 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.

· **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.

(Contd. on page 8)

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

Version number 17

Trade name: *kLine Copper Paste Spray*

(Contd. of page 7)

R11 Highly flammable.

R12 Extremely flammable.

R38 Irritating to skin.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

R67 Vapours may cause drowsiness and dizziness.

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

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 Harmonized 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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· * Data compared to the previous version altered.

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