

GB

Page 1 of 22
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 07.03.2017 / 0012
Replacing version dated / version: 29.07.2016 / 0011
Valid from: 07.03.2017
PDF print date: 14.04.2017
Copper Lubricant Spray 400 ml
Art.: 147707

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

Copper Lubricant Spray 400 ml
Art.: 147707

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

Relevant identified uses of the substance or mixture:

Lubricating grease

Sector of use [SU]:

SU 0 - Other

SU 1 - Agriculture, forestry, fishery

SU19 - Building and construction work

SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Chemical product category [PC]:

PC24 - Lubricants, greases, release products

Process category [PROC]:

PROC11 - Non industrial spraying

Article Categories [AC]:

AC99 - Not required.

Environmental Release Category [ERC]:

ERC99 - Not required.

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

GB

Albert Berner Deutschland GmbH, Bernerstrasse 4, 74653 Künzelsau, Germany
Phone: +49 79 40 12 10, Fax: +49 79 40 12 13 00
info@berner.de, www.berner.de

Details of the supplier of the safety data sheet see section 16 of this safety data sheet.

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 07.03.2017 / 0012

Replacing version dated / version: 29.07.2016 / 0011

Valid from: 07.03.2017

PDF print date: 14.04.2017

Copper Lubricant Spray 400 ml

Art.: 147707

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (BRC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Skin Irrit.	2	H315-Causes skin irritation.
Asp. Tox.	1	H304-May be fatal if swallowed and enters airways.
STOT SE	3	H336-May cause drowsiness or dizziness.
Aquatic Chronic	2	H411-Toxic to aquatic life with long lasting effects.
Aerosol	1	H222-Extremely flammable aerosol.
Aerosol	1	H229-Pressurised container: May burst if heated.

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)



Danger

H315-Causes skin irritation. H336-May cause drowsiness or dizziness. H411-Toxic to aquatic life with long lasting effects. H222-Extremely flammable aerosol. H229-Pressurised container: May burst if heated.

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.

P261-Avoid breathing vapours or spray. P273-Avoid release to the environment. P280-Wear protective gloves.

P312-Call a POISON CENTRE / doctor if you feel unwell.

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

GB

Page 3 of 22
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 07.03.2017 / 0012
 Replacing version dated / version: 29.07.2016 / 0011
 Valid from: 07.03.2017
 PDF print date: 14.04.2017
 Copper Lubricant Spray 400 ml
 Art.: 147707

Without adequate ventilation, formation of explosive mixtures may be possible.
 Pentane
 Naphtha (petroleum), hydrotreated light

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

When using: Hazardous to drinking water, on escape of even small quantities.

Danger of bursting (explosion) when heated

SECTION 3: Composition/information on ingredients

Aerosol

3.1 Substance

n.a.

3.2 Mixture

Butane	
Registration number (REACH)	---
Index	601-004-00-0
EINECS, ELINCS, NLP	203-448-7
CAS	106-97-8
content %	25-50
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Gas 1, H220

Pentane	Substance for which an EU exposure limit value applies.
Registration number (REACH)	---
Index	601-006-00-1
EINECS, ELINCS, NLP	203-692-4
CAS	109-66-0
content %	15-<25
Classification according to Regulation (EC) 1272/2008 (CLP)	Aquatic Chronic 2, H411 Asp. Tox. 1, H304 STOT SE 3, H336 Flam. Liq. 2, H225

Copper	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP	231-159-6
CAS	7440-50-8
content %	5-<25
Classification according to Regulation (EC) 1272/2008 (CLP)	Aquatic Acute 1, H400 (M=1)

Naphtha (petroleum), hydrotreated light	
Registration number (REACH)	---

GB

Page 4 of 22
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 07.03.2017 / 0012
 Replacing version dated / version: 29.07.2016 / 0011
 Valid from: 07.03.2017
 PDF print date: 14.04.2017
 Copper Lubricant Spray 400 ml
 Art.: 147707

Index	649-328-00-1
EINECS, ELINCS, NLP	265-151-9
CAS	64742-49-0
content %	10-<20
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Aquatic Chronic 2, H411 Asp. Tox. 1, H304 STOT SE 3, H336

Propane	
Registration number (REACH)	---
Index	601-003-00-5
EINECS, ELINCS, NLP	200-827-9
CAS	74-98-6
content %	2,5-10
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Gas 1, H220

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.
 The substances named in this section are given with their actual, appropriate classification!
 For substances that are listed in appendix VI, table 3.1/3.2 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.
 If, for example, the note P is applied for a hydrocarbon then this has already been taken into account for the classification named here.
 Quote: "Note P - The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7)."
 Article 4 of the regulation (EC) no. 1272/2008 (CLP regulation) was also observed and taken into account for the classification named here.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation

Remove person from danger area.
 Supply person with fresh air and consult doctor according to symptoms.

Skin contact

Wash thoroughly using copious water - remove contaminated clothing immediately. If skin irritation occurs (redness etc.), consult doctor.

Eye contact

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Do not induce vomiting. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

With long-term contact:
 Dermatitis (skin inflammation)
 Drying of the skin.

Page 5 of 22

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 07.03.2017 / 0012

Replacing version dated / version: 29.07.2016 / 0011

Valid from: 07.03.2017

PDF print date: 14.04.2017

Copper Lubricant Spray 400 ml

Art.: 147707

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

n.c.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water jet spray

CO₂

Extinction powder

Large fire:

Water jet spray / alcohol resistant foam

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Hydrocarbons

Danger of explosion by prolonged heating.

Explosive vapour/air mixture

5.3 Advice for firefighters

Protective respirator with independent air supply.

Cool container at risk with water.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove possible causes of ignition - do not smoke.

Ensure sufficient supply of air.

Avoid inhalation, and contact with eyes or skin.

6.2 Environmental precautions

Prevent penetration into drains, cellars, working pits or other places in which accumulation could be hazardous.

Prevent surface and ground-water infiltration, as well as ground penetration.

6.3 Methods and material for containment and cleaning up

If spray or gas escapes, ensure ample fresh air is available.

Active substance:

Soak up with absorbent material (e.g. universal binding agent) and dispose of according to Section 13.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

GB

Page 6 of 22

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 07.03.2017 / 0012

Replacing version dated / version: 29.07.2016 / 0011

Valid from: 07.03.2017

PDF print date: 14.04.2017

Copper Lubricant Spray 400 ml

Art.: 147707

7.1.1 General recommendations

Ensure good ventilation.

Keep away from sources of ignition - Do not smoke.

Do not use on hot surfaces.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

Handle and open container with care.

Take precautions against electrostatic charges.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.

Not to be stored in gangways or stair wells.

Store product closed and only in original packing.

Observe special regulations for aerosols!

Observe special storage conditions.

Protect against moisture and store closed.

Keep protected from direct sunlight and temperatures over 50°C.

Store in a well ventilated place.

Store cool.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40):

800 mg/m³

Chemical Name	Butane	Content %: 25-50
WEL-TWA:	600 ppm (1450 mg/m ³)	WEL-STEL: 750 ppm (1810 mg/m ³)
Monitoring procedures:	- Compur - KITA-221 SA (549 459)	
BMGV:	---	Other information: ---

Chemical Name	Pentane	Content %: 15-<25
WEL-TWA:	600 ppm (1800 mg/m ³)	WEL-STEL: ---
(WEL),	1000 ppm (3000 mg/m ³) (EU)	---
Monitoring procedures:	- Compur - KITA-113 SB(C) (549 368) - Draeger - Pentane 100/a (67 24 701) DFG (D) (Lösungsmittelgemische Meth. Nr. 1), DFG (E) - (Solvent mixtures 1) - 1998, 2002	
BMGV:	---	Other information: ---

GB

GB

Page 7 of 22
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 07.03.2017 / 0012
 Replacing version dated / version: 29.07.2016 / 0011
 Valid from: 07.03.2017
 PDF print date: 14.04.2017
 Copper Lubricant Spray 400 ml
 Art.: 147707

Chemical Name	Copper	Content %: 5-<25
WEL-TWA: 1 mg/m ³ (dusts and mists, as Cu)	WEL-STEL: 2 mg/m ³ (dusts and mists, as Cu)	---
Monitoring procedures:		
<ul style="list-style-type: none"> ISO 15202 (Workplace air - Determination of metals and metalloids in airborne particulate matter by Inductively Coupled Plasma Atomic Emission Spectrometry), Part 1-3 - 2000(Part 1), 2001(Part 2), 2004 (Part 3) - EU project - BC/CEN/ENTR/000/2002-16 card 84-1 (2004) MDHS 91 (Metals and metalloids in workplace air by X-ray fluorescence spectrometry) - 1998 - EU project - BC/CEN/ENTR/000/2002-16 card 84-2 (2004) - NIOSH 7029 (Copper (dust and fume)) - 1994 - NIOSH 7300 (Elements by ICP (nitric/perchloric ashing)) - 2003 - NIOSH 7301 (Elements by ICP (aqua regia ashing)) - 2003 - NIOSH 7303 (Elements by ICP (Hot block HCl/HNO₃ digestion)) - 2003 OSHA ID-121 (Metal and metalloid particulates in workplace atmospheres (Atomic absorption)) - 2002 - EU project - BC/CEN/ENTR/000/2002-16 card 84-10 (2004) OSHA ID-125G (Metal and metalloid particulates in workplace atmospheres (ICP)) - 2002 OSHA ID-206 (ICP analysis of metal/metalloid particulates from solder operations) - 1991 		
BMGV: ---	Other information: ---	

Chemical Name	Naphtha (petroleum), hydrotreated light	Content %: 10-<20
WEL-TWA: 800 mg/m ³	WEL-STEL: ---	---
Monitoring procedures:		
<ul style="list-style-type: none"> - Draeger - Hydrocarbons 2/a (81 03 581) - Draeger - Hydrocarbons 0,1%/c (81 03 571) - Compur - KITA-187 S (551 174) 		
BMGV: ---	Other information: (WEL acc. to RCP-method, EH40)	

Chemical Name	Propane	Content %: 2,5-10
WEL-TWA: 1000 ppm (ACGIH)	WEL-STEL: ---	---
Monitoring procedures:		
- Compur - KITA-125 SA (549 954)		
BMGV: ---	Other information: ---	

Chemical Name	Oil mist, mineral	Content %:
WEL-TWA: 5 mg/m ³ (ACGIH)	WEL-STEL: 10 mg/m ³ (ACGIH)	---
Monitoring procedures:		
<ul style="list-style-type: none"> - Draeger - Oil 10/a-P (67 28 371) - Draeger - Oil Mist 1/a (67 33 031) 		
BMGV: ---	Other information: ---	

GB WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
 ** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006

Page 8 of 22

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 07.03.2017 / 0012

Replacing version dated / version: 29.07.2016 / 0011

Valid from: 07.03.2017

PDF print date: 14.04.2017

Copper Lubricant Spray 400 ml

Art.: 147707

with the goal of revision.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. EN 14042.

EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Solvent resistant protective gloves (EN 374).

If applicable

Protective Neoprene® / polychloroprene gloves (EN 374).

Protective nitrile gloves (EN 374)

Minimum layer thickness in mm:

0,35

Permeation time (penetration time) in minutes:

>= 480

Protective hand cream recommended.

The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:

If OES or MEL is exceeded.

Gas mask filter A (EN 14387), code colour brown

At high concentrations:

Respiratory protection appliance (insulation device) (e.g. EN 137 or EN 138)

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

If applicable, these are included in the individual protective measures (eye/face protection, skin protection, respiratory protection).

Page 9 of 22
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 07.03.2017 / 0012
 Replacing version dated / version: 29.07.2016 / 0011
 Valid from: 07.03.2017
 PDF print date: 14.04.2017
 Copper Lubricant Spray 400 ml
 Art.: 147707

Additional information on hand protection - No tests have been performed.
 In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
 Selection of materials derived from glove manufacturer's indications.
 Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
 Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
 In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
 The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Aerosol. Active substance: liquid.
Colour:	Not determined
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	Not determined
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	-44 °C
Flash point:	<0 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Lower explosive limit:	0,7 Vol-%
Upper explosive limit:	8,5 Vol-%
Vapour pressure:	2,5 bar (20°C)
Vapour density (air = 1):	Not determined
Density:	0,74 g/cm ³ (20°C)
Bulk density:	Not determined
Solubility(ies):	Not determined
Water solubility:	Insoluble
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	200 °C (Ignition temperature)
Auto-ignition temperature:	No
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Product is not explosive. Possible build up of explosive/highly flammable vapour/air mixture.
Oxidising properties:	Not determined

9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	64,6 %

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 07.03.2017 / 0012
 Replacing version dated / version: 29.07.2016 / 0011
 Valid from: 07.03.2017
 PDF print date: 14.04.2017
 Copper Lubricant Spray 400 ml
 Art.: 147707

SECTION 10: Stability and reactivity

10.1 Reactivity

See also Subsection 10.2 to 10.6.
 The product has not been tested.

10.2 Chemical stability

See also Subsection 10.1 to 10.6.
 Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

See also Subsection 10.1 to 10.6.

10.4 Conditions to avoid

See also section 7.
 Heating, open flame, ignition sources
 Pressure increase will result in danger of bursting.
 Electrostatic charge

10.5 Incompatible materials

No dangerous reactions are known.

10.6 Hazardous decomposition products

See also Subsection 10.1 to 10.5.
 None known

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Possibly more information on health effects, see Section 2.1 (classification).

**Copper Lubricant Spray 400 ml
 Art.: 147707**

Toxicity / effect	Endpoi nt	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.

GB

Page 11 of 22
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 07.03.2017 / 0012
 Replacing version dated / version: 29.07.2016 / 0011
 Valid from: 07.03.2017
 PDF print date: 14.04.2017
 Copper Lubricant Spray 400 ml
 Art.: 147707

Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.
Other information:						Classification according to calculation procedure.

Butane

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by inhalation:	LC50	658	mg/l/4 h	Rat		
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Symptoms:						ataxia, breathing difficulties, drowsiness, unconsciousness, frostbite, disturbed heart rhythm, headaches, cramps, intoxication, dizziness, nausea and vomiting.

Pentane

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>16000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	>100	mg/l/4 h	Rat		
Skin corrosion/irritation:						Mild irritant, Repeated exposure may cause skin dryness or cracking.

GB

Page 12 of 22
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 07.03.2017 / 0012
 Replacing version dated / version: 29.07.2016 / 0011
 Valid from: 07.03.2017
 PDF print date: 14.04.2017
 Copper Lubricant Spray 400 ml
 Art.: 147707

Serious eye damage/irritation:						Mild irritant
Respiratory or skin sensitisation:						Not sensitizing
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Aspiration hazard:						Yes
Symptoms:						drowsiness, vomiting, cramps, drowsiness, mucous membrane irritation

Copper

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by dermal route:						n.d.a.
Skin corrosion/irritation:						Not irritant
Serious eye damage/irritation:						Not irritant
Respiratory or skin sensitisation:						Not sensitizing
Symptoms:						abdominal pain, vomiting, weight loss, headaches, metal fume fever

Naphtha (petroleum), hydrotreated light

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LD50	>20	mg/l/4 h	Rat		
Serious eye damage/irritation:						Not irritant
Respiratory or skin sensitisation:						Not sensitizing
Aspiration hazard:						Yes

GB

Page 13 of 22
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 07.03.2017 / 0012
 Replacing version dated / version: 29.07.2016 / 0011
 Valid from: 07.03.2017
 PDF print date: 14.04.2017
 Copper Lubricant Spray 400 ml
 Art.: 147707

Symptoms:						drowsiness, unconsciousness, heart/circulatory disorders, headaches, cramps, drowsiness, mucous membrane irritation, dizziness, nausea and vomiting.
-----------	--	--	--	--	--	--

Propane						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by inhalation:	LC50	658	mg/l/4 h	Rat		
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Reproductive toxicity (Developmental toxicity):	NOAEC	21,641	mg/l		OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Development. Tox. Screening Test)	
Symptoms:						breathing difficulties, unconsciousness, frostbite, headaches, cramps, mucous membrane irritation, dizziness, nausea and vomiting.

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

GB

Page 14 of 22
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 07.03.2017 / 0012
 Replacing version dated / version: 29.07.2016 / 0011
 Valid from: 07.03.2017
 PDF print date: 14.04.2017
 Copper Lubricant Spray 400 ml
 Art.: 147707

Copper Lubricant Spray 400 ml
Art.: 147707

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							n.d.a.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Other adverse effects:							n.d.a.
Other information:							According to the recipe, contains no AOX.

Butane

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	24,11	mg/l		QSAR	
12.1. Toxicity to daphnia:	LC50	48h	14,22	mg/l		QSAR	
12.3. Bioaccumulative potential:	Log Pow		2,98				A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Pentane

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	9,87	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to fish:	LC50	96h	9,87	mg/l	Salmo gairdneri		
12.1. Toxicity to fish:	LC50	96h	9,99	mg/l	Lepomis macrochirus		

GB

Page 15 of 22
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 07.03.2017 / 0012
 Replacing version dated / version: 29.07.2016 / 0011
 Valid from: 07.03.2017
 PDF print date: 14.04.2017
 Copper Lubricant Spray 400 ml
 Art.: 147707

12.1. Toxicity to daphnia:	EC50	48h	9,74	mg/l	Daphnia magna		
12.2. Persistence and degradability:		8d	70	%			
12.3. Bioaccumulative potential:	Log Pow		3,39				calculated value

Copper

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	0,665	mg/l			
12.1. Toxicity to fish:	LOEC/LOEL	96h	0,022	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to daphnia:	EC50		0,44	mg/l	Daphnia magna		

Naphtha (petroleum), hydrotreated light

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to daphnia:	EC50	48h	3	mg/l	Daphnia magna		
12.3. Bioaccumulative potential:	Log Pow		3,4-5,2				

Propane

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.3. Bioaccumulative potential:	Log Pow		2,28				A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

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

07 01 04 other organic solvents, washing liquids and mother liquors

20 01 99 other fractions not otherwise specified

GB

Page 16 of 22
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 07.03.2017 / 0012
 Replacing version dated / version: 29.07.2016 / 0011
 Valid from: 07.03.2017
 PDF print date: 14.04.2017
 Copper Lubricant Spray 400 ml
 Art.: 147707

Recommendation:
 Sewage disposal shall be discouraged.
 Pay attention to local and national official regulations.
 E.g. suitable incineration plant.
 E.g. dispose at suitable refuse site.
 Do not dispose of with household waste.
For contaminated packing material
 Pay attention to local and national official regulations.
 Recommendation:
 Do not perforate, cut up or weld uncleaned container.
 15 01 04 metallic packaging

SECTION 14: Transport information

General statements

14.1. UN number: 1950

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

UN 1950 AEROSOLS

14.3. Transport hazard class(es): 2.1

14.4. Packing group: -

Classification code: 5F

LQ: 1 L

14.5. Environmental hazards: environmentally hazardous

Tunnel restriction code: D

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

AEROSOLS (PENTANES)

14.3. Transport hazard class(es): 2.1

14.4. Packing group: -

EmS: F-D, S-U

Marine Pollutant: Yes

14.5. Environmental hazards: environmentally hazardous

Transport by air (IATA)

14.2. UN proper shipping name:

Aerosols, flammable

14.3. Transport hazard class(es): 2.1

14.4. Packing group: -

14.5. Environmental hazards: Not applicable

14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained.

All persons involved in transporting must observe safety regulations.

Precautions must be taken to prevent damage.

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

Freighted as packaged goods rather than in bulk, therefore not applicable.

Minimum amount regulations have not been taken into account.

Danger code and packing code on request.

Comply with special provisions.



GB

Page 17 of 22
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 07.03.2017 / 0012
 Replacing version dated / version: 29.07.2016 / 0011
 Valid from: 07.03.2017
 PDF print date: 14.04.2017
 Copper Lubricant Spray 400 ml
 Art.: 147707

SECTION 15: Regulatory information

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

Observe restrictions:
 Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC): 64,63 %

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 2,16
 These details refer to the product as it is delivered.
 Employee instruction/training in handling hazardous materials is required.
 Employee training in handling dangerous goods is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Skin Irrit. 2, H315	Classification according to calculation procedure.
Asp. Tox. 1, H304	Classification according to calculation procedure.
STOT SE 3, H336	Classification according to calculation procedure.
Aquatic Chronic 2, H411	Classification according to calculation procedure.
Aerosol 1, H222	Classification based on test data.
Aerosol 1, H229	Classification based on test data.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H225 Highly flammable liquid and vapour.
 H304 May be fatal if swallowed and enters airways.
 H315 Causes skin irritation.
 H336 May cause drowsiness or dizziness.
 H400 Very toxic to aquatic life.
 H411 Toxic to aquatic life with long lasting effects.
 H220 Extremely flammable gas.

Page 18 of 22

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 07.03.2017 / 0012

Replacing version dated / version: 29.07.2016 / 0011

Valid from: 07.03.2017

PDF print date: 14.04.2017

Copper Lubricant Spray 400 ml

Art.: 147707

Skin Irrit. — Skin irritation

Asp. Tox. — Aspiration hazard

STOT SE — Specific target organ toxicity - single exposure - narcotic effects

Aquatic Chronic — Hazardous to the aquatic environment - chronic

Aerosol — Aerosols

Flam. Gas — Flammable gases (including chemically unstable gases)

Flam. Liq. — Flammable liquid

Aquatic Acute — Hazardous to the aquatic environment - acute

Albert Berner Deutschland GmbH
Bernerstrasse 4
D - 74653 Künzelsau
Tel +49 79 40 12 10
Fax +49 79 40 12 13 00
info@berner.de
www.berner.de

Berner Gesellschaft m.b.H.
Industriezeile 36
A - 5280 Braunau / Inn
Tel +43 77 22 800 508
Fax +43 77 22 800 184
berner@berner.co.at
www.berner.co.at

Berner Belgien NV/SA
Bernerstraat 1
B - 3620 Lanaken
Tel +31 45 533 93 133(8.00h-
16.00h)
Tel +31 6 290 27 464 (16.00h-
8.00h)
Fax +31 455 33 92 43
info@berner.be
www.berner.be

Montagetechnik Berner AG
Kägenstraße 8
CH - 4153 Reinach / Bl. 1
Tel +41 61 71 59 222
Fax +41 61 71 59 333
berner-ag@berner-ag.ch
www.berner-ag.ch

Berner A/S
Stenholm 2
DK - 9400 Nørresundby
Tel +45 99 36 15 00
Fax +45 98 19 24 14
info@berner.dk
www.berner.dk

Berner Montaje y Fijación, S.L.
P.I. "La Rosa VI"
C/Albert Berner, 2
E - 18330 Chauchina-Granada-
España
Tel +34 90 21 03 504
Fax +34 90 21 13 190
berner-spain@berner.es
www.berner.es

Berner Kft.
Táblás u. 34
H - 1097 Budapest
Tel +36 (1) 347 1059
Fax +36 (1) 347 1045
info@berner.hu
www.berner.hu

Frimann-Berner AS
Holmaveien 25
N - 1339 Vøyenenga
Tel +47 66 76 55 80
Fax +47 66 76 55 81
info@berner.no
www.berner.no

Berner Succ. Luxembourg
105, Rue des Bruyères
L - 1274 Howald
Tel +31 45 533 93 133 (8.00h-
16.00h)
Tel +31 6 290 27 464 (16.00h-
8.00h)
Fax +31 455 33 92 43
info@berner.lu
www.berner.lu

Berner spol. s r.o.
Jinonická 80
CZ - 158 00 Praha 5
Tel +420 225 390 666
Fax +420 225 390 660
berner@berner.cz
www.berner.cz

Berner,S.A.
Av. Amália Rodrigues,3510
Manique de Baixo
P - 2785-738 São Domingos de Rana
Tel ++351 21 448 90 60
Fax ++351 21 448 90 69
marketing.pt@berner.pt
www.berner.pt

Berner Polska Sp. z o.o.
Ul. Puzkarska 7J
30-644 Kraków
Tel +48 12 297 62 40
Fax +48 12 297 62 02
office@berner.pl
www.berner.pl

Page 19 of 22

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 07.03.2017 / 0012

Replacing version dated / version: 29.07.2016 / 0011

Valid from: 07.03.2017

PDF print date: 14.04.2017

Copper Lubricant Spray 400 ml

Art.: 147707

Albert Berner UAB
Kalvarijø 29B, LT09313,
Vilnius, Lithuania
Tel +370-52104355
Fax +370-52350020
info@berner.lt

Berner SK
Berner s r.o.
Jesenského 1
SK - 962 12 Detva
Tel (+421) 45 5410 245
Fax (+421) 45 5410 255
berner@berner.sk
www.berner.sk

Albert Berner Montagetechnik AB
Elektravägen 53
S - 126 30 Hågersten
Tel +46 85 78 77 800
Fax +46 85 78 77 805
info@berner.se
www.berner.se

Berner Pultti Oy
Volltikatu 6
FI - 70700 Kuopio
Tel +358-207-590 220
Fax +358-207-590 221
kuopio@berner-pultti.com
www.berner-pultti.com

Mitras d.o.o
Brdnikova ulica 34e
SL-1000 Ljubljana
Tel +386-1-256-62-46
Fax +386-1-256-62-45
mitras@siol.com

BERNER d.o.o
CPM Savëca Šanci
Trgovačka 2
HR - 10000 Zagreb
Tel +38512 499 470
Fax +38512 499 480
e-mail: safetydata-hr@berner.co.at

Berner Endüstriyel Ürünler
Sanayi ve Ticaret A.Ş.
Ferhatpaşa Mah. G 7 Sok. 31/2
TR - 34858 Kartal-Samandıra /
İSTANBUL
Tel +90 (0) 216-4713077
Fax +90 (0) 216-4719625
info@berner.com.tr
www.berner.com.tr

Berner S.p.A.
Via dell 'Elettronica 15
I - 37139 Verona
Tel +39 04 58 67 01 11
Fax +39 04 58 67 01 34
info@berner.it
www.berner.it

Albert Berner srl
Str. Vrancei Nr. 51 - 55
RO - 310315 Arad
Tel +40 257 212291
Fax +40 257 250460
office@berner-romania.ro
www.berner-romania.ro

Berner Produkten b.v.
Vogelzankweg 175
NL - 6374 AC Landgraaf
+31 45 53 39 133 (8.00h-16.00h)
+31 6 290 27 464 (16.00h-8.00h)
info@berner.nl
www.berner.nl

Berner s.a.r.l.
ZI Les Manteaux
F - 89331 Saint-Julien-du-Sault Cedex
Tel +33 38 69 94 400
Fax +33 38 69 94 444
contact@berner.fr
www.berner.fr

Albert Berner SIA
Liliju 20, Marupe, Mārupes novads,
LV-2167, Latvija
Tel +37167840007
Fax +371678440008
info@berner.lv

(c) COPYRIGHT 1987 - 2050 ALL
RIGHTS RESERVED

Any abbreviations and acronyms used in this document:

AC Article Categories

acc., acc. to according, according to

ACGIH American Conference of Governmental Industrial Hygienists

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)

Page 20 of 22

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 07.03.2017 / 0012

Replacing version dated / version: 29.07.2016 / 0011

Valid from: 07.03.2017

PDF print date: 14.04.2017

Copper Lubricant Spray 400 ml

Art.: 147707

AOEL Acceptable Operator Exposure Level

AOX Adsorbable organic halogen compounds

approx. approximately

Art., Art. no. Article number

ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)

BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)

BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

BCF Bioconcentration factor

BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)

BHT Butylhydroxytoluol (= 2,6-Di-*t*-butyl-4-methyl-phenol)

BMGV Biological monitoring guidance value (EH40, UK)

BOD Biochemical oxygen demand

BSEF Bromine Science and Environmental Forum

bw body weight

CAS Chemical Abstracts Service

CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids

CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques

CIPAC Collaborative International Pesticides Analytical Council

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

COD Chemical oxygen demand

CTFA Cosmetic, Toiletry, and Fragrance Association

DMEL Derived Minimum Effect Level

DNEL Derived No Effect Level

DOC Dissolved organic carbon

DT50 Dwell Time - 50% reduction of start concentration

DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)

dw dry weight

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EC European Community

ECHA European Chemicals Agency

EEA European Economic Area

EEC European Economic Community

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

EN European Norms

EPA United States Environmental Protection Agency (United States of America)

ERC Environmental Release Categories

ES Exposure scenario

etc. et cetera

EU European Union

EWC European Waste Catalogue

Fax. Fax number

gen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

HET-CAM Hen's Egg Test - Chorionallantoic Membrane

HGWP Halocarbon Global Warming Potential

Page 21 of 22

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 07.03.2017 / 0012

Replacing version dated / version: 29.07.2016 / 0011

Valid from: 07.03.2017

PDF print date: 14.04.2017

Copper Lubricant Spray 400 ml

Art.: 147707

IARC International Agency for Research on Cancer

IATA International Air Transport Association

IBC Intermediate Bulk Container

IBC (Code) International Bulk Chemical (Code)

IC Inhibitory concentration

IMDG-code International Maritime Code for Dangerous Goods

incl. including, inclusive

IUCLID International Uniform Chemical Information Database

LC lethal concentration

LC50 lethal concentration 50 percent kill

LCLo lowest published lethal concentration

LD Lethal Dose of a chemical

LD50 Lethal Dose, 50% kill

LDLo Lethal Dose Low

LOAEL Lowest Observed Adverse Effect Level

LOEC Lowest Observed Effect Concentration

LOEL Lowest Observed Effect Level

LQ Limited Quantities

MARPOL International Convention for the Prevention of Marine Pollution from Ships

n.a. not applicable

n.av. not available

n.c. not checked

n.d.a. no data available

NIOSH National Institute of Occupational Safety and Health (United States of America)

NOAEC No Observed Adverse Effective Concentration

NOAEL No Observed Adverse Effect Level

NOEC No Observed Effect Concentration

NOEL No Observed Effect Level

ODP Ozone Depletion Potential

OECD Organisation for Economic Co-operation and Development

org. organic

PAH polycyclic aromatic hydrocarbon

PBT persistent, bioaccumulative and toxic

PC Chemical product category

PE Polyethylene

PNEC Predicted No Effect Concentration

POCP Photochemical ozone creation potential

ppm parts per million

PROC Process category

PTFE Polytetrafluorethylene

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)

REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.

RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

SADT Self-Accelerating Decomposition Temperature

SAR Structure Activity Relationship

SU Sector of use

SVHC Substances of Very High Concern

Tel. Telephone

ThOD Theoretical oxygen demand

GB

Page 22 of 22

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 07.03.2017 / 0012

Replacing version dated / version: 29.07.2016 / 0011

Valid from: 07.03.2017

PDF print date: 14.04.2017

Copper Lubricant Spray 400 ml

Art.: 147707

TOC Total organic carbon

TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).

WHO World Health Organization

wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.