

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 02.06.2015

Version number 124

Revision: 02.06.2015

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

- **1.1 Product identifier**
- **Trade name:** CHEMISOL COPPER GREASE SPRAY
- **Article number:** CHC040103
- **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:**
LUSAVOUGA, S.A.
 Edifício Lusavouga - Avenida Europa, 375
 3800 - 533 CACIA
 Aveiro (Portugal)
 +351 234 915 010 | +351 234 915 015
 lusavouga@lusavouga.pt | www.lusavouga.com
- **Further information obtainable from:** Quality Department - qualidade@lusavouga.pt
- **1.4 Emergency telephone number:** +31 (0)561-694400 (09:00h - 17:00h)

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.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

STOT SE 3 H336 May cause drowsiness or dizziness.

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



F+; Extremely flammable

R12: Extremely flammable.



N; Dangerous for the environment

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

R66-67: Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

- **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.

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

Warning! Pressurised container.

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*Has a narcotising effect.***· 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.***· Hazard pictograms**

GHS02 GHS07 GHS09

· Signal word Danger**· Hazard-determining components of labelling:***pentane***· Hazard statements***H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.**H336 May cause drowsiness or dizziness.**H411 Toxic to aquatic life with long lasting effects.***· Precautionary statements***P102 Keep out of reach of children.**P260 Do not breathe spray.**P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.**P251 Do not pierce or burn, even after use.**P211 Do not spray on an open flame or other ignition source.**P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.**P501 Dispose of contents/container in accordance with local regulations.***· Additional information:***EUH066 Repeated exposure may cause skin dryness or cracking.***· 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 substances listed below with nonhazardous additions.**· Dangerous components:**

CAS: 109-66-0 EINECS: 203-692-4 Index number: 601-006-00-1 Reg.nr.: 01-2119459286-30-xxxx	pentane Xn R65 F+ R12 N R51/53 R66-67 ----- Flam. Liq. 2, H225 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 STOT SE 3, H336	25-50%
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CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5 Reg.nr.: 01-2119486944-21-xxxx	propane  F+ R12  Flam. Gas 1, H220 Press. Gas C, H280	12.5-20%
CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0 Reg.nr.: 01-2119474691-32-xxxx	butane  F+ R12  Flam. Gas 1, H220 Press. Gas C, H280	10-12.5%
CAS: 75-28-5 EINECS: 200-857-2 Index number: 601-004-00-0 Reg.nr.: 01-2119485395-27-xxxx	isobutane  F+ R12  Flam. Gas 1, H220 Press. Gas C, H280	10-12.5%
CAS: 7440-50-8 EINECS: 231-159-6 Reg.nr.: 01-2119480154-42-xxxx	copper  Xn R22  N R50/53  Aquatic Acute 1, H400; Aquatic Chronic 1, H410  Acute Tox. 4, H302	2.5-5%

· **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.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor 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:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
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:** 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.

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See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:**
Do not spray onto a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Pressurised 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.
- **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 pressurised 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:**

109-66-0 pentane

WEL Long-term value: 1800 mg/m³, 600 ppm

106-97-8 butane

WEL Short-term value: 1810 mg/m³, 750 ppm
Long-term value: 1450 mg/m³, 600 ppm
Carc (if more than 0.1% of buta-1.3-diene)

7440-50-8 copper

WEL Short-term value: 2** mg/m³
Long-term value: 0.2* 1** mg/m³
*fume **dusts and mists (as Cu)

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

· 8.2 Exposure controls

- **Personal protective equipment:**
- **General protective and hygienic measures:**
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
- **Respiratory protection:** Not required.
- **Protection of hands:** Not required.
- **Material of gloves** Not required.
- **Penetration time of glove material** Not required.
- **Eye protection:** Not required.

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

· Form:	Aerosol
· Colour:	According to product specification
· Odour:	Characteristic
· Odour threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	Not applicable, as aerosol.

· Flash point: < 0 °C (< 32 °F)
Not applicable, as aerosol.

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 285 °C (545 °F)

· Decomposition temperature: Not determined.

· Self-igniting: Product is not selfigniting.

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

· Explosion limits:

· Lower:	1.4 Vol %
· Upper:	10.9 Vol %

· Vapour pressure at 20 °C (68 °F): 3500 hPa (2625 mm Hg)

· Density at 20 °C (68 °F): 0.8056 g/cm³ (6.723 lbs/gal)

· Relative density: Not determined.

· Vapour density: Not determined.

· 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:	70.5 %
· EU-VOC:	568.0 g/l
· EU-VOC in %:	70.50 %

· Solids content: 19.5 %

· 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.

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- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**

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

109-66-0 pentane

Oral	LD50	>16000 mg/kg (rat)
Dermal	LD50	>2500 mg/kg (rat) >5000 mg/kg (rabbit)
Inhalative	LC50 / 4 h	>100 mg/m ³ (rat)

106-97-8 butane

Inhalative	LC50 / 4 h	658000 mg/m ³ (rat)
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8009-03-8 Petrolatum

Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritant effect.
- **Serious eye damage/irritation** No irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

109-66-0 pentane

EC50 / 48 h	9.7 mg/l (daphnia magna)
LC50 / 96 h	1-10 mg/l (fish)

- **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:** Toxic for 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.
Also poisonous for fish and plankton in water bodies.
Toxic for 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.

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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**

20 01 13*	solvents
15 01 04	metallic packaging

· **Uncleaned packaging:**

· **Recommendation:** Non contaminated packagings may be recycled.

SECTION 14: Transport information

· **14.1 UN-Number**

· **ADR, IMDG, IATA**

UN1950

· **14.2 UN proper shipping name**

· **ADR**

· **IMDG**

· **IATA**

1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS
AEROSOLS (PENTANES, Zinc alkyldithiophosphate),
MARINE POLLUTANT
AEROSOLS, flammable

· **14.3 Transport hazard class(es)**

· **ADR**



· **Class**

2 5F Gases.

· **Label**

2.1

· **IMDG**



· **Class**

2.1

· **Label**

2.1

· **IATA**



· **Class**

2.1

· **Label**

2.1

· **14.4 Packing group**

· **ADR, IMDG, IATA**

Void

· **14.5 Environmental hazards:**

Product contains environmentally hazardous substances:
pentane

· **Marine pollutant:**

Yes

· **Special marking (ADR):**

Symbol (fish and tree)
Symbol (fish and tree)

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· 14.6 Special precautions for user	Warning: Gases.
· Danger code (Kemler):	-
· 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)	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":	UN1950, AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **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.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H336 May cause drowsiness or dizziness.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- R12 Extremely flammable.
- R22 Harmful if swallowed.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R65 Harmful: may cause lung damage if swallowed.
- R66 Repeated exposure may cause skin dryness or cracking.
- R67 Vapours may cause drowsiness and dizziness.
- **Department issuing MSDS:** Quality Department
- **Contact:** qualidade@lusavouga.pt
- **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)

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*ICAO: International Civil Aviation Organisation**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)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**Flam. Gas 1: Flammable gases, Hazard Category 1**Flam. Aerosol 1: Flammable aerosols, Hazard Category 1**Press. Gas C: Gases under pressure: Compressed gas**Flam. Liq. 2: Flammable liquids, Hazard Category 2**Acute Tox. 4: Acute toxicity, Hazard Category 4**STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3**Asp. Tox. 1: Aspiration hazard, Hazard Category 1**Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1**Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1**Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2***· * Data compared to the previous version altered.**

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