

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Anti-Seize Kupfer Spray (241S4)**

Revision date: 13.11.2023

Product code: 241S4

Page 1 of 17

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Anti-Seize Kupfer Spray (241S4)

UFI: X003-A093-Q00K-7SGR

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Lubricants, greases, release products

**Uses advised against**

Do not use in cavities.

**1.3. Details of the supplier of the safety data sheet**

Company name:	WOCKEN Industriepartner GmbH & Co.KG	
Street:	Industriestr. 14	
Place:	D-49716 Meppen	
Telephone:	+49/(0)5931/801-0	Telefax: +49/(0)5931/801-90
E-mail:	info@wocken.com	
Contact person:	Joachim Wolbers	Telephone: +49/(0)5931/801-20
E-mail:	jwolbers@wocken.com	
Internet:	www.wocken.com	
Responsible Department:	Sicherheitsdatenblätter, REACh	

**1.4. Emergency telephone number:** Information Center against Poisoning (GIZ) Bonn, Phone: 0049/228/19240 (24-hour emergency call)

**Further Information**

Restricted to professional users. Follow the instructions for use on the label. To avoid risks to man and the environment, comply with the instructions for use.

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Aerosol 1; H222-H229  
Skin Irrit. 2; H315  
STOT SE 3; H336  
Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008****Hazard components for labelling**

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane (Note P)  
propan-2-ol; isopropyl alcohol; isopropanol

**Signal word:** Danger

**Pictograms:****Hazard statements**

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

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Anti-Seize Kupfer Spray (241S4)**

Revision date: 13.11.2023

Product code: 241S4

Page 2 of 17

H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

**Precautionary statements**

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.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P391	Collect spillage.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents/container according to local / regional / national / international regulations for disposal.

**Additional advice on labelling**

Classification according to Regulation (EC) No 1272/2008 [CLP]

**Labelling of packages where the contents do not exceed 125 ml****Signal word:** Danger**Pictograms:****Hazard statements**

H222-H229

**Precautionary statements**

P210-P211-P251-P410+P412

**2.3. Other hazards**Contains no endocrine disruptor (EDC) at a concentration of  $\geq 0.1\%$ .

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop. Do not breathe aerosol. The labeling of an aspiration hazard (Asp. Tox. 1 H304) is for aerosol dispensers and containers with sealed sprayer not required (Regulation (EC) 1272/2008, Annex 1, 1.3.3). Wear suitable protective clothing, gloves and eye/face protection.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Anti-Seize Kupfer Spray (241S4)**

Revision date: 13.11.2023

Product code: 241S4

Page 3 of 17

**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
106-97-8	Butane (<0.1% butadiene (EINECS 203-450-8))			25 - < 50 %
	203-448-7	601-004-00-0	01-2119474691-32	
	Flam. Gas 1, Press. Gas (Comp.); H220 H280			
64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane (Note P)			25 - < 50 %
	921-024-6		01-2119475514-35	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411			
74-98-6	propane			10 - < 25 %
	200-827-9	601-003-00-5	01-2119486944-21	
	Flam. Gas 1, Press. Gas (Comp.); H220 H280			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			1 - < 5 %
	200-661-7		01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			
7440-50-8	copper			1 - < 5 %
	231-159-6			
	Acute Tox. 4, Eye Irrit. 2, Aquatic Acute 1, Aquatic Chronic 1; H302 H319 H400 H410			
61788-45-2	amines, hydrogenated tallow alkyl			< 1 %
	262-976-6		01-2120089693-42	
	Skin Irrit. 2, Eye Dam. 1, STOT RE 2, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1; H315 H318 H373 H304 H400 H410			

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
106-97-8	203-448-7	Butane (<0.1% butadiene (EINECS 203-450-8))	25 - < 50 %
		inhalation: LC50 = 50 - 658 mg/l (dusts or mists); dermal: LD50 = 5000 mg/kg; oral: LD50 = 5000 mg/kg	
64742-49-0	921-024-6	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane (Note P)	25 - < 50 %
		inhalation: LC50 = > 25,2 mg/l (vapours); inhalation: LC50 = > 20 mg/l (dusts or mists); dermal: LD50 = > 2800 - 3100 mg/kg; oral: LD50 = > 5000 mg/kg	
74-98-6	200-827-9	propane	10 - < 25 %
		inhalation: LC50 = > 20 mg/l (dusts or mists)	
67-63-0	200-661-7	propan-2-ol; isopropyl alcohol; isopropanol	1 - < 5 %
		inhalation: LC50 = > 20 mg/l (dusts or mists); dermal: LD50 = 12882,2 mg/kg; oral: LD50 = 5840 mg/kg Eye Irrit. 2; H319: >= 10 - 100 STOT SE 3; H336: >= 20 - 100	
7440-50-8	231-159-6	copper	1 - < 5 %
		dermal: LD50 = > 2000 mg/kg; oral: LD50 = 300 - 500 mg/kg	
61788-45-2	262-976-6	amines, hydrogenated tallow alkyl	< 1 %
		Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=10	

**SECTION 4: First aid measures**
**4.1. Description of first aid measures**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Anti-Seize Kupfer Spray (241S4)**

Revision date: 13.11.2023

Product code: 241S4

Page 4 of 17

**General information**

First aider: Pay attention to self-protection! Remove persons to safety. Keep away from unprotected people. Keep upwind. Ventilate affected area. In all cases of doubt, or when symptoms persist, seek medical advice. Remove contaminated, saturated clothing immediately.

**After inhalation**

Provide fresh air. Seek medical attention if problems persist. Remove casualty to fresh air and keep warm and at rest.

**After contact with skin**

Remove mechanically (e.g. dab away using wadding or cellulose material) then thoroughly wash the affected skin with a mild cleansing agent and water. Take off immediately all contaminated clothing and wash it before reuse.

**After contact with eyes**

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eyelids open. Protect the injured eye. Rinse also under the lid of the eyelid. In case of eye irritation consult an ophthalmologist.

**After ingestion**

No usual way of intake because of aerosol.  
Do NOT induce vomiting. Rinse mouth thoroughly with water.

**4.2. Most important symptoms and effects, both acute and delayed**

Inhalation causes narcotic effects/intoxication.  
The following symptoms may occur: difficulties of breathing. Headache. Dizziness. Dizziness. Coughing.  
Nausea. unconsciousness.

**4.3. Indication of any immediate medical attention and special treatment needed**

First Aid, decontamination, treatment of symptoms.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>). Dry extinguishing powder. Foam. Water spray jet.

**Unsuitable extinguishing media**

High power water jet.

**5.2. Special hazards arising from the substance or mixture**

Heating causes rise in pressure with risk of bursting. In case of fire and/or explosion do not breathe fumes.  
In case of fire may be liberated: carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Organic cracking products.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus. Wear chemical resistant suit.  
Temperature Class T3 (maximum permissible surface temperature of the equipment = 200 ° C)

**Additional information**

Contaminated fire-fighting water must be collected separately. Dispose of fire residues and extinguishing water in accordance with official regulations. Co-ordinate fire-fighting measures to the fire surroundings.  
Use water spray jet to protect personnel and to cool endangered containers. Move undamaged containers from immediate hazard area if it can be done safely.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Wear personal protection equipment. Special danger of slipping by leaking/spilling product.

**For non-emergency personnel**

Keep away from unprotected people. Keep upwind. Remove persons to safety.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Anti-Seize Kupfer Spray (241S4)**

Revision date: 13.11.2023

Product code: 241S4

Page 5 of 17

**For emergency responders**

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

**6.3. Methods and material for containment and cleaning up****For containment**

Cover drains. Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

**For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Take up mechanically, placing in appropriate containers for disposal.

**Other information**

Ventilate affected area.

**6.4. Reference to other sections**

Treat the recovered material as prescribed in the section on waste disposal. Disposal: see section 13.

Safe handling: see section 7. Personal protection equipment: see section 8.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Use only in well-ventilated areas. Do not use in cavities. Provide adequate ventilation as well as local exhaust at critical locations. Keep away from sources of ignition - No smoking. Flammable vapours can accumulate in head space of closed systems. Pressurised container: May burst if heated. Avoid contact with eyes. Do not breathe gas/fumes/vapour/spray.

**Advice on protection against fire and explosion**

Take precautionary measures against static discharges. Vapours may form explosive mixtures with air. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.

**Advice on general occupational hygiene**

Work in well-ventilated zones or use proper respiratory protection. Do not eat, drink, smoke or sneeze at the workplace. Remove all sources of ignition. Wash hands before breaks and after work. Restore grease film of the skin after cleansing by using a fat cream to prevent dermatitis. Take off contaminated clothing and wash it before reuse.

**Further information on handling**

Heating causes rise in pressure with risk of bursting. Remove all sources of ignition. Do not spray on naked flames or any incandescent material. After use replace the closing cap immediately. Note laws and regulations for the storage and use of substances hazardous to water.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place.  
Observe the storage regulations of the TRGS 300 for flammable aerosols.

**Hints on joint storage**

Do not store together with:

**Further information on storage conditions**

Protect against: heat. (> 50 °C) UV-radiation/sunlight. frost. moisture.

**7.3. Specific end use(s)**

Lubricants, greases, release products. Observe technical data sheet.

**SECTION 8: Exposure controls/personal protection**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Anti-Seize Kupfer Spray (241S4)**

Revision date: 13.11.2023

Product code: 241S4

Page 6 of 17

**8.1. Control parameters**

**DNEL/DMEL values**

CAS No	Name of agent	Exposure route	Effect	Value
64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane (Note P)			
Worker DNEL, acute		inhalation	systemic	1286,4 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	local	837,5 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	systemic	2035 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	local	1066,67 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	773 mg/kg bw/day
Consumer DNEL, acute		inhalation	systemic	1152 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	178,57 mg/m <sup>3</sup>
Consumer DNEL, acute		inhalation	local	640 mg/m <sup>3</sup>
Consumer DNEL, long-term		oral	systemic	699 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	699 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	608 mg/m <sup>3</sup>
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			
Worker DNEL, long-term		inhalation	systemic	500 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	888 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	89 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	319 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	26 mg/kg bw/day
7440-50-8	copper			
Worker DNEL, long-term		dermal	systemic	137 mg/kg bw/day
Worker DNEL, acute		dermal	systemic	273 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	137 mg/kg bw/day
Consumer DNEL, acute		dermal	systemic	273 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,041 mg/kg bw/day
Consumer DNEL, acute		oral	systemic	0,082 mg/kg bw/day

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Anti-Seize Kupfer Spray (241S4)**

Revision date: 13.11.2023

Product code: 241S4

Page 7 of 17

**PNEC values**

CAS No	Name of agent		Value
Environmental compartment			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol		
Freshwater			140,9 mg/l
Freshwater (intermittent releases)			140,9 mg/l
Marine water			140,9 mg/l
Freshwater sediment			552 mg/kg
Marine sediment			552 mg/kg
Secondary poisoning			160 mg/kg
Micro-organisms in sewage treatment plants (STP)			2251 mg/l
Soil			28 mg/kg
7440-50-8	copper		
Freshwater			0,0063 mg/l
Marine water			0,0052 mg/l
Freshwater sediment			87 mg/kg
Marine sediment			676 mg/kg
Micro-organisms in sewage treatment plants (STP)			0,23 mg/l
Soil			65 mg/kg

**Additional advice on limit values**

Y: A risk of reproductive effects needs not to be feared if the occupational exposure limit value (AGW) and the biological limit value (BGW) is kept

**8.2. Exposure controls**



**Appropriate engineering controls**

Provide adequate ventilation as well as local exhaust at critical locations. Provide earthing of containers, equipment, pumps and ventilation facilities. Have eye showers and safety shower ready.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Tightly sealed safety glasses. EN 166

**Hand protection**

Protect skin by using skin protective cream. Tested protective gloves are to be worn: EN ISO 374. The most suitable glove should be chosen in consultation with the glove supplier / manufacturer who can provide information on the breakthrough time of the glove material. Breakthrough times and swelling properties of the material must be taken into consideration. Take recovery periods for skin regeneration. Wash hands thoroughly after handling.

**Skin protection**

For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes). EN 13034/6

**Respiratory protection**

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Suitable respiratory protective equipment: Self-contained respirator (breathing apparatus).

**Thermal hazards**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Anti-Seize Kupfer Spray (241S4)**

Revision date: 13.11.2023

Product code: 241S4

Page 8 of 17

Extremely flammable aerosol. Pressurized container: May burst if heated.

**Environmental exposure controls**

Leakage into the environment must be prevented. Do not allow uncontrolled leakage of product into the environment.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state:	Aerosol
Colour:	copper
Odour:	like: Solvents
Odour threshold:	not determined
Melting point/freezing point:	Not applicable, aerosol
Boiling point or initial boiling point and boiling range:	Not applicable, aerosol
Flammability:	Extremely flammable aerosol.
Lower explosion limits:	1,7 vol. %
Upper explosion limits:	15 vol. %
Flash point:	Not applicable, aerosol
Auto-ignition temperature:	> 200 °C
Decomposition temperature:	not determined
pH-Value:	Not applicable, aerosol
Viscosity / kinematic:	not determined
Water solubility:	Immiscible
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	not determined
Vapour pressure: (at 20 °C)	4200 hPa
Vapour pressure:	not determined
Density (at 20 °C):	0,681 - 0,689 g/cm <sup>3</sup>
Relative vapour density:	not determined
Particle characteristics:	not relevant (Aerosol)

**9.2. Other information**

**Information with regard to physical hazard classes**

Explosive properties

The product is not explosive, but the formation of explosive vapor / air mixtures is possible.

Self-ignition temperature

Solid: not self-igniting

Gas: not self-igniting

Oxidizing properties

not determined

**Other safety characteristics**

Evaporation rate: not determined

Viscosity / dynamic: not determined

**Further Information**

Content of flammable components 51,65 %

Temperature Class T3 (maximum permissible surface temperature of the equipment = 200 ° C)

**SECTION 10: Stability and reactivity**



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Anti-Seize Kupfer Spray (241S4)**

Revision date: 13.11.2023

Product code: 241S4

Page 9 of 17

**10.1. Reactivity**

This material is considered to be non-reactive under normal use conditions.  
The mixture contains reactive substance(s). Ignition hazard.

**10.2. Chemical stability**

The product is chemically stable under recommended conditions of storage, use and temperature.

**10.3. Possibility of hazardous reactions**

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

**10.4. Conditions to avoid**

heat. UV-radiation/sunlight. frost. moisture.  
In case of exceeding the storage temperature: >50 °C Danger of bursting container.  
Remove all sources of ignition.

**10.6. Hazardous decomposition products**

Thermal decomposition can lead to the escape of irritating gases and vapors.  
In case of fire may be liberated: carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Organic cracking products.

**Further information**

In case of exceeding the storage temperature: >50 °C Danger of bursting container.  
In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Toxicokinetics, metabolism and distribution**

There are no data available on the preparation/mixture itself.  
The method of classification of the mixture is based on the components of the mixture: Additivity formula

**Acute toxicity**

Based on available data, the classification criteria are not met.  
Not excessively toxic.

**ATEmix calculated**

ATE (oral) 50000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Anti-Seize Kupfer Spray (241S4)**

Revision date: 13.11.2023

Product code: 241S4

Page 10 of 17

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
106-97-8	Butane (<0.1% butadiene (EINECS 203-450-8))				
	oral	LD50 5000 mg/kg	Rat (Rattus).	MSDS	
	dermal	LD50 5000 mg/kg	Rabbit	MSDS	
	inhalation (4 h) dust/mist	LC50 50 - 658 mg/l	Rat (Rattus).	MSDS	
64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane (Note P)				
	oral	LD50 > 5000 mg/kg	Rat	Study report (1986)	OECD Guideline 401
	dermal	LD50 > 2800 - 3100 mg/kg	Rat	Study report (1977)	The acute toxicity of SBP 100/140 was de
	inhalation (4 h) vapour	LC50 > 25,2 mg/l	Rat	Study report (1988)	Group of rats were exposed to test subst
	inhalation (4 h) dust/mist	LC50 > 20 mg/l	Rat	MSDS	
74-98-6	propane				
	inhalation (4 h) dust/mist	LC50 > 20 mg/l	Rat (Rattus).	MSDS	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50 5840 mg/kg	Ratte (Rattus).	ECHA	OECD 401
	dermal	LD50 12882,2 mg/kg	Kaninchen	ECHA	OECD 402
	inhalation (4 h) dust/mist	LC50 > 20 mg/l	Ratte (Rattus).	SDS / ECHA	OECD 403
7440-50-8	copper				
	oral	LD50 300 - 500 mg/kg	Rat	Study report (2001)	OECD Guideline 423
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2001)	OECD Guideline 402

**Irritation and corrosivity**

Causes skin irritation.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

**STOT-single exposure**

May cause drowsiness or dizziness. (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, &lt;5% n-hexane (Note P))

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Anti-Seize Kupfer Spray (241S4)

Revision date: 13.11.2023

Product code: 241S4

Page 11 of 17

#### **Aspiration hazard**

Based on available data, the classification criteria are not met.

The labeling of an aspiration hazard (Asp. Tox. 1 H304) is for aerosol dispensers and containers with sealed sprayer not required (Regulation (EC) 1272/2008, Annex 1, 1.3.3).

#### **11.2. Information on other hazards**

##### **Endocrine disrupting properties**

No further relevant information available.

### **SECTION 12: Ecological information**

#### **12.1. Toxicity**

Toxic to aquatic life with long lasting effects.

Leakage into the environment must be prevented.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Anti-Seize Kupfer Spray (241S4)**

Revision date: 13.11.2023

Product code: 241S4

Page 12 of 17

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
106-97-8	Butane (<0.1% butadiene (EINECS 203-450-8))					
	Acute fish toxicity	LC50 mg/l	49,9	96 h	Fish, no other information	United States Environmental Protection A The Ecosar class program has been develo
	Acute algae toxicity	ErC50 mg/l	19,37	96 h	algae	USEPA OPPT Risk Assessment Division (200) Calculation using ECOSAR Program v1.00.
	Acute crustacea toxicity	EC50 mg/l	69,43	48 h	Daphnia sp.	USEPA OPPT Risk Assessment Division (200) Calculation using ECOSAR Program v1.00.
64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane (Note P)					
	Acute fish toxicity	LC50 mg/l	1 - 10	96 h	fish	MSDS
	Acute algae toxicity	ErC50 mg/l	10 - 30	72 h	Pseudokirchneriella subcapitata	Study report (1995) OECD Guideline 201
	Acute crustacea toxicity	EC50	4,5 mg/l	48 h	Daphnia magna	Study report (1995) OECD Guideline 202
	Fish toxicity	NOEC mg/l	2,045	28 d	Oncorhynchus mykiss	CONCAWE, Brussels, Belgium (2010) The aquatic toxicity was estimated by a
	Crustacea toxicity	NOEC	1 mg/l	21 d	Daphnia magna	SIDS Initial Assessment Report For SIAM OECD Guideline 211
74-98-6	propane					
	Acute fish toxicity	LC50 mg/l	49,9	96 h	Fish, no other information	United States Environmental Protection A The Ecosar class program has been develo
	Acute algae toxicity	ErC50 mg/l	19,37	96 h	algae	USEPA OPPT Risk Assessment Division (200) Calculation using ECOSAR Program v1.00.
	Acute crustacea toxicity	EC50 mg/l	69,43	48 h	Daphnia sp.	USEPA OPPT Risk Assessment Division (200) Calculation using ECOSAR Program v1.00.
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50 mg/l	10000	96 h	Pimephales promelas	Publication (1983) OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50 mg/l	> 10000	48 h	Daphnia magna (Großer Wasserfloh)	ECHA / SDS OECD 202
7440-50-8	copper					
	Acute fish toxicity	LC50 mg/l	0,193	96 h	Pimephales promelas	Study report (1996) measurements were conducted by standard
	Acute algae toxicity	ErC50 mg/l	0,152	72 h	Raphidocelis subcapitata	Publication (2005) OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	0,007	48 h	Daphnia magna	Study report (1978) - Test were conducted on Daphnia magna t
	Fish toxicity	NOEC mg/l	0,123	12 d	Atherinops affinis	Mar. Environ. Res. 31: 17-35 (1991) Three tests are reported, designed to de

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Anti-Seize Kupfer Spray (241S4)**

Revision date: 13.11.2023

Product code: 241S4

Page 13 of 17

	Algae toxicity	NOEC mg/l	0,0102	19 d	other aquatic plant: giant kelp <i>Macrocystis</i> <i>pyrife</i>	Mar. Ecol. Prog. Ser. 68: 147 - 156 (199)	Tests were conducted to determine the ef
	Crustacea toxicity	NOEC mg/l	0,033	14 d	<i>Penaeus mergulensis</i> and <i>Penaeus</i> <i>monodon</i>	Bull. Environ. Contain. Toxicol. (1995)	The effects of dissolved copper on the g

**12.2. Persistence and degradability**

No data available

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			
	Verordnung (EG) Nr. 440/2008, Anhang C.5 (BSB)	53 %	5	ECHA / SDS
	Leicht biologisch abbaubar (nach OECD-Kriterien).			
	OECD 301E	95 %	21	SDS
	Leicht biologisch abbaubar (nach OECD-Kriterien).			

**12.3. Bioaccumulative potential**

No further relevant information available.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
106-97-8	Butane (<0.1% butadiene (EINECS 203-450-8))	1,09 - 2,89
64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane (Note P)	4 - 5,1
74-98-6	propane	2,31
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	0,05
61788-45-2	amines, hydrogenated tallow alkyl	8,37

**BCF**

CAS No	Chemical name	BCF	Species	Source
7440-50-8	copper	0,02 - 20	Crangon crangon	Symp. Biologica. Hun

**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

Toxic to aquatic life with long lasting effects.

**Further information**

Doesn't get into the sewage water as long as the process is carried out according to regulations. Cover drains.  
Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.  
hazardous to water (WGK 2)

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal recommendations**

Consult the appropriate authorities about waste disposal. Dispose of waste according to applicable legislation.  
Hazardous waste according to Directive 2008/98/EC (waste framework directive). Handle contaminated

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Anti-Seize Kupfer Spray (241S4)**

Revision date: 13.11.2023

Product code: 241S4

Page 14 of 17

packages in the same way as the substance itself.

**List of Wastes Code - residues/unused products**

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste

**List of Wastes Code - used product**

070604 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; other organic solvents, washing liquids and mother liquors; hazardous waste

**List of Wastes Code - contaminated packaging**

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging

**Contaminated packaging**

Completely emptied packings can be re-cycled.

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

**14.1. UN number or ID number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS | ENVIRONMENTALLY HAZARDOUS  
**14.3. Transport hazard class(es):** 2  
**14.4. Packing group:** -  
 Hazard label: 2.1



Classification code: 5F  
 Special Provisions: 190 327 344 625  
 Limited quantity: 1 L  
 Excepted quantity: E0  
 Transport category: 2  
 Tunnel restriction code: D

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS | ENVIRONMENTALLY HAZARDOUS  
**14.3. Transport hazard class(es):** 2  
**14.4. Packing group:** -  
 Hazard label: 2.1



Classification code: 5F  
 Special Provisions: 190 327 344 625  
 Limited quantity: 1 L  
 Excepted quantity: E0

**Marine transport (IMDG)**

**14.1. UN number or ID number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS | MARINE POLLUTANT  
**14.3. Transport hazard class(es):** 2.1  
**14.4. Packing group:** -  
 Hazard label: 2.1

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Anti-Seize Kupfer Spray (241S4)**

Revision date: 13.11.2023

Product code: 241S4

Page 15 of 17



Marine pollutant: Ja  
 Special Provisions: 63, 190, 277, 327, 344, 381,959  
 Limited quantity: 1000 mL  
 Excepted quantity: E0  
 EmS: F-D, S-U

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS, flammable | ENVIRONMENTALLY HAZARDOUS  
**14.3. Transport hazard class(es):** 2.1  
**14.4. Packing group:** -  
 Hazard label: 2.1



Special Provisions: A145 A167 A802  
 Limited quantity Passenger: 30 kg G  
 Passenger LQ: Y203  
 Excepted quantity: E0  
 IATA-packing instructions - Passenger: 203  
 IATA-max. quantity - Passenger: 75 kg  
 IATA-packing instructions - Cargo: 203  
 IATA-max. quantity - Cargo: 150 kg

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: Copper

**14.6. Special precautions for user**

Warning ENVIRONMENTALLY HAZARDOUS

**14.7. Maritime transport in bulk according to IMO instruments**

No data available

**Other applicable information**

Transport as "limited quantity" according to chapter 3.4 ADR/RID.

**SECTION 15: Regulatory information**

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

Information according to Directive 2012/18/EU (SEVESO III): P3a FLAMMABLE AEROSOLS

Additional information: E2

**Additional information**

REACH Regulation (EC) No 1907/2006, as last amended by Commission Regulation (EU) 2022/586

CLP Regulation (EC) No 1272/2008, as last amended by Regulation (EU) 2021/1962.

**National regulatory information**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Anti-Seize Kupfer Spray (241S4)**

Revision date: 13.11.2023

Product code: 241S4

Page 16 of 17

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 2 - obviously hazardous to water

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information**

**Abbreviations and acronyms**

Flam. Gas: Flammable gases  
 Aerosol: Aerosols  
 Press. Gas (Comp.): Compressed gas  
 Flam. Liq: Flammable liquid  
 Acute Tox: Acute toxicity  
 Asp. Tox: Aspiration hazard  
 Skin Irrit: Skin irritation  
 Eye Dam: Eye damage  
 Eye Irrit: Eye irritation  
 STOT SE: Specific target organ toxicity - single exposure  
 STOT RE: Specific target organ toxicity - repeated exposure  
 Aquatic Acute: Acute aquatic hazard  
 Aquatic Chronic: Chronic aquatic hazard  
 For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>  
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (Europäisches Übereinkommen über die internationale Beförderung gefährlicher Güter auf der Straße) IMDG: International Maritime Code for Dangerous Goods (Internationaler Seeschiffahrtscode für gefährliche Güter) IATA: International Air Transport Association (Internationaler Luftverkehrsverband) GHS: Global harmonisiertes System zur Einstufung und Kennzeichnung von Chemikalien EINECS: Europäisches Verzeichnis der auf dem Markt vorhandenen chemischen Stoffe ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service LC50: Tödliche Konzentration, 50% LD50: Tödliche Dosis, 50%

**Key literature references and sources for data**

Information from our suppliers as well as data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used for the preparation of this safety data sheet. Other sources: Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended. Guidance on the compilation of safety data sheets as amended (ECHA). Guidance on labelling and packaging under Regulation (EC) No 1272/2008 (CLP) as amended (ECHA). Safety data sheets of the ingredients. ECHA homepage - Information on chemicals. GESTIS substance database (Germany). Federal Environment Agency "Rigoletto" - Information page on water-polluting substances (Germany). EU occupational exposure limit values Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831 as amended. National occupational exposure limit value lists of the respective countries in the respective valid version. Regulations on the transport of dangerous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

**Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]**

Classification	Classification procedure
Aerosol 1; H222-H229	On basis of test data
Skin Irrit. 2; H315	Calculation method
STOT SE 3; H336	Calculation method
Aquatic Chronic 2; H411	Calculation method



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Anti-Seize Kupfer Spray (241S4)**

Revision date: 13.11.2023

Product code: 241S4

Page 17 of 17

**Relevant H and EUH statements (number and full text)**

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
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.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. This information is intended to give you indications for the safe handling of the product mentioned in this safety data sheet during storage, processing, transport and disposal. The details are not transferable to other products. Insofar as the product is mixed with other materials, mixed or processed, or subjected to processing, the information in this safety data sheet, unless expressly stated otherwise, can not be transferred to the new material produced in this way.

**Identified uses**

No	Short title	LCS	SU	PC	PROC	ERC	AC	TF	Specification
1	Lubricants, greases, release products, Industrial spraying, Non industrial spraying	-	3, 22	24	7, 11	-	-	-	Aerosol

LCS: Life cycle stages

SU: Sectors of use

PC: Product categories

PROC: Process categories

ERC: Environmental release categories

AC: Article categories

TF: Technical functions

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*