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

Revision date / version: 21.09.2022 / 0028

Replacing version dated / version: 21.03.2022 / 0027

Valid from: 21.09.2022 PDF print date: 23.09.2022 Copper Spray S425

300 ml Art.: 6510 5000, Art.: 6514 5000

# 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 Spray S425** 

300 ml Art.: 6510 5000, Art.: 6514 5000

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

Lubricant

#### Relevant identified uses of the substance or mixture:

# **Uses advised against:**

No information available at present.

#### 1.3 Details of the supplier of the safety data sheet

Theo Förch GmbH & Co. KG Theo-Förch-Str. 11 – 15 74196 Neuenstadt Tel.: 07139/95-0 Fax: 07139/95-199

Fax: 07139/95-199 Email: info@foerch.de Homepage: www.foerch.com

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

# **Emergency information services / official advisory body:**

(RL)

National Poisons Information Centre, Beaumont Hospital, Dublin 9, Ireland, Tel.:

+353 (0)1 809 2166 (Public Poisons Info Line, 8am-10pm, 7 days a week)

+353 (0)1 809 2566 (Info for Healthcare Professionals ONLY, 24 h, 7 days a week)

#### Telephone number of the company in case of emergencies:

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

# **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
Eye Irrit.	2	H319-Causes serious eye irritation.
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 Acute	1	H400-Very toxic to aquatic life.
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.



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H373-May cause damage to organs through prolonged or repeated exposure by inhalation (central nervous system).

# 2.2 Label elements Labeling according to Regulation (EC) 1272/2008 (CLP)



Danger

H319-Causes serious eye irritation. H315-Causes skin irritation. H336-May cause drowsiness or dizziness. H410-Very toxic to aquatic life with long lasting effects. H222-Extremely flammable aerosol. H229-Pressurised container: May burst if heated. H373-May cause damage to organs through prolonged or repeated exposure by inhalation (central nervous system).

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. P260-Do not breathe 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.

Without adequate ventilation, formation of explosive mixtures may be possible.

Hydrocarbons, C6, isoalkanes, <5% n-hexane

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

#### 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 %).

The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

# **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

# n.a. 3.2 Mixtures

Dimethyl ether	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119472128-37-XXXX
Index	603-019-00-8
EINECS, ELINCS, NLP, REACH-IT List-No.	204-065-8
CAS	115-10-6
content %	50-60
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Flam. Gas 1A, H220

Hydrocarbons, C6, isoalkanes, <5% n-hexane	
Registration number (REACH)	01-2119484651-34-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	931-254-9
CAS	(64742-49-0)
content %	15-<20



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Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Flam. Liq. 2, H225
	Skin Irrit. 2, H315
	STOT SE 3, H336
	Asp. Tox. 1, H304
	Aquatic Chronic 2, H411

Copper	
Registration number (REACH)	01-2119480154-42-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	231-159-6
CAS	7440-50-8
content %	10-<20
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H302
	Eye Irrit. 2, H319
	Aquatic Acute 1, H400 (M=10)
	Aquatic Chronic 1, H410 (M=1)

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	
Registration number (REACH)	01-2119458049-33-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	919-446-0
CAS	
content %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	EUH066
	Flam. Liq. 3, H226
	Acute Tox. 4, H332
	STOT SE 3, H336
	STOT RE 1, H372 (central nervous system) (as inhalation)
	Asp. Tox. 1, H304
	Aquatic Chronic 2, H411

Zinc powder - zinc dust (stabilized)	
Registration number (REACH)	01-2119467174-37-XXXX
Index	030-001-01-9
EINECS, ELINCS, NLP, REACH-IT List-No.	231-175-3
CAS	7440-66-6
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Aquatic Acute 1, H400 (M=1)
	Aguatic Chronic 1, H410 (M=1)

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 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

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

#### Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

If the person is unconscious, place in a stable side position and consult a doctor.

#### Skin contact

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

# Eye contact

Remove contact lenses.

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



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#### Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting. Consult doctor immediately.

In case of vomiting, keep head low so that the stomach content does not reach the lungs.

#### 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.

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

eves, reddened

watering eyes

reddening of the skin

Dermatitis (skin inflammation)

headaches

dizziness

Coordination disorders

mental confusion

Ingestion:

Nausea

vomiting

Danger of aspiration.

oedema of the lungs

Chemical pneumonitis (condition similar to pneumonia)

# 4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

# **SECTION 5: Firefighting measures**

# 5.1 Extinguishing media

# Suitable extinguishing media

Water jet spray/foam/CO2/dry extinguisher

# 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

Toxic gases

Danger of bursting (explosion) when heated

Possible build up of explosive/highly flammable vapour/air mixture.

#### 5.3 Advice for firefighters

For personal protective equipment see Section 8.

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

Full protection, if necessary.

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

#### 6.1.1 For non-emergency personnel

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.

Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

Leave the danger zone if possible, use existing emergency plans if necessary.

Avoid contact with eyes or skin.

#### 6.1.2 For emergency responders

See section 8 for suitable protective equipment and material specifications.

# 6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent from entering drainage system.



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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, sand, diatomaceous earth) 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

#### 7.1.1 General recommendations

Ensure good ventilation.

Avoid inhalation of the vapours.

Keep away from sources of ignition - Do not smoke.

Take measures against electrostatic charging, if appropriate.

Do not use on hot surfaces.

Avoid contact with eyes or skin.

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.

#### 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.

Store product closed and only in original packing.

Not to be stored in gangways or stair wells.

Observe special regulations for aerosols!

Observe special storage conditions.

Do not store with flammable or self-igniting materials.

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 Dimethyl €	ether	
WEL-TWA: 400 ppm (766 mg/m3) (WEL), 100	00 ppm   WEL-STEL: 500 ppm (958 mg/m3) (WEL)	
(1920 mg/m3) (EU)		
Monitoring procedures:	<ul> <li>Compur - KITA-123 S (549 129)</li> </ul>	
BMGV:	Other informati	on:
© Chemical Name Dimethyl e	ether	
OELV-8h: 1000 ppm (1920 mg/m3) (OELV-8h	i, EU) OELV-15min:	
Monitoring procedures:	- Compur - KITA-123 S (549 129)	
BLV:	Other informati	on: IOELV
© Chemical Name Hydrocarb	oons, C6, isoalkanes, <5% n-hexane	
WEL-TWA: 800 mg/m3	WEL-STEL:	
Monitoring procedures:	<ul> <li>Draeger - Hydrocarbons 0,1%/c (81 03 571)</li> </ul>	
	<ul> <li>Draeger - Hydrocarbons 2/a (81 03 581)</li> </ul>	

Compur - KITA-187 S (551 174)



(B) (RL) Page 6 of 20 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 21.09.2022 / 0028 Replacing version dated / version: 21.03.2022 / 0027 Valid from: 21.09.2022 PDF print date: 23.09.2022 Copper Spray S425 300 ml Art.: 6510 5000, Art.: 6514 5000 BMGV: ---Other information: (OEL acc. to RCP-method, paragraphs 84-87, EH40) (RL) Chemical Name Hydrocarbons, C6, isoalkanes, <5% n-hexane OELV-8h: 100 ppm (573 mg/m3) ("Stoddard solvent", OELV-15min: ---[White spirit]) Monitoring procedures: Draeger - Hydrocarbons 0,1%/c (81 03 571) Draeger - Hydrocarbons 2/a (81 03 581) Compur - KITA-187 S (551 174) BLV: ---Other information: © Chemical Name Copper WEL-TWA: 1 mg/m3 (dusts and mists, as Cu) WEL-STEL: 2 mg/m3 (dusts and mists, as Cu) Monitoring procedures: ISO 15202 (Workplace air - Determination of metals and metalloids in airborne particulate matter by Inductively Coupled Plasma Atomic Emission Spectrometry), Part 1-3 - 2012(Part 1), 2012(Part 2), 2004 (Part 3) - EU project BC/CEN/ENTR/000/2002-16 card 84-1 (2004) MDHS 91/2 (Metals and metalloids in workplace air by X-ray fluorescence spectrometry) - 2015 - 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 Acid Ashing)) - 2003 NIOSH 7301 (Elements by ICP (agua regia ashing)) - 2003 NIOSH 7303 (Elements by ICP (Hot block HCI/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)) -OSHA ID-206 (ICP analysis of metal/metallloid particulates from solder operations) -BMGV: Other information: Chemical Name Copper OELV-8h: 1 mg/m3 (dusts and mists, as Cu) Monitoring procedures: ISO 15202 (Workplace air - Determination of metals and metalloids in airborne particulate matter by Inductively Coupled Plasma Atomic Emission Spectrometry), Part 1-3 - 2012(Part 1), 2012(Part 2), 2004 (Part 3) - EU project BC/CEN/ENTR/000/2002-16 card 84-1 (2004) MDHS 91/2 (Metals and metalloids in workplace air by X-ray fluorescence spectrometry) - 2015 - 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 Acid Ashing)) - 2003 NIOSH 7301 (Elements by ICP (aqua regia ashing)) - 2003 NIOSH 7303 (Elements by ICP (Hot block HCI/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/metallloid particulates from solder operations) -1991 BLV: Other information: Chemical Name Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) WEL-TWA: 800 mg/m3 WEL-STEL: Compur - KITA-187 S (551 174) Monitoring procedures: BMGV: Other information: (OEL acc. to RCP-method, paragraphs 84-87, EH40) Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) Chemical Name OELV-8h: 100 ppm (573 mg/m3) ("Stoddard solvent", OELV-15min: ---[White spirit]) Compur - KITA-187 S (551 174) Monitoring procedures: Other information: ---BLV: ---

	Dimethyl ether						
	Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note
		Environmental					
		compartment					
ľ							



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	Environment - freshwater		PNEC	0,155	mg/l	
	Environment - sediment,		PNEC	0,681	mg/kg	
	freshwater					
	Environment - soil		PNEC	0,045	mg/kg	
	Environment - sewage		PNEC	160	mg/l	
	treatment plant					
	Environment - marine		PNEC	0,016	mg/l	
	Environment - water,		PNEC	1,549	mg/l	
	sporadic (intermittent)					
	release					
	Environment - sediment,		PNEC	0,069	mg/kg	
	marine					
Consumer	Human - inhalation	Long term, systemic	DNEL	471	mg/m3	
		effects				
Workers / employees	Human - inhalation	Long term, systemic	DNEL	1894	mg/m3	
1		effects				

Hydrocarbons, C6, isoall	kanes, <5% n-hexane					
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Consumer	Human - oral	Long term, systemic effects	DNEL	1301	mg/kg bw/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	1377	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	1131	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	13964	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	5306	mg/m3	

Copper						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	7,8	μg/l	
	Environment - marine		PNEC	5,2	μg/l	
	Environment - sediment, freshwater		PNEC	87	mg/kg dry weight	
	Environment - sediment, marine		PNEC	676	mg/kg dry weight	
	Environment - soil		PNEC	65,5	mg/kg dry weight	
	Environment - sewage treatment plant		PNEC	230	μg/l	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,041	mg/kg bw/day	

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)									
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note			
Consumer	Human - oral	Long term, systemic effects	DNEL	26	mg/kg bw/d				
Consumer	Human - dermal	Long term, systemic effects	DNEL	26	mg/kg bw/d				
Consumer	Human - inhalation	Long term, systemic effects	DNEL	71	mg/m3				
Workers / employees	Human - dermal	Long term, local effects	DNEL	44	mg/cm2				
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	330	mg/m3				



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Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note
	Environmental					
	compartment					
	Environment - freshwater		PNEC	20,6	μg/l	
	Environment - marine		PNEC	6,1	μg/l	
	Environment - sewage treatment plant		PNEC	52	μg/l	
	Environment - sediment, freshwater		PNEC	117,8	mg/kg dw	
	Environment - sediment, marine		PNEC	56,5	mg/kg	
	Environment - soil		PNEC	35,6	mg/kg	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,83	mg/kg bw/d	
Consumer	Human - dermal	Long term, systemic effects	DNEL	83	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	2,5	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	5	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	83	mg/kg	

- WEL-TWA = Workplace Exposure Limit Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).
- (8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit Short-term exposure limit (15-minute reference period).
- (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU), 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | 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 with the goal of revision.
- (13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).
- © OELV-8h = Occupational Exposure Limit Value (8-hour reference period). (IFV) = Inhalable Fraction and Vapour. (I) = Inhalable Fraction. (R) = Respirable Fraction.
- (8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE).
- OELV-15min = Occupational Exposure Limit Value (15-minute reference period). (IFV) = Inhalable Fraction and Vapour. (I) = Inhalable Fraction. (R) = Respirable Fraction.
- (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU. (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU).

BLV = Biological limit value |

Other information: Carc1A, Carc1B = carcinogenic substance, Cat. 1A or 1B. Muta1A, Muta1B = mutagenic substance, Cat. 1A or 1B. Repr1A, Repr1B = Substances known to be toxic for reproduction, Cat. 1A or 1B. Sk = can be absorbed through skin. Asphx = asphyxiant. Sen = Respiratory sensitizer. BOELV = Binding Occupational Exposure Limit Values. IOELV = Indicative Occupational Exposure Limit Values. (13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

#### 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.



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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:

Protective nitrile gloves (EN ISO 374).

Minimum layer thickness in mm:

0.4

Protective PVC gloves (EN ISO 374).

Minimum layer thickness in mm:

0.6

Protective Viton® / fluoroelastomer gloves (EN ISO 374).

Protective gloves made of polyvinyl alcohol (EN ISO 374).

Minimum layer thickness in mm:

0,7

Permeation time (penetration time) in minutes:

>= 480

Protective hand cream recommended.

The breakthrough times determined in accordance with EN 16523-1 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.

Filter A P2 (EN 14387), code colour brown, white

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

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 s

Colour: Odour:

Melting point/freezing point:

Boiling point or initial boiling point and boiling range:

Flammability:

Lower explosion limit: Upper explosion limit:

Flash point:

Aerosol. Active substance: liquid.

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Characteristic

There is no information available on this parameter.

There is no information available on this parameter.

Does not apply to aerosols.

There is no information available on this parameter.

There is no information available on this parameter.

-41 °C (The flash-point of the mixture was not tested, but complies

with the ingredient with the lowest value.)



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Auto-ignition temperature: Decomposition temperature:

pH:

Kinematic viscosity:

Solubility:

Partition coefficient n-octanol/water (log value):

Vapour pressure:

Density and/or relative density: Relative vapour density:

Particle characteristics:

9.2 Other information

No information available at present.

Does not apply to aerosols.

There is no information available on this parameter.

Mixture is non-soluble (in water). Does not apply to aerosols.

Insoluble

Does not apply to mixtures.

4500 hPa (20°C) Not determined

Does not apply to aerosols. Does not apply to aerosols.

# **SECTION 10: Stability and reactivity**

# 10.1 Reactivity

The product has not been tested.

#### 10.2 Chemical stability

Stable with proper storage and handling.

# 10.3 Possibility of hazardous reactions

No dangerous reactions are known.

#### 10.4 Conditions to avoid

Heating, open flame, ignition sources

Pressure increase will result in danger of bursting.

# 10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

# 10.6 Hazardous decomposition products

No decomposition when used as directed.

# **SECTION 11: Toxicological information**

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

300 ml Art.: 6510 5000, Art.: 65		Value	I I mit	Organism	To at weath and	Notes
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:	ATE	>5	mg/l			calculated value,
						Aerosol
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin						n.d.a.
sensitisation:						
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity -						n.d.a.
single exposure (STOT-SE):						
Specific target organ toxicity -						n.d.a.
repeated exposure (STOT-RE):						
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Dimethyl ether						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by inhalation:	LC50	164	mg/l/4h	Rat		
Skin corrosion/irritation:						Not irritant
Serious eye damage/irritation:						Not irritant
Respiratory or skin						No (skin contact)
sensitisation:						



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Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:					OECD 477 (Genetic Toxicology - Sex-Linked Recessive Lethal Test in Drosophilia melanogaster)	Negative
Carcinogenicity:	NOAEC	47000	mg/m3	Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negative
Reproductive toxicity:	NOAEL	5000	ppm	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEC	47106	mg/kg	Rat	OECD 452 (Chronic Toxicity Studies)	Negative(2 a)
Aspiration hazard:						No
Symptoms:						unconsciousnes, headaches, mucous membrane irritation, dizziness, nausea and vomiting., frostbite, gastrointestinal disturbances, respiratory distress, circulatory

Hydrocarbons, C6, isoalkanes, <5% n-hexane								
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes		
Acute toxicity, by oral route:	LD50	>16750	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)			
Acute toxicity, by dermal route:	LD50	>3350	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)			
Acute toxicity, by inhalation:	LC50	259354	mg/m3	Rat	OECD 403 (Acute Inhalation Toxicity)	Vapours		
Skin corrosion/irritation:						Skin Irrit. 2		
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	No (skin contact)		
Aspiration hazard:						Asp. Tox. 1		
Symptoms:						drowsiness, unconsciousness, heart/circulatory disorders, headaches, cramps, drowsiness, mucous membrane irritation, dizziness, nausea and vomiting.		

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Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	300-500	mg/kg	Rat	OECD 423 (Acute Oral	
					Toxicity - Acute Toxic	
					Class Method)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute	
					Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>5,11	mg/l/4h	Rat	OECD 436 (Acute	
					Inhalation Toxicity -	
					Acute Toxic Class	
					Method)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Not irritant
					Dermal	
					Irritation/Corrosion)	
Respiratory or skin				Guinea pig	OECD 406 (Skin	No (skin contact)
sensitisation:					Sensitisation)	
Germ cell mutagenicity:				Salmonella	OECD 471 (Bacterial	Negative
				typhimurium	Reverse Mutation Test)	
Germ cell mutagenicity:				Mouse	Regulation (EC)	Negative
					440/2008 B.12	
					(MAMMALIAN	
					ERYTHROCYTE	
					MICRONUCLEUS	
					TEST)	

Hydrocarbons, C9-C12, n-alkai	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)								
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes			
Acute toxicity, by oral route:	LD50	>15000	mg/kg	Rat	OECD 401 (Acute Oral				
					Toxicity)				
Acute toxicity, by dermal route:	LD50	3400	mg/kg	Rabbit	OECD 402 (Acute				
					Dermal Toxicity)				
Acute toxicity, by inhalation:	LC50	>13,1	mg/l/4h	Rat	OECD 403 (Acute	Vapours			
					Inhalation Toxicity)				
Skin corrosion/irritation:						Repeated			
						exposure may			
						cause skin			
						dryness or			
						cracking., Not			
						irritant			
Germ cell mutagenicity:						Negative			
Carcinogenicity:						NegativeBenzen			
A						e content: <0,1%			
Aspiration hazard:						Yes			
Symptoms:						drying of the			
						skin.,			
						headaches,			
						nausea,			
						respiratory distress, burning			
						of the			
						membranes of			
						the nose and			
						throat, coughing,			
						fever, ear			
						noises, hearing			
						problems,			
						drowsiness,			
						unconsciousness			
						, dizziness			

Zinc powder - zinc dust (stabilized)								
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes		
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat				
Acute toxicity, by inhalation:	LC50	>5410	mg/m3/4h	Rat				
Acute toxicity, by inhalation:	LC50	5,41	mg/l/4h	Rat		Dusts or mist		



on health.

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Symptoms:		respiratory
		distress, chest
		pain (thorax
		pain), fever, joint
		pain,
		heart/circulatory
		disorders,
		coughing, metal
		fume fever,
		muscle pains,
		mucous
		membrane
		irritation, chills,
		nausea and
		vomiting.

# 11.2. Information on other hazards

Copper Spray S425 300 ml Art.: 6510 5000, Art.: 6514 5000								
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes		
Endocrine disrupting properties:						Does not apply		
						to mixtures.		
Other information:						No other		
						relevant		
						information		
						available on		
						adverse effects		

# **SECTION 12: Ecological information**

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

Copper Spray S425							
300 ml Art.: 6510 5000, A	Art.: 6514 5000						
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							n.d.a.
degradability:							
12.3. Bioaccumulative							n.d.a.
potential:							
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT							n.d.a.
and vPvB assessment							
12.6. Endocrine							Does not apply
disrupting properties:							to mixtures.
12.7. Other adverse							No information
effects:							available on
							other adverse
							effects on the
							environment.
Other information:							DOC-elimination
							degree(complexi
							ng organic
							substance)>=
							80%/28d: n.a.
Other information:	AOX		0	%			According to the
							recipe, contains
							20 V

Dimethyl ether							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes



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12.1. Toxicity to fish:	LC0	96h	2695	mg/l	Pimephales promelas		
12.1. Toxicity to fish:	LC50	96h	3082	mg/l	Salmo gairdneri		
12.1. Toxicity to fish:	LC50	96h	>4,1	mg/l	Poecilia reticulata		
12.1. Toxicity to daphnia:	EC50	48h	>4,4	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	96h	154,9	mg/l	Chlorella vulgaris		
12.2. Persistence and degradability:		28d	5	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Not readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		-0,07				Bioaccumulation is unlikely (LogPow < 1). 25°C (pH 7)
12.4. Mobility in soil:	H (Henry)		518,6	Pa*m3/m ol			No adsorption in soil.
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC10		>1600	mg/l	Pseudomonas putida		
Other information:							Does not contain any organically bound halogens which can contribute to the AOX value in waste water.DIN EN 1485
Water solubility:			45.60	mg/l			25°C

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	NOEC/NOEL	28d	4,09	mg/l	Oncorhynchus mykiss	QSAR	
12.1. Toxicity to fish:	EC50	96h	18,27	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	7,14	mg/l	Daphnia magna	QSAR	
12.1. Toxicity to daphnia:	LC50	48h	3,87	mg/l	Daphnia magna		Analogous conclusion
12.1. Toxicity to algae:	EC50	72h	13,56	mg/l	Pseudokirchneriell a subcapitata	QSAR	
12.1. Toxicity to algae:	ErL50	72h	55	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	Analogous conclusion
12.2. Persistence and degradability:		28d	98	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable (Analogous conclusion), Analogous conclusion
12.3. Bioaccumulative potential:	Log Kow		4				
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

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Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	0,0384 -	mg/l			
			0,29				

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	NOEC/NOEL		>0,1-<1	mg/l			



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12.1. Toxicity to fish:	LC50	96h	10	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,097	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	72h	4,6	mg/l	Pseudokirchneriell a subcapitata		
12.2. Persistence and degradability:		28d	74,7	%			Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		3,7-6,7				
Toxicity to bacteria:	EC50		>100	mg/l			
Water solubility:			0,04	g/l			

Zinc powder - zinc dust (stabilized)							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	0,238-	mg/l	Oncorhynchus		
			0,56		mykiss		
12.1. Toxicity to daphnia:	EC50	48h	2,8	mg/l	Daphnia magna		

# **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

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

Take full aerosol cans to problem waste collection.

Take emptied aerosol cans to valuable material collection.

#### For contaminated packing material

Pay attention to local and national official regulations.

15 01 04 metallic packaging

15 01 10 packaging containing residues of or contaminated by hazardous substances

Recycling

Do not perforate, cut up or weld uncleaned container.

# **SECTION 14: Transport information**

#### **General statements**

14.1. UN number or ID number: 1950

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

UN 1950 AEROSOLS

2.1 14.3. Transport hazard class(es): 14.4. Packing group:

5F Classification code: LQ: 1 L

14.5. Environmental hazards: environmentally hazardous

Tunnel restriction code:

#### Transport by sea (IMDG-code)

14.2. UN proper shipping name:

AEROSOLS (COPPER)

2.1 14.3. Transport hazard class(es):

14.4. Packing group: F-D. S-U FmS: Marine Pollutant:

14.5. Environmental hazards: environmentally hazardous

Transport by air (IATA)







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14.2. UN proper shipping name:

Aerosols, flammable

14.3. Transport hazard class(es):

21

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. Maritime transport in bulk according to IMO instruments

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.

# **SECTION 15: Regulatory information**

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

Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)! Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered

according to storage, handling etc.):

Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of	Qualifying quantity (tonnes) of
		dangerous substances as referred to in Article 3(10) for the	dangerous substances as referred to in Article 3(10) for the
		` ,	` ,
		application of - Lower-tier	application of - Upper-tier
		requirements	requirements
E1		100	200
E2		200	500
P3a	11.1	150 (netto)	500 (netto)

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC):

77,9 %

Observe incident regulations.

#### 15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

#### **SECTION 16: Other information**

Revised sections:

2

Employee training in handling dangerous goods is required.

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials 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	Evaluation method used
(EC) No. 1272/2008 (CLP)	
Eye Irrit. 2, H319	Classification according to calculation procedure.
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 Acute 1, H400	Classification according to calculation procedure.





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Aquatic Chronic 2, H411	Classification according to calculation procedure.
Aerosol 1, H222	Classification according to calculation procedure.
Aerosol 1, H229	Classification based on the form or physical state.
STOT RE 2, H373	Classification according to calculation procedure.

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.

H226 Flammable liquid and vapour.

H372 Causes damage to organs through prolonged or repeated exposure by inhalation.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

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.

H220 Extremely flammable gas.

EUH066 Repeated exposure may cause skin dryness or cracking.

Eye Irrit. — Eye irritation

Skin Irrit. — Skin irritation

Asp. Tox. — Aspiration hazard STOT SE — Specific target organ toxicity - single exposure - narcotic effects

Aguatic Acute — Hazardous to the aguatic environment - acute

Aquatic Chronic — Hazardous to the aquatic environment - chronic

Aerosol — Aerosols

STOT RE — Specific target organ toxicity - repeated exposure

Flam. Gas — Flammable gases - Flammable gas

Flam. Liq. — Flammable liquid Acute Tox. — Acute toxicity - oral Acute Tox. — Acute toxicity - inhalation

#### **Key literature references and sources for data:**

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.

Guidelines for the preparation of safety data sheets as amended (ECHA).

Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).

Safety data sheets for the constituent substances.

ECHA Homepage - Information about chemicals.

GESTIS Substance Database (Germany).

German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).

EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as

National Lists of Occupational Exposure Limits for each country as amended.

Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

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300 ml Art.: 6510 5000, Art.: 6514 5000

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# Any abbreviations and acronyms used in this document:

according, according to acc., acc. to

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

Adsorbable organic halogen compounds AOX

approx. approximately

Article number Art., Art. no.

ASTM ASTM International (American Society for Testing and Materials)

ATE Acute Toxicity Estimate

Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany) BAM BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

BCF Bioconcentration factor

**BSEF** The International Bromine Council

body weight hw

CAS Chemical Abstracts Service

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

CMR carcinogenic, mutagenic, reproductive toxic

DMEL Derived Minimum Effect Level DNEL Derived No Effect Level DOC Dissolved organic carbon

dw dry weight

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

EbCx, EyCx, EbLx (x = 10, 50)Effect Concentration/Level of x % on reduction of the biomass (algae, plants)

EC **European Community** ECHA European Chemicals Agency

ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect

EEC European Economic Community

**EINECS** European Inventory of Existing Commercial Chemical Substances

**ELINCS** European List of Notified Chemical Substances

ΕN European Norms

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

ErCx,  $E\mu Cx$ , ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)

et cetera etc. EU European Union

EVAL Ethylene-vinyl alcohol copolymer

Fax. Fax number aen.

Globally Harmonized System of Classification and Labelling of Chemicals GHS

**GWP** Global warming potential



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Koc Adsorption coefficient of organic carbon in the soil

Kow octanol-water partition coefficient

IARC International Agency for Research on Cancer IATA International Air Transport Association IBC (Code) International Bulk Chemical (Code)

IMDG-code International Maritime Code for Dangerous Goods

incl. including, inclusive

IUCLID International Uniform Chemical Information Database IUPAC International Union for Pure Applied Chemistry LC50 Lethal Concentration to 50 % of a test population

LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)

Log Koc Logarithm of adsorption coefficient of organic carbon in the soil Log Kow, Log Pow Logarithm of octanol-water partition coefficient

LQ Limited Quantities

MARPOL International Convention for the Prevention of Marine Pollution from Ships

n.a. not applicablen.av. not availablen.c. not checkedn.d.a. no data available

NIOSH National Institute for Occupational Safety and Health (USA)

NLP No-longer-Polymer

NOEC, NOEL No Observed Effect Concentration/Level

OECD Organisation for Economic Co-operation and Development

org. organic

OSHA Occupational Safety and Health Administration (USA)

PBT persistent, bioaccumulative and toxic

PE Polyethylene

PNEC Predicted No Effect Concentration

ppm parts per million PVC Polyvinylchloride

REACHRegistration, 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)

SVHC Substances of Very High Concern

Tel. Telephone

TOC Total organic carbon

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

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.

These statements were made by:

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