

ZN SPRAY

Creation date 10. October 2019
Revision date Version 3.0

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

- 1.1. Product identifier**
Substance / mixture ZN SPRAY
Number mixture
1 02.0003
UFI RTV3-CX53-F20C-UC12
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**
Mixture's intended use Zinc spray - Spray varnish
Mixture uses advised against For professional use only.
- 1.3. Details of the supplier of the safety data sheet**
Supplier
Name or trade name RETECH, s.r.o.
Address Vackova 1541/4, Praha 5 - Stodůlky, 155 00
Czech Republic
Identification number (CRN) 25018205
VAT Reg No CZ25018205
Phone +420327596428
E-mail info@retech.cz
Web address www.retech.com
- Competent person responsible for the safety data sheet**
Name RETECH, s.r.o.
E-mail info@retech.cz
- 1.4. Emergency telephone number**
RETECH, Suchdol 212, 285 02 Suchdol u Kutné Hory, Czech Republic; Telephone number: +420 327 596 128 (7.30-16.00 hour)
Poisoning information centre, Na Bojišti 1, Praha, Czech Republic, Tel.: non-stop +420 224 919 293 or +420 224 915 402, Information on health risks only - acute poisoning of humans and animals.

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

The mixture is classified as dangerous.

Aerosol 1, H222, H229
Eye Irrit. 2, H319
STOT SE 3, H336
Aquatic Chronic 2, H411

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse physico-chemical effects

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

Most serious adverse effects on human health and the environment

Causes serious eye irritation. May cause drowsiness or dizziness. Toxic to aquatic life with long lasting effects.

2.2. Label elements**Hazard pictogram****Signal word**

Danger

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Hazardous substances

acetone
n-butyl acetate
xylene (contains ethylbenzene - CAS 100-41-4)

Hazard statements

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H319 Causes serious eye 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.
P261 Avoid breathing spray.
P264 Wash exposed parts of the body thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear eye protection/face protection.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P337+P313 If eye irritation persists: Get medical advice/attention.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501 Dispose of contents/container to in accordance with national regulations.

Supplemental information

EUH 066 Repeated exposure may cause skin dryness or cracking.
Density 0.733 g/cm³
VOC 88.1 %
Dry matter 9.2 % volume
VOC limit value cat. B (e) : 840 g/l
Max. VOC content in the product in its ready to use condition 645.9 g/l

2.3. Other hazards

Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
CAS: 67-64-1 EC: 200-662-2 Registration number: 01-2119471330-49	acetone	25-<50	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH 066	2

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Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
CAS: 74-98-6 EC: 200-827-9 Registration number: 01-2119486944-21	propane	10-<25	Flam. Gas 1, H220 Press. Gas (compressed gas), H280	
CAS: 106-97-8 EC: 203-448-7 Registration number: 01-2119474691-32	butane (containing < 0,1 % butadiene (203-450-8))	10-<25	Flam. Gas 1, H220 Press. Gas (compressed gas), H280	2
CAS: 123-86-4 EC: 204-658-1 Registration number: 01-2119485493-29	n-butyl acetate	2,5-<10	Flam. Liq. 3, H226 STOT SE 3, H336 EUH 066	2
EC: 905-588-0 Registration number: 01-2119488216-32	xylene (contains ethylbenzene - CAS 100-41-4)	2,5-<10	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Acute Tox. 4, H312+H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373	2
CAS: 7440-66-6 EC: 231-175-3 Registration number: 01-2119467174-37	zinc powder - zinc dust (pyrophoric)	2,5-<10	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	1
CAS: 75-28-5 EC: 200-857-2 Registration number: 01-2119485395-27	isobutane (containing < 0,1 % butadiene (203-450-8))	2,5-<10	Flam. Gas 1, H220 Press. Gas (compressed gas), H280	
CAS: 7429-90-5 EC: 231-072-3	Aluminium powder (pyrophoric)	1-<2,5	Flam. Sol. 1, H228	1, 2
CAS: 7779-90-0 EC: 231-944-3 Registration number: 01-2119485044-40	trizinc bis(orthophosphate)	≥0,25- <1,00	Aquatic Chronic 1, H410	
CAS: 100-41-4 EC: 202-849-4 Registration number: 01-2119489370-35	ethylbenzene	0,1-<1,0	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Acute Tox. 4, H332 STOT RE 2, H373	2
CAS: 1314-13-2 EC: 215-222-5 Registration number: 01-2119463881-32	zinc oxide	≥0,1- <0,25	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	2

Notes

- Note T: This substance may be marketed in a form which does not have the physical hazards as indicated by the classification in the entry in Part 3. If the results of the relevant method or methods in accordance with Part 2 of Annex I of this Regulation show that the specific form of substance marketed does not exhibit this physical property or these physical hazards, the substance shall be classified in accordance with the result or results of this test or these tests. Relevant information, including reference to the relevant test method(s) shall be included in the safety data sheet.
- Substance for which exposure limits of Community for working environment exist.

Full text of all classifications and hazard statements is given in the section 16.

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

If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air. In the event of issues, find medical advice.

If on skin

Generally the product does not irritate the skin.

If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. In the event of issues, find medical advice.

If swallowed

DO NOT INDUCE VOMITING! Provide medical treatment.

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

May cause drowsiness or dizziness.

If on skin

not available

If in eyes

Causes serious eye irritation.

If swallowed

not available

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

not available

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

Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media

Water - full jet.

5.2. Special hazards arising from the substance or mixture

not available

5.3. Advice for firefighters

Use a self-contained breathing apparatus and full-body protective clothing.

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

Provide sufficient ventilation. Use personal protective equipment for work. Keep unprotected persons away.

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.

6.3. Methods and material for containment and cleaning up

Provide sufficient ventilation. Dispose of the collected material according to the instructions in the section 13. Do not flush with water or aqueous cleansing agents.

6.4. Reference to other sections

See the Section 7, 8 and 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Open and handle receptacle with care. Do not spray on an open flame or other ignition source. The product should be used only in the areas where it is not in contact with open fire and other ignition sources. No smoking. Take precautionary measures against static discharge. Pressurised container: May burst if heated. Keep away from sources of heating, ignition and direct sunlight. Do not pierce or burn, even after use.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Storage class

2B - Aerosols

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture contains substances for which occupational exposure limits are set.

European Union

Substance name (component)	Type	Time of exposure	Value	Note	Source
acetone (CAS: 67-64-1)	OEL	8 hours	1210 mg/m ³		EU limits
	OEL	8 hours	500 ppm		
xylene (contains ethylbenzene - CAS 100-41-4)	OEL	8 hours	221 mg/m ³		EU limits
	OEL	8 hours	50 ppm		
	OEL	Short-term	442 mg/m ³		
	OEL	Short-term	100 ppm		
ethylbenzene (CAS: 100-41-4)	OEL	8 hours	442 mg/m ³		EU limits
	OEL	8 hours	100 ppm		
	OEL	Short-term	884 mg/m ³		
	OEL	Short-term	200 ppm		

United Kingdom of Great Britain and Northern Ireland

Substance name (component)	Type	Time of exposure	Value	Note	Source
acetone (CAS: 67-64-1)	WEL	8 hours	1210 mg/m ³		GBR
	WEL	15 minutes	3620 mg/m ³		
	WEL	8 hours	500 ppm		
	WEL	15 minutes	1500 ppm		
butane (containing < 0,1 % butadiene (203-450-8)) (CAS: 106-97-8)	WEL	8 hours	600 ppm		GBR

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Substance name (component)	Type	Time of exposure	Value	Note	Source
butane (containing < 0,1 % butadiene (203-450-8)) (CAS: 106-97-8)	WEL	8 hours	1450 mg/m ³		GBR
	WEL	15 minutes	1810 mg/m ³		
	WEL	15 minutes	750 ppm		
n-butyl acetate (CAS: 123-86-4)	WEL	8 hours	724 mg/m ³		GBR
	WEL	15 minutes	966 mg/m ³		
	WEL	8 hours	150 ppm		
	WEL	15 minutes	200 ppm		
xylene (contains ethylbenzene - CAS 100-41-4)	WEL	8 hours	220 mg/m ³	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.	GBR
	WEL	15 minutes	441 mg/m ³	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.	
	WEL	8 hours	50 ppm	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.	
	WEL	15 minutes	100 ppm	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.	
Aluminium powder (pyrophoric) (CAS: 7429-90-5)	WEL	8 hours	10 mg/m ³	Inhalable dust, Metal	GBR
	WEL	8 hours	4 mg/m ³	Respirable dust, Metal	
ethylbenzene (CAS: 100-41-4)	WEL	8 hours	441 mg/m ³		Gestis
	WEL	Short-term	552 mg/m ³		
	WEL	8 hours	100 ppm		

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

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Substance name (component)	Type	Time of exposure	Value	Note	Source
ethylbenzene (CAS: 100-41-4)	WEL	Short-term	125 ppm		Gestis
zinc oxide (CAS: 1314-13-2)	WEL	8 hours	5 mg/m ³	Respirable dust, Fume	Gestis
	WEL	Short-term	10 mg/m ³	Respirable dust, Fume	

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DNEL

acetone

Workers / consumers	Route of exposure	Value	Effect	Determining method
Consumers	Oral	62 mg/kg bw/day	Systemic chronic effects	
Consumers	Dermal	62 mg/kg bw/day	Systemic chronic effects	
Workers	Dermal	186 mg/kg bw/day	Systemic chronic effects	
Workers	Inhalation	2420 mg/m ³	Local acute effects	
Consumers	Inhalation	200 mg/m ³	Systemic chronic effects	
Workers	Inhalation	1210 mg/m ³	Systemic chronic effects	

n-butyl acetate

Workers / consumers	Route of exposure	Value	Effect	Determining method
Consumers	Inhalation	859.4 mg/m ³	Systemic acute effects	
Workers	Inhalation	960 mg/m ³	Systemic acute effects	
Consumers	Inhalation	859.7 mg/m ³	Local acute effects	
Workers	Inhalation	960 mg/m ³	Local acute effects	
Consumers	Inhalation	102.34 mg/m ³	Systemic chronic effects	
Workers	Inhalation	480 mg/m ³	Systemic chronic effects	
Consumers	Inhalation	102.34 mg/m ³	Local chronic effects	
Workers	Inhalation	480 mg/m ³	Local chronic effects	

xylene (contains ethylbenzene - CAS 100-41-4)

Workers / consumers	Route of exposure	Value	Effect	Determining method
Consumers	Oral	1.6 mg/kg bw/day	Systemic chronic effects	
Consumers	Dermal	108 mg/kg bw/day	Systemic chronic effects	
Workers	Dermal	180 mg/kg bw/day	Systemic chronic effects	
Workers	Inhalation	289 mg/m ³	Local acute effects	
Consumers	Inhalation	14.8 mg/m ³	Systemic chronic effects	
Workers	Inhalation	77 mg/m ³	Systemic chronic effects	

zinc powder - zinc dust (pyrophoric)

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Oral	50 mg/kg bw/day	Systemic chronic effects	
Consumers	Dermal	5000 mg/kg bw/day	Systemic chronic effects	
Workers	Dermal	5000 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	2.5 mg/m ³	Systemic chronic effects	
Workers	Inhalation	5 mg/m ³	Systemic chronic effects	

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PNEC

acetone

Route of exposure	Value	Determining method
Freshwater sediment	30.4 mg/kg of dry substance of sediment	
Seawater	1.06 mg/l	
Sea sediments	3.04 mg/kg of dry substance of sediment	
Soil (agricultural)	29.5 mg/kg of dry substance of soil	
Freshwater environment	10.6 mg/l	
Microorganisms in wastewater treatment plants	100 mg/l	

n-butyl acetate

Route of exposure	Value	Determining method
Freshwater environment	0.18 mg/l	
Seawater	0.015 mg/l	
Freshwater sediment	0.981 mg/kg of dry substance of sediment	
Water (occasional leak)	0.36 mg/l	
Soil (agricultural)	0.0903 mg/kg of dry substance of soil	
Microorganisms in wastewater treatment plants	35.6 mg/l	
Sea sediments	0.0981 mg/kg of dry substance of sediment	

xylene (contains ethylbenzene - CAS 100-41-4)

Route of exposure	Value	Determining method
Freshwater environment	0.327 mg/l	
Seawater	0.327 mg/l	
Freshwater sediment	12.46 mg/kg of dry substance of sediment	
Soil (agricultural)	2.31 mg/kg of dry substance of soil	
Microorganisms in wastewater treatment plants	6.58 mg/l	
Sea sediments	12.46 mg/kg of dry substance of sediment	

zinc powder - zinc dust (pyrophoric)

Route of exposure	Value	Determining method
Freshwater environment	20.6 mg/l	
Seawater	6.1 mg/l	
Freshwater sediment	118 mg/kg of dry substance of sediment	
Soil (agricultural)	56.6 mg/kg of dry substance of soil	
Microorganisms in wastewater treatment plants	52 mg/l	

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zinc powder - zinc dust (pyrophoric)

Route of exposure	Value	Determining method
Sea sediments	56.5 mg/kg of dry substance of sediment	

8.2. Exposure controls

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases / fumes / aerosols. Avoid contact with the eyes and skin.

Eye/face protection

Tightly sealed goggles.

Skin protection

Hand protection: Solvent resistant gloves. The final selection of the glove material must be carried out on the basis of penetration times, permeation rates and degradation. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Material of gloves: Nitrile rubber, NBR. Recommended thickness of the material: ≥ 0.5 mm. Penetration time of glove material: The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed. Other protection: protective workwear.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Filter AX/P2.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	aerosol
Physical state	liquid at 20°C
color	transparent
Odour	characteristic
Odour threshold	data not available
pH	data not available
Melting point/freezing point	data not available
Initial boiling point and boiling range	-44.5 °C
Flash point	-97 °C
Evaporation rate	data not available
Flammability (solid, gas)	Extremely flammable aerosol.
Upper/lower flammability or explosive limits	
flammability limits	data not available
explosive limits	
bottom	1.1 %
upper	13.0 %
Vapour pressure	8300 hPa at 20 °C
Vapour density	data not available
Relative density	data not available
Solubility(ies)	
solubility in water	almost insoluble
solubility in fats	data not available
Partition coefficient: n-octanol/water	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
Viscosity	data not available

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Explosive properties

The product does not have explosive properties but can be explosive when blended with air.
data not available

Oxidising properties
data not available

9.2. Other information

Density	0.733 g/cm ³ at 20 °C
ignition temperature	365 °C
content of organic solvents (VOC)	88.1 %
solid content (dry matter)	9.2 % volume
VOC limit value	cat. B (e) : 840 g/l
Max. VOC content in the product in its ready to use condition	645.9 g/l
Product is not selfigniting.	

SECTION 10: Stability and reactivity

10.1. Reactivity

not available

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Unknown.

10.4. Conditions to avoid

not available

10.5. Incompatible materials

not available

10.6. Hazardous decomposition products

Unknown.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

No toxicological data is available for the mixture.

Acute toxicity

Based on available data the classification criteria are not met.

acetone

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD ₅₀	5800 mg/kg		Rat	
Dermal	LD ₅₀	7800 mg/kg		Rabbit	
Inhalation	LC ₅₀	>20 mg/l	4 hour	Rat	

n-butyl acetate

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD ₅₀	10760 mg/kg		Rat	
Dermal	LD ₅₀	>14000 mg/kg		Rabbit	
Inhalation	LC ₅₀	>20 mg/l	4 hour	Rat	

trizinc bis(orthophosphate)

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD ₅₀	5000 mg/kg		Rat	

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xylene (contains ethylbenzene - CAS 100-41-4)

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD ₅₀	4300 mg/kg		Rat	
Dermal	LD ₅₀	2000 mg/kg		Rabbit	

zinc powder - zinc dust (pyrophoric)

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD ₅₀	>2000 mg/kg		Rat	
Inhalation	LC ₅₀	>5.4 mg/kg	4 hour	Rat	

Skin corrosion/irritation

Based on available data the classification criteria are not met.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Based on available data the classification criteria are not met.

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Carcinogenicity

Based on available data the classification criteria are not met.

Reproductive toxicity

Based on available data the classification criteria are not met.

Toxicity for specific target organ - single exposure

May cause drowsiness or dizziness.

Toxicity for specific target organ - repeated exposure

Based on available data the classification criteria are not met.

Aspiration hazard

Based on available data the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

Toxic to aquatic life with long lasting effects.

acetone

Parameter	Value	Time of exposure	Species	Environment
EC ₅₀	8800 mg/l	48 hour	Invertebrates (Daphnia magna)	
EC ₅₀	8300 mg/l	96 hour	Fishes	

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n-butyl acetate

Parameter	Value	Time of exposure	Species	Environment
LC ₅₀	18 mg/l	96 hour	Fishes	
EC ₅₀	44 mg/l	48 hour	Daphnia (Daphnia magna)	

trizinc bis(orthophosphate)

Parameter	Value	Time of exposure	Species	Environment
LC ₅₀	0.14 mg/l	96 hour	Fishes (Oncorhynchus mykiss)	
EC ₅₀	2.34 mg/l	48 hour	Daphnia (Daphnia magna)	
ErC ₅₀	0.14 mg/l	72 hour	Algae (Desmodesmus subspicatus)	

xylene (contains ethylbenzene - CAS 100-41-4)

Parameter	Value	Time of exposure	Species	Environment
EC ₅₀	3.2-9.5 mg/l	48 hour	Daphnia (Daphnia magna)	
LC ₅₀	8.9-16.4 mg/l	96 hour	Fishes (Pimephales promelas)	

zinc powder - zinc dust (pyrophoric)

Parameter	Value	Time of exposure	Species	Environment
EC ₅₀	354 µg/l	48 hour	Daphnia (Daphnia magna)	
EC 10	59.2 µg/l	21 day	Daphnia (Daphnia magna)	
EC 10	27.3 µg/l	72 hour	Algae	
EC ₅₀	0.17 mg/l	72 hour	Algae (Selenastrum capricornutum)	
LC ₅₀	0.41 mg/l	96 hour	Fishes (Oncorhynchus mykiss)	
EC ₅₀	1 mg/l	48 hour	Daphnia (Daphnia magna)	
EC ₅₀	0.527 mg/l	96 hour	Algae	
LC ₅₀	238-269 µg/l	96 hour	Fishes (Pimephales promelas)	

Chronic toxicity

xylene (contains ethylbenzene - CAS 100-41-4)

Parameter	Value	Time of exposure	Species	Environment
NOEC	1.3 mg/l		Fishes	
NOEC	0.96 mg/l	7 day	Daphnia (Daphnia magna)	
NOEC	0.44 mg/l	72 hour	Algae	
NOEC	16 mg/l	28 day	Bacteria	

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zinc powder - zinc dust (pyrophoric)

Parameter	Value	Time of exposure	Species	Environment
NOEC	178 µg/l	21 day	Crustaceans (Palaemon elegans)	
NOEC	9 mg/l	72 hour	Algae and other aquatic plants (Ceratophyllum demersum)	
NOEC	0.017 mg/l	72 hour	Algae (Pseudokirchneriella subcapitata)	
NOEC	72.9 µg/l	72 hour	Algae (Pseudokirchneriella subcapitata)	
NOEC	8.3 µg/l	4 day	Fishes (Cyprinus carpio)	

12.2. Persistence and degradability

Data not available.

12.3. Bioaccumulative potential

Not available.

12.4. Mobility in soil

Not available.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Other adverse effects

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.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

Waste type code

16 03 05 organic wastes containing dangerous substances

Packaging waste type code

15 01 11 metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers

SECTION 14: Transport information

14.1. UN number

UN 1950

14.2. UN proper shipping name

AEROSOLS

14.3. Transport hazard class(es)

2 Gases

14.4. Packing group

not available

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14.5. Environmental hazards

Product contains environmentally hazardous substances: zinc powder - zinc dust (pyrophoric)

14.6. Special precautions for user

Reference in the Sections 4 to 8.

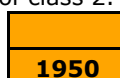
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not available

Additional information

Stowage Code: SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters. Segregation Code: SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.

Hazard identification No.



(Kemler Code)

UN number

5F

Classification code

Safety signs



2.1+hazardous for the environment

Road transport - ADR

Limited quantities

1L

Excepted quantities

E0

Tunnel restriction code

(D)

Marine transport - IMDG

Hazard initiator

zinc powder-zinc dust (stabilized), solvent naphta (petroleum), light arom., zinc oxide, Zn3(PO4)2

EmS (emergency plan)

F-D, S-U

Marine Pollutant

Yes

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended.

15.2. Chemical safety assessment

not available

SECTION 16: Other information**A list of standard risk phrases used in the safety data sheet**

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H229	Pressurised container: May burst if heated.

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H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory 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.
H312+H332	Harmful in contact with skin or if inhaled.

Guidelines for safe handling used in the safety data sheet

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing spray.
P264	Wash exposed parts of the body thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents/container to in accordance with national regulations.

A list of additional standard phrases used in the safety data sheet

EUH 066	Repeated exposure may cause skin dryness or cracking.
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Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL	Derived no-effect level
EC	Identification code for each substance listed in EINECS
EC ₅₀	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC ₅₀	Concentration causing 50% blockade
ICAO	International Civil Aviation Organization

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IMDG	International Maritime Dangerous Goods
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC ₅₀	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD ₅₀	Lethal dose of a substance in which it can be expected death of 50% of the population
LOAEC	Lowest observed adverse effect concentration
LOAEL	Lowest observed adverse effect level
log K _{ow}	Octanol-water partition coefficient
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEC	No observed adverse effect concentration
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
NOEL	No observed effect level
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted no-effect concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative

Acute Tox.	Acute toxicity
Aerosol	Aerosol
Aquatic Acute	Hazardous to the aquatic environment
Aquatic Chronic	Hazardous to the aquatic environment
Asp. Tox.	Aspiration hazard
Eye Irrit.	Eye irritation
Flam. Gas	Flammable gas
Flam. Liq.	Flammable liquid
Flam. Sol.	Flammable solid
Press. Gas	Gases under pressure
Skin Irrit.	Skin irritation
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

The changes (which information has been added, deleted or modified)

2, 3, 8, 11, 12, 15, 16

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Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.