

1. Identification of the substance/mixture and of the company/undertaking

Product identifier

Commercial Product Name **fischer Zinc Spray**

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

Relevant identified uses corrosion protection

Details of the supplier of the safety data sheet

Company designation fischerwerke GmbH & Co. KG
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Emergency telephone number

Emergency telephone number +49(0)6132-84463 (24h)

2. Hazards identification

Classification of the substance or mixture

Classification according to Directive 67/548/EEC / 1999/45/EEC F+; R12 R66 R67 N; R50/53

Classification according to Regulation (EC) No. 1272/2008 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Asp. Tox. 1; H304 Aquatic Acute 1; H400 Aquatic Chronic 1; H410

Label elements

Hazard symbols

F+



F+: Extremely flammable

N



N: Dangerous for the environment

R-phrase(s)

R12: Extremely flammable.

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R66: Repeated exposure may cause skin dryness or cracking.

R67: Vapours may cause drowsiness and dizziness.

S-phrase(s)	<p>S2: Keep out of the reach of children.</p> <p>S23: Do not breathe spray.</p> <p>S29/56: Do not empty into drains; dispose of this material and its container at hazardous or special waste collection point.</p> <p>S46: If swallowed, seek medical advice immediately and show this container or label.</p> <p>S51: Use only in well-ventilated areas.</p>
Labelling (67/548/EEC or 1999/45/EC)	The classification corresponds to the current EC listing, but is enhanced by specialised literature data and the Company's own information.
Special labelling for certain preparations	<p>Pressurized container: Protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.</p> <p>Do not spray on a naked flame or any other incandescent material.</p> <p>Keep away from sources of ignition – No smoking.</p> <p>Keep away from children.</p>

3. Composition/information on ingredients

Hazardous ingredients

Ingredient		Classification (EEC) No 67/548	Concentration
		Classification (EC) 1272/2008	
zinc powder – zinc dust (pyrophoric)	CAS No.: 7440-66-6 EC-No.: 231-175-3 Index-No.: 030-001-00-1	F; R15-17 N; R50-53F; R15-17 N; R50-53 Water-react. 1; H260 Pyr. Sol. 1; H250 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	25.0 – 50.0 %
Solvent naphtha (petroleum), light arom.	CAS No.: 64742-95-6 EC-No.: 265-199-0 Index-No.: 649-356-00-4	Xn; R65 Xi; R37 N; R51/53Carc. Cat. 2; R45 Xn; R65 Carc. 1B; H350 Muta. 1B; H340 Asp. Tox. 1; H304	10.0 – 25.0 %
acetone	CAS No.: 67-64-1 EC-No.: 200-662-2 Index-No.: 606-001-00-8	F; R11 Xi; R36 R66 R67F; R11 Xi; R36 R66 R67 Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	10.0 – 25.0 %
butane	CAS No.: 106-97-8 EC-No.: 203-448-7 Index-No.: 601-004-00-0	F+; R12F+; R12 Flam. Gas 1; H220 Press. Gas; H220	2.5 – 10.0 %
isobutane	CAS No.: 75-28-5 EC-No.: 200-857-2 Index-No.: 601-004-00-0	F+; R12F+; R12 Flam. Gas 1; H220 Press. Gas; H220	2.5 – 10.0 %
propane	CAS No.: 74-98-6 EC-No.: 200-827-9 Index-No.: 601-003-00-5	F+; R12F+; R12 Flam. Gas 1; H220 Press. Gas; H220	2.5 – 10.0 %
xylene	CAS No.: 1330-20-7 EC-No.: 215-535-7 Index-No.: 601-022-00-9	R10 Xn; R20/21 Xi; R38R10 Xn; R20/21 Xi; R38 Flam. Liq. 3; H226 Acute Tox. 4 *; H332 Acute Tox. 4 *; H312 Skin Irrit. 2; H315	2.5 – 10.0 %
ethylbenzene	CAS No.: 100-41-4 EC-No.: 202-849-4 Index-No.: 601-023-00-4	F; R11 Xn; R20F; R11 Xn; R20 Flam. Liq. 2; H225 Acute Tox. 4 *; H332	< 2.5 %

4. First aid measures

Description of first aid measures

General advice	If symptoms persist, call a physician. Take off all contaminated clothing immediately. Remove/Take off immediately all contaminated clothing.
If inhaled	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If unconscious place in recovery position and seek medical advice.
In case of skin contact	IF ON SKIN: Gently wash with plenty of soap and water.
In case of eye contact	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If swallowed	If swallowed, seek medical advice immediately and show this container or label. Clean mouth with water and drink afterwards plenty of water. Drink 1 or 2 glasses of water. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Symptoms	No data available
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Indication of any immediate medical attention and special treatment needed

Immediate medical attention	No data available
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5. Firefighting measures

Extinguishing media

Suitable extinguishing media	Carbon dioxide (CO ₂) Dry powder Foam Water spray jet
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Extinguishing media which must not be used for safety reasons	High volume water jet
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Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases	Container may rupture on heating. Heating or fire can release toxic gas. May form explosive mixtures in air.
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Advice for firefighters

Special protective equipment for firefighting	In the event of fire, wear self-contained breathing apparatus. In the event of fire and/or explosion do not breathe fumes.
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Additional information on fire-fighting

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Keep containers and surroundings cool with water spray. Container may rupture on heating.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions

Ensure adequate ventilation, especially in confined areas.
Keep away from sources of ignition – No smoking.
Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions

The product should not be allowed to enter drains, water courses or the soil.
Prevent spreading over a wide area (e.g. by containment or oil barriers).

Methods and material for containment and cleaning up

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Ensure adequate ventilation.

Reference to other sections

Reference to other sections

See chapter 8/13

Additional information

Other information

Treat recovered material as described in the section "Disposal considerations".
Dispose of in accordance with local regulations.

7. Handling and storage

Precautions for safe handling

Advice on safe handling

Handle and open container with care.
Provide sufficient air exchange and/or exhaust in work rooms.
Vapours are heavier than air and may spread along floors.
BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50°C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.

Advice on protection against fire and explosion

Pressurized container: Protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.
Take precautionary measures against static discharges.
Do not spray on a naked flame or any other incandescent material.
In use, may form flammable/explosive vapour-air mixture.
Keep away from sources of ignition – No smoking.

Conditions for safe storage, including any incompatibilities

Storage space and container requirements Keep containers tightly closed in a cool, well-ventilated place.
Container may rupture on heating.
Store in accordance with local regulations.

German storage class 2B (TRGS 510)

8. Exposure controls/personal protection

Control parameters

acetone, propan-2-one, propanone

Great Britain	Long-term exposure value/ ppm	500
	Long-term exposure value/ mg/ m3	1210
	Short-term exposure value / ppm	1500
	Short-term exposure value / mg/ m3	3620
	remarks	R11 36, 66,67
	Source	EH40/200 Workplace exposure limits (Octobre 2007)

Europe	Long-term exposure value/ mg/ m3	1 210
	Long-term exposure value/ ppm	500
	Issuing date	2000/39
	Source	DIRECTIVE 2009/161/EU

xylene, mixed isomers, pure

Great Britain	Long-term exposure value/ ppm	50
	Long-term exposure value/ mg/ m3	220
	Short-term exposure value / ppm	100
	Short-term exposure value / mg/ m3	441
	remarks	Sk BMGV R1 0,20/21,38
	Source	EH40/200 Workplace exposure limits (Octobre 2007)

Europe	Long-term exposure value/ mg/ m3	221
	Long-term exposure value/ ppm	50
	Short-term exposure value / mg/ m3	442
	Short-term exposure value / ppm	100
	Note	Skin
	Issuing date	2000/39
	Source	DIRECTIVE 2009/161/EU

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Great Britain	Long-term exposure value/ ppm	100
	Long-term exposure value/ mg/ m3	441
	Short-term exposure value / ppm	125
	Short-term exposure value / mg/ m3	552
	remarks	Sk R11.20
	Source	EH40/200 Workplace exposure limits (Octobre 2007)

Europe	Long-term exposure value/ mg/ m3	442
	Long-term exposure value/ ppm	100
	Short-term exposure value / mg/ m3	884
	Short-term exposure value / ppm	200
	Note	Skin
	Issuing date	2000/39
	Source	DIRECTIVE 2009/161/EU

Exposure controls

Respiratory protection	In case of inadequate ventilation wear respiratory protection.
Hand protection	Wear protective gloves.
Suitable material:	butyl-rubber, Chloroprene, Nitrile rubber
Unsuitable material:	PVC disposable gloves
Material thickness:	>= 0,5 mm
Break through time:	>120 min
remarks:	Replace when worn. Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature).
Eye protection	Tightly fitting safety goggles
Skin and body protection	Wear suitable protective equipment.
Note:	Choose body protection according to the amount and concentration of the dangerous substance at the work place.
General protective and hygiene measures	Smoking, eating and drinking should be prohibited in the application area. Avoid contact with skin, eyes and clothing. Take off all contaminated clothing immediately. Do not breathe vapors, mist or gas. Wash hands before breaks and at the end of workday. Keep away from food, drink and animal feedingstuffs. Use protective skin cream before handling the product.
Information on environmental protection regulations	No special environmental precautions required.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Aerosol
Form	aerosol
Colour	grey
Odour	acetone-like solvent
Odour threshold :	not determined
pH	not determined
Melting point	not determined not determined
Boiling point / °C	not applicable (Aerosol)
Flash point / °C	not applicable (aerosol)
Evaporation rate	No data available
Flammability :	No data available
Explosion limits	
Lower limit:	not determined
Upper limit:	not determined
Risk of explosion.	In use, may form flammable/explosive vapour-air mixture.
Vapour pressure	not determined
Density	0.93 g/cm ³
temperature:	20 °C
Relative density	not determined
Water solubility	insoluble
Solubility	No data available
Partition coefficient (n-octanol/water)	not determined
Autoignition temperature	not determined
Autoinflammability	not auto-flammable
Decomposition temperature	not determined
Viscosity, dynamic	not determined
Oxidation	No data available

Other information

Ignition temperature	> 200 °C
Relative vapour density (air=1)	not determined
Miscibility with water	immiscible
Solvent content (%):	67.7 %

10. Stability and reactivity

Reactivity

Thermal decomposition	No decomposition if stored and applied as directed.
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Chemical stability

Chemical stability	Stable under recommended storage conditions.
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Possibility of hazardous reactions

Hazardous reactions	None under normal processing.
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Conditions to avoid

Conditions to avoid	Container may rupture on heating. No decomposition if used as directed.
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Incompatible materials

Materials to avoid	No dangerous reaction known under conditions of normal use.
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Hazardous decomposition products

Hazardous decomposition products	Carbon oxides
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11. Toxicological information

Information on toxicological effects

Oral toxicity / mg/kg	no data available
Dermal toxicity / mg/kg	no data available
Inhalative toxicity / mg/l	no data available
Irritant effect on skin	No skin irritation
Irritant effect on eyes	irritant effects
Sensitization	No sensitization responses were observed.
Symptoms	No data available

Additional information

Other information (chapter 11.)	irritating High concentration of vapours may induce unconsciousness.
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12. Ecological information

Toxicity

Toxicity to fish / mg/l no data available

remarks: Toxic to fish.

Toxicity to daphnia / mg/l no data available

Toxicity to algae / mg/l no data available

Persistence and degradability

Elimination and distribution mechanisms No information available.

Elimination in purification plant No data available

Biodegradability No data available

Bioaccumulative potential

Bioaccumulation no data available

Bioconcentration factor (BCF) No data available

Mobility in soil

Distribution in the environment No data available

Mobility

Mobility: No data available

Results of PBT and vPvB assessment

Results of PBT characteristics determination not applicable

Other adverse effects

Further information on ecology The product should not be allowed to enter drains, water courses or the soil.
Toxic effects on fish and plankton
Toxic to aquatic life.

13. Disposal considerations

Waste treatment methods

Disposal considerations Disposal together with normal waste is not allowed. Special disposal required according to local regulations.
Do not flush into surface water or sanitary sewer system.

Waste Code 160504 – gases in pressure containers (including halons) containing dangerous substances
150104 – metallic packaging

14. Transport information

	Land transport GGVS/ ADR/RID	Marine transport IMDG/ GGVSee	Air transport ICAO/IATA
UN-No	1950	1950	1950
Class	2	2.1	2.1
Description of the goods	AEROSOLS	AEROSOLS	AEROSOLS
Proper shipping name		AEROSOLS	Aerosols, flammable
Labels	2.1, U – Environmentally hazardous	2.1, U – Environmentally hazardous	2.1 – Gases: Flammable; U – Environmentally hazardous
Category	2		
Classification Code	5F		
Tunnel restriction code	D		
remarks	inflammable	(maximum 1 L) flammable	
Environmental hazards	Dangerous for the environment	Dangerous for the environment	Dangerous for the environment
Danger releasing substance		Naphtha (petroleum), hydrotreated light	
EmS		F-D;S-U	
Stowage category		A	

Special precautions for user

Precautions not required under normal use

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code not applicable

15. Regulatory information

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

Water hazard class (self-classification) 2

Chemical safety assessment

Safety assessment Not relevant. Chemical safety assessments for substances in this mixture were not carried out.

16. Other information

R phrase(s) applying to ingredients

- R10: Flammable.
- R11: Highly flammable.
- R12: Extremely flammable.
- R15: Contact with water liberates extremely flammable gases.
- R17: Spontaneously flammable in air.
- R20: Harmful by inhalation.
- R20/21: Harmful by inhalation and in contact with skin.

	R36: Irritating to eyes.
	R38: Irritating to skin.
	R46: May cause heritable genetic damage.
	R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
	R65: Harmful: may cause lung damage if swallowed.
	R66: Repeated exposure may cause skin dryness or cracking.
	R67: Vapours may cause drowsiness and dizziness.
H-statement(s) applying to ingredients	H220: Extremely flammable gas.
	H225: Highly flammable liquid and vapour.
	H226: Flammable liquid and vapour.
	H250: Catches fire spontaneously if exposed to air.
	H260: In contact with water releases flammable gases which may ignite spontaneously.
	H304: May be fatal if swallowed and enters airways.
	H312: Harmful in contact with skin.
	H315: Causes skin irritation.
	H319: Causes serious eye irritation.
	H332: Harmful if inhaled.
	H336: May cause drowsiness or dizziness.
	H340: May cause genetic defects .
	H350: May cause cancer .
	H410: Very toxic to aquatic life with long lasting effects.

This information is provided in accordance with the current status of our knowledge and experience. The Safety Data Sheet describes products with a view to relevant safety requirements. This information does not constitute a warranty of properties, features or qualities.