

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

Name of product Zinc-Spray
Code-Nr. 110000

1.2. Relevant identified uses of the substance or mixture and uses advised against**Recommended intended purpose(s)**

Technical Aerosols

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

WEICON GmbH & Co. KG
Königsberger Str. 255, DE-48157 Münster
Phone : +49(0)251 / 9322 - 0, Fax : +49(0)251 / 9322 - 244
E-Mail : msds@weicon.de
Internet : www.weicon.de

Advice

Produktsicherheit / Product-Safety-Department
Phone : +49(0)251 / 9322 - 0
Fax : +49(0)251 / 9322 - 244
E-mail (competent person):
msds@weicon.de

1.4. Emergency telephone number

EMERGENCY CONTACT - UK, UAE, South Africa (24h): Tel:
++44 1865 407333 (English)
TRANSPORT EMERGENCY CONTACT - UK, UAE, South
Africa (24h): Tel: ++44 1865 407333 (English)

Manufacturer

WEICON GmbH & Co. KG
Königsberger Str. 255, DE-48157 Münster

1.4. Emergency telephone number

GIFTNOTRUF/TRANSPORTNOTRUF - Deutschland (24h):
Tel: ++49 69 222 25285 (Deutsch, Englisch)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]**

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
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Aerosol 1	H222, H229	
Eye Irrit. 2	H319	
Aquatic Chronic 2	H411	

Hazard Statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements
Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]


GHS02



GHS07



GHS09

Signal word

Danger

Hazard Statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements

P102	Keep out of reach of children.
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.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P501	Dispose of contents/container to hazardous or special waste collection point.

2.3. Other hazards

Product has an anesthetic effect.

Information pertaining to special dangers for human and environment

In extensive use, formation of flammable / explosive vapour-air mixture is possible.

Results of PBT and vPvB assessment

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

SECTION 3: Composition/ information on ingredients
3.1. Substances

not applicable

3.2. Mixtures
Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
67-64-1	200-662-2	acetone	3 < 10	Flam. Liq. 2, H225 / Eye Irrit. 2, H319 / STOT SE 3, H336



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Hazardous ingredients (continued)

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
71-36-3	200-751-6	butan-1-ol	1 < 2	Flam. Liq. 3, H226 / Acute Tox. 4, H302 / STOT SE 3, H335 / Skin Irrit. 2, H315 / Eye Dam. 1, H318 / STOT SE 3, H336
100-41-4	202-849-4	ethylbenzene	< 5	Flam. Liq. 2, H225 / Acute Tox. 4, H332 / STOT RE 2, H373 (hearing organs) / Asp. Tox. 1, H304
7429-90-5	231-072-3	aluminium powder (stabilised)	< 5	Water-react. 2, H261 / Flam. Sol. 1, H228
7440-66-6	231-175-3	zinc powder - zinc dust (stabilized)	10 < 20	Aquatic Acute 1, H400 / Aquatic Chronic 1, H410
115-10-6	204-065-8	dimethylether	50 < 100	Flam. Gas 1, H220 / Press. Gas
123-86-4	204-658-1	n-butyl acetate	< 10	Flam. Liq. 3, H226 / STOT SE 3, H336
141-78-6	205-500-4	ethyl-acetate	3 < 10	Flam. Liq. 2, H225 / Eye Irrit. 2, H319 / STOT SE 3, H336
68308-64-5	269-662-8	Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates	< 0,25	Acute Tox. 4, H302 / Skin Corr. 1B, H314 / Aquatic Acute 1, H400
1330-20-7	215-535-7	xylene	5 < 10	Flam. Liq. 3, H226 / STOT RE 2, H373 / Asp. Tox. 1, H304 / Acute Tox. 4, H312, H332 / Skin Irrit. 2, H315 / Eye Irrit. 2, H319 / STOT SE 3, H335

REACH

CAS No	Name	REACH registration number
67-64-1	acetone	01-2119471330-49
71-36-3	butan-1-ol	01-2119484630-38
100-41-4	ethylbenzene	01-2119489370-35
7429-90-5	aluminium powder (stabilised)	01-2119529243-45
7440-66-6	zinc powder - zinc dust (stabilized)	01-2119467174-37
115-10-6	dimethylether	01-2119472128-37
123-86-4	n-butyl acetate	01-2119485493-29
141-78-6	ethyl-acetate	01-2119475103-46
68308-64-5	Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates	not subject to registration
1330-20-7	xylene	01-2119488216-32

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.

In case of inhalation

Remove the casualty into fresh air and keep him immobile.

In the event of symptoms refer for medical treatment.

In case of skin contact

In case of contact with skin wash off with soap and water.

Consult a doctor if skin irritation persists.

In case of eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

In case of ingestion

Do not induce vomiting.

Medical treatment.



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

No information available.

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

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam

Carbon dioxide

Dry sand

Unsuitable extinguishing media

water

5.2. Special hazards arising from the substance or mixture

May lead to formation of explosive/easily ignitable vapour air mixtures.

Danger of bursting

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Fire-fighting operations, rescue and clearing work under effect of combustion and smoulder gases just may be done with breathing apparatus.

Do not inhale explosion and/or combustion gases.

Additional information

Vapours are heavier than air and will spread on the ground.

Cool endangered containers with water spray jet.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

! SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Ensure adequate ventilation.

Use personal protective clothing.

Keep away sources of ignition.

Use breathing apparatus if exposed to vapours/dust/aerosol.

Pay attention to extension of gas especially at ground (heavier than air) and in direction of the wind.

6.2. Environmental precautions

Inform pollution control authorities if product gets into the sewerage systems or open waters.

Do not discharge into surface waters/groundwater.

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (e.g. sand, kieselguhr, acid binder, general-purpose binder, sawdust).

After taking up the material dispose according to regulation.

Additional Information

Sort out leaky cans and dispose according to regulations.

6.4. Reference to other sections

Safe handling: see section 7

Disposal: see section 13

Personal protection equipment: see section 8

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

Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

Take measures against electrostatically charging.

General protective measures

Avoid contact with eyes and skin

Do not inhale gases/vapours/aerosols.

Hygiene measures

At work do not eat, drink, smoke or take drugs.

Wash hands before breaks and after work.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking

Do not spray on a naked flame or any incandescent material.

Pressurized container.

Do not pierce or burn even after use.

Vapours can form an explosive mixture with air.

Avoid effect of heat.

Use explosion-proof equipment / fittings and non-sparking tools.

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

Keep in closed original container.

Adhere to administrative regulations relating to storage of compressed gas cylinders / containers.

Further information on storage conditions

Store at +5 till +25 °C.

Protect from direct solar radiation.

Storage temperature may not exceed 50°C (=122°F).

Store container at cool and aired place.

7.3. Specific end use(s)**Recommendation(s) for intended use**

See section 1.2

! SECTION 8: Exposure controls/personal protection**8.1. Control parameters****! Ingredients with occupational exposure limits to be monitored**

CAS No	Name	Code	[mg/m ³]	[ppm]	Remark
67-64-1	Acetone	8 hours	1210	500	EH40/2005
		Short-term	3620	1500	
71-36-3	butan-1-ol	8 hours	154	50	EH40/2005
		Short-term			
115-10-6	Dimethyl ether	8 hours	766	400	EH40/2005
		Short-term	958	500	
141-78-6	Ethyl acetate	8 hours		200	EH40/2005
		Short-term		400	
100-41-4	Ethylbenzene	8 hours	441	100	EH40/2005
		Short-term	552	125	
1330-20-7	Xylene, o-, m-, p- or mixed isomers	8 hours	220	50	EH40/2005
		Short-term	441	100	



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Indicative occupational exposure limit values (91/322/EEC, 2000/39/EC, 2006/15/EC or 2009/161/EU)

CAS No	Name	Code	[mg/m3]	[ppm]	Remark
100-41-4	ethylbenzene	8 hours	442	100	skin
		Short-term	884	200	
115-10-6	dimethylether	8 hours	1920	1000	
67-64-1	acetone	8 hours	1210	500	

DNEL-/PNEC-values

DNEL worker

CAS No	Substance name	Value	Code	Remark
100-41-4	ethylbenzene	77 mg/m3	DNEL long-term inhalative (systemic)	
115-10-6	dimethylether	1894 mg/m3	DNEL long-term inhalative (systemic)	
123-86-4	n-butyl acetate	960 mg/m3	DNEL acute inhalative (systemic)	
		480 mg/m3	DNEL long-term inhalative (systemic)	
		11 mg/kg	DNEL long-term dermal (systemic)	
		2 mg/kg	DNEL short-term oral (acute)	
		11 mg/kg	DNEL acute dermal, short-term (systemic)	
		300 mg/m3	DNEL long-term inhalative (local)	
		600 mg/m3	DNEL acute inhalative (local)	
1330-20-7	xylene	77 mg/m3	DNEL long-term inhalative (systemic)	
		289 mg/m3	DNEL acute inhalative (systemic)	
		180 mg/kg	DNEL long-term dermal (systemic)	
		289 mg/m3	DNEL acute inhalative (local)	
		289 mg/m3	DNEL acute inhalative (local)	
141-78-6	ethyl-acetate	1468 mg/m3	DNEL acute inhalative (systemic)	
		734 mg/m3	DNEL long-term inhalative (local)	
		63 mg/kg	DNEL long-term dermal (systemic)	
		1468 mg/m3	DNEL acute inhalative (local)	
67-64-1	acetone	1210 mg/m3	DNEL long-term inhalative (systemic)	
		2420 mg/m3	DNEL acute inhalative (local)	
		186 mg/kg	DNEL long-term dermal (systemic)	
71-36-3	butan-1-ol	3,125 mg/kg bw/day	DNEL long-term oral (repeated)	
		55 mg/m3	DNEL long-term inhalative (local)	
		310 mg/m3	DNEL long-term inhalative (local)	
7429-90-5	aluminium powder (stabilised)	3,72 mg/m3	DNEL long-term inhalative (local)	
7440-66-6	zinc powder - zinc dust (stabilized)	5 mg/m3	DNEL long-term inhalative (systemic)	
		83 mg/kg	DNEL long-term dermal (systemic)	



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Zinc-Spray**PNEC**

CAS No	Substance name	Value	Code	Remark
123-86-4	n-butyl acetate	0,18 mg/l	PNEC aquatic, freshwater	
		0,981 mg/kg	PNEC sediment, freshwater	
		0,018 mg/l	PNEC aquatic, marine water	
1330-20-7	xylene	0,327 mg/l	PNEC aquatic, marine water	
		12,46 mg/kg	PNEC sediment, freshwater	
		0,327 mg/l	PNEC aquatic, freshwater	
		2,31 mg/kg	PNEC sediment, freshwater	
		12,46 mg/kg	PNEC sediment, marine water	
141-78-6	ethyl-acetate	0,024 mg/l	PNEC aquatic, marine water	
		0,34 mg/kg	PNEC sediment, freshwater	
		0,115 mg/kg	PNEC sediment, marine water	
		0,24 mg/l	PNEC aquatic, freshwater	
67-64-1	acetone	3,04 mg/kg	PNEC sediment, marine water	
		1,06 mg/l	PNEC aquatic, marine water	
		30,4 mg/kg	PNEC sediment, freshwater	
		10,6 mg/l	PNEC aquatic, freshwater	
71-36-3	butan-1-ol	0,0082 mg/l	PNEC aquatic, marine water	
		0,082 mg/l	PNEC aquatic, freshwater	
		0,178 mg/kg	PNEC sediment, freshwater	
		0,0178 mg/kg	PNEC sediment, marine water	
7440-66-6	zinc powder - zinc dust (stabilized)	56,5 mg/kg	PNEC sediment, marine water	
		0,0206 mg/l	PNEC aquatic, freshwater	
		117,8 mg/kg	PNEC sediment, freshwater	
		0,0061 mg/l	PNEC aquatic, marine water	

Additional advice

The statutory local and national regulations have to be observed.

8.2. Exposure controls**Respiratory protection**

If ventilation insufficient, wear respiratory protection.

Short-term: filter apparatus, filter AX, otherwise environment-independent breathing apparatus.

Hand protection

In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

Chemical protective gloves must be chosen carefully in view of their design and depending on the dependence on the concentration and amounts of dangerous goods used in the specific working tasks.

Glove material specification [make/type, thickness, permeation time/life, wetting resistance]: butyl rubber, 0,7mm; 480min

Eye protection

tightly fitting goggles

Other protection measures

protective clothing



Appropriate engineering controls
Sufficient ventilation and exhaustion.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

aerosol

Colour

silver-grey

Odour

solvent-like

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	not determined				
boiling point	-24 °C				
melting point	not determined				
Flash point	not applicable				Aerosol
Vapourisation rate	not determined				
Flammable (solid)	not applicable				
Flammability (gas)	not determined				
Ignition temperature	> 200 °C				estimate
Self ignition temperature	not determined				
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	not determined				
Relative density	not determined				
Vapour density	not determined				
Solubility in water					No or low immiscibility
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity dynamic	not determined				
Viscosity kinematic	not determined				

**Oxidising properties**

No information available.

Explosive properties

The product is considered non-explosive ; nevertheless explosive vapour/air mixtures can be generated .

9.2. Other information

No information available.

! SECTION 10: Stability and reactivity**10.1. Reactivity**

No information available.

10.2. Chemical stability

No information available.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

Keep away from heat.

Formation of explosive gas/air mixtures.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.

Thermal decomposition

Remark No decomposition if used as directed.

! SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity/Irritation/Sensitization**

	Value/Validation	Species	Method	Remark
LD50 acute oral	> 5000 mg/kg			ATE
LD50 acute dermal	> 5000 mg/kg			ATE
LC50 acute inhalation	> 5 mg/l ()		dust/mist	ATE
Skin irritation	irritant			
Eye irritation	irritant			
Skin sensitization	non-sensitizing			

Subacute Toxicity - Carcinogenicity

**Zinc-Spray**

Value	Species	Method	Validation
Mutagenicity			No experimental information on genotoxicity in vitro available.
Reproduction-Toxicity			No indications of toxic effects were observed in reproduction studies in animals.
Carcinogenicity			No indications of carcinogenic effects are available from long-term trials.
Experiences made from practice Often and long skin contact may cause degreasing and desiccation of the skin which may cause skin irritation. May irritate the mucosae. Irritates eyes and skin. Inhalation causes narcotic effect/intoxication.			
! Additional information The product is to be handled with the caution usual with chemicals. Other hazardous properties may not be excluded. The product has not been tested. The information is derived from the properties of the individual components.			

SECTION 12: Ecological information**12.1. Toxicity**

No information available.

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

The product has not been tested. Because of the product's consistency and low solubility in water bioavailability is not likely.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects**General regulation**

Toxic to aquatic life with long lasting effects.

Do not allow uncontrolled leakage of product into the environment.

Product is not allowed to be discharged into aquatic environment.

The ecotoxic effect of the product has not been tested. The information on this is given on the basis of details in the literature.

! SECTION 13: Disposal considerations**13.1. Waste treatment methods****Waste code No.**

08 01 11*

Name of waste

waste paint and varnish containing organic solvents or other hazardous substances

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 2008/98/EC on hazardous waste.

Recommendations for the product

Remove in accordance with local official regulations.

Dispose of as hazardous waste.

**Zinc-Spray****Recommendations for packaging**

Dispose of according to the local waste regulations.

! General information

For proper waste disposal a complete emptying of the tin is necessary.

Assignment to a waste code number / waste identification according to the EWC is to be carried out on a sector or process-specific basis.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	1950	1950	1950
14.2. UN proper shipping name	AEROSOLS	AEROSOLS (ZINC POWDER)	Aerosols, flammable
14.3. Transport hazard class(es)	2.1	2.1	2.1
14.4. Packing group	-	-	-
14.5. Environmental hazards	Yes	Yes	Yes

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
not applicable

Land and inland navigation transport ADR/RID

Hazard label(s) 2.1

tunnel restriction code D

Classification code 5F

transport in "limited quantities" according to 3.4 ADR is possible

Marine transport IMDG

MARINE POLLUTANT

Transport as limited quantities according to 3.4 IMDG Code is possible.

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

VOC content 76,8 %

VOC value 660 g/L

15.2. Chemical Safety Assessment

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

! SECTION 16: Other information**! Recommended uses and restrictions**

National and local regulations concerning chemicals shall be observed.

For industrial use only.

Further information

Each user is responsible for the implementation of the national special regulations.

Zinc-Spray

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Please observe the following disclaimer! --- Our safety data sheets have been compiled according to effective EU-directives, WITHOUT taking into account the special national directives concerning the handling of hazardous substances.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 8.5

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H261	In contact with water releases flammable gases.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312,	-?-
H332	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
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 (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.