

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

1.1. Product identifier

Name of product RIEGLER Zinc spray / 400 ml
Code-Nr. 3220/400 / ID-Nr. 114576

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

Manufacturer/distributor RIEGLER & Co. KG
Schützenstr. 27, D-72574 Bad Urach
Phone : +49 (0) 7125/9497-0, Fax : +49 (0) 7125/9497-97
E-Mail : zedok@riegler.de
Internet : www.riegler.de

Advice

Abteilung eDocumentation
Phone : +49 (0) 7125/9497-0
Fax : +49 (0) 7125/9497-97
E-mail (competent person):
zedok@riegler.de

1.4. Emergency telephone number

Emergency advice Giftnotrufzentrale Bonn
Phone : +49(0)228-19 240

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	
STOT SE 3	H336	
Aquatic Chronic 2	H411	

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.

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.
H336 May cause drowsiness or dizziness.
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.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/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 or doctor/physician 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 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**Description**

Zinc spray based on synthetic resin binder, solvent and pigments.

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

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 < 3	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	< 10	Flam. Liq. 2, H225 / Acute Tox. 4, H332 / STOT RE 2, H373 (hearing organs) / Asp. Tox. 1, H304
7440-66-6	231-175-3	zinc powder - zinc dust (stabilized)	2,5 < 10	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
1330-20-7	215-535-7	xylene	5 < 10	Flam. Liq. 3, H226 / Acute Tox. 4, H332 / Acute Tox. 4, H312 / Skin Irrit. 2, H315
64742-48-9	265-150-3	Naphtha (petroleum), hydrotreated heavy	1 < 10	Flam. Liq. 3, H226 / Asp. Tox. 1, H304 / STOT SE 3, H336 / , EUH066
7429-90-5	231-072-3	aluminium powder (stabilised)	< 10	

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.

Refer to 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

Dry powder

Carbon dioxide

Dry sand

Unsuitable extinguishing media

water

5.2. Special hazards arising from the substance or mixture

Danger of bursting

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Use breathing apparatus with independent air supply.

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

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 the drains or bodies of water..

6.3. Methods and material for containment and cleaning up

Take up with absorbent material.

After taking up the material dispose according to regulation.

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

Ventilate closed rooms at ground level.

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.

The product is combustible.

Vapours can form an explosive mixture with air.
 Avoid effect of heat.

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.

Advice on storage compatibility

Do not store with combustible materials.

Further information on storage conditions

Protect from heat and direct solar radiation.

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

Store container at cool and aired place.

Keep in a cool place, heat causes increase in pressure and risk of bursting.

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	
7429-90-5	Aluminium metal: inhalable dust	8 hours	10		EH40/2005
7429-90-5	Aluminium metal: respirable dust	8 hours	4		EH40/2005
71-36-3	butan-1-ol	8 hours			EH40/2005
		Short-term	154	50	
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	

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

CAS No	Name	Code	[mg/m ³]	[ppm]	Remark
100-41-4	ethylbenzene	8 hours	442	100	skin
		Short-term	884	200	
115-10-6	dimethylether	8 hours	1920	1000	
1330-20-7	xylene, mixed isomers, pure	8 hours	221	50	skin
		Short-term	442	100	
67-64-1	acetone	8 hours	1210	500	

Additional advice

The statutory local and national regulations have to be observed.

8.2. Exposure controls

Respiratory protection

If ventilation insufficient, wear respiratory protection.

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

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

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 / Freezing point	not determined				
Flash point	> 55 °C				
Vapourisation rate	not determined				
Flammable (solid)	not determined				
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	0,81 g/cm3				

	Value	Temperature	at	Method	Remark
Vapour density	not determined				
Solubility in water					immiscible
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P OW)	not determined				
Decomposition temperature	not determined				
Viscosity	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

Vapours are heavier than air.

SECTION 10: Stability and reactivity
10.1. Reactivity

no

10.2. Chemical stability

No information available.

10.3. Possibility of hazardous reactions

no

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
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	> 2000 mg/kg	rat		Zinc

	Value/Validation	Species	Method	Remark
LD50 acute dermal	1100 mg/kg		Conversion value for acute toxicity	Xylene
LC50 acute inhalation	5,41 mg/l (4 h)	rat		Zinc
Skin irritation	non-irritant			
Eye irritation	irritant - risk of strong eye injuries			

Experiences made from practice

Often and long skin contact may cause degreasing and desiccation of the skin which may cause skin irritation. Product may cause irreversible eye injuries. 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.

SECTION 12: Ecological information
12.1. Toxicity

No information available.

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

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

Do not allow uncontrolled leakage of product into the environment. Product is not allowed to be discharged into aquatic environment.

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

15 01 10*

16 05 04*

Name of waste

packaging containing residues of or contaminated by hazardous substances

gases in pressure containers (including halons) containing 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.

There are no harmonised regulations on the disposal of chemicals in the member states of the EU. In Germany the Recycling and Waste Management Act (KrWG) stipulates recycling as a requirement.

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.

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 82,2 %

VOC value 669,5 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.

Further information

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

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.

- EUH066 Repeated exposure may cause skin dryness or cracking.
- H220 Extremely flammable gas.
- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- 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.