

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2230 Zinc paint 400 ml

Print date: 21.07.2015

Product code: 91308

Page 1 of 10

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

1.1. Product identifier

2230 Zinc paint 400 ml

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

1.3. Details of the supplier of the safety data sheet

Company name:	KERONA GmbH	
Street:	Zeilbaumweg 15	
Place:	D-74613 Öhringen	
Telephone:	+49 7941-9205 4080	Telefax: +49 7941-9205 4090
e-mail:	mail@kerona.de	
Contact person:	Dr. Hans Götz	Telephone: +49 170-8548 710
e-mail:	hans.goetz@kerona.de	
Internet:	www.kerona.de	

1.4. Emergency telephone number:

+49 761-19 240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

Indications of danger: F+ - Extremely flammable, Xn - Harmful, N - Dangerous for the environment
R phrases:
Extremely flammable.
Harmful by inhalation.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:
Aerosol: Aerosol 1
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Specific target organ toxicity - single exposure: STOT SE 3
Hazardous to the aquatic environment: Aquatic Acute 1
Hazardous to the aquatic environment: Aquatic Chronic 1
Hazard Statements:
Extremely flammable aerosol.
Pressurised container: May burst if heated.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazardous components which must be listed on the label

ethyl acetate
1-methoxy-2-propanol; monopropylene glycol methyl ether
solvent naphta, light aromatic, benzene content <0,1%

Signal word: Danger
Pictograms: GHS02-GHS07-GHS09

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2230 Zinc paint 400 ml

Print date: 21.07.2015

Product code: 91308

Page 2 of 10



Hazard statements

- | | |
|------|---|
| H222 | Extremely flammable aerosol. |
| H229 | Pressurised container: May burst if heated. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |
| H410 | Very 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. |
| P251 | Do not pierce or burn, even after use. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P273 | Avoid release to the environment. |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. |

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2230 Zinc paint 400 ml

Print date: 21.07.2015

Product code: 91308

Page 3 of 10

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
231-175-3	zinc powder - zinc dust (stabilized)	30-35 %
7440-66-6	N - Dangerous for the environment R50-53	
030-001-01-9	Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 1 (M-Factor = 1); H400 H410	
215-535-7	xylene	5-10%
1330-20-7	Xn - Harmful, Xi - Irritant R10-20/21-38	
601-022-00-9	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2; H226 H332 H312 H315	
205-500-4	ethyl acetate	5-10 %
141-78-6	F - Highly flammable, Xi - Irritant R11-36-66-67	
607-022-00-5	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066	
203-539-1	1-methoxy-2-propanol; monopropylene glycol methyl ether	5-10 %
107-98-2	R10-67	
603-064-00-3	Flam. Liq. 3, STOT SE 3; H226 H336	
215-222-5	zinc oxide	1-5 %
1314-13-2	N - Dangerous for the environment R50-53	
030-013-00-7	Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 1 (M-Factor = 1); H400 H410	
265-199-0	solvent naphta, light aromatic, benzene content <0,1%	1-5 %
64742-95-6	Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R10-37-51-53-65-66-67	
	Flam. Liq. 3, STOT SE 3, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H226 H335 H336 H304 H411	
202-849-4	ethylbenzene	1-5 %
100-41-4	F - Highly flammable, Xn - Harmful R11-20-48/20-65	
601-023-00-4	Flam. Liq. 2, Acute Tox. 4, STOT RE 2, Asp. Tox. 1; H225 H332 H373 H304	

Full text of R-, H- and EUH-phrases: see section 16.

Further Information

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Never give anything by mouth to an unconscious person or a person with cramps.

After inhalation

Provide fresh air. Put victim at rest, cover with a blanket and keep warm. If unconscious place in recovery position and seek medical advice.

After contact with skin

Wash with plenty of water. Change contaminated clothing.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2230 Zinc paint 400 ml

Print date: 21.07.2015

Product code: 91308

Page 4 of 10

After ingestion

Rinse mouth immediately and drink plenty of water. Induce vomiting when the affected person is not unconscious.

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

Vapours may cause drowsiness and dizziness. Frequently or prolonged contact with skin may cause dermal irritation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂). Foam. Extinguishing powder.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Vapours may form explosive mixtures with air. Combustible.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protective suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Danger of explosion Retain contaminated washing water and dispose it.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

See protective measures under point 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Avoid: Skin contact, Eye contact.

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Vapours may form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Provide adequate ventilation as well as local exhaustion at critical locations. Keep container tightly closed in a cool place.

Advice on storage compatibility

Do not store together with: Acid. alkali. Oxidizing agents.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2230 Zinc paint 400 ml

Print date: 21.07.2015

Product code: 91308

Page 5 of 10

Further information on storage conditions

Heating causes rise in pressure with risk of bursting.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
107-98-2	1-Methoxypropan-2-ol	100	375		TWA (8 h)	WEL
		150	560		STEL (15 min)	WEL
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL
141-78-6	Ethyl acetate	200	-		TWA (8 h)	WEL
		400	-		STEL (15 min)	WEL
100-41-4	Ethylbenzene	100	441		TWA (8 h)	WEL
		125	552		STEL (15 min)	WEL
1330-20-7	Xylene: mixed isomers	50	220		TWA (8 h)	WEL
		100	441		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
1330-20-7	Xylene, o-, m-, p- or mixed isomers	methyl hippuric acid	650 mmol/mol	urine	Post shift

Additional advice on limit values

Source: TRGS 900

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. After work, wash hands and face. When using do not eat or drink.

Eye/face protection

Suitable eye protection: goggles

Hand protection

 Tested protective gloves must be worn.
 Suitable material: NBR (Nitrile rubber). Butyl caoutchouc (butyl rubber)
 Thickness of the glove material > 0,4mm
 DIN EN 374

Skin protection

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500. Avoid contact with skin, eyes and clothes.

Respiratory protection

 Filtering device (full mask or mouthpiece) with filter: Filter types:A, B, E, K. Class 1: Maximum permitted contaminant concentration in inhaled air = 1000 mL/m³ (0.1 % by vol.); class 2: maximum permitted contaminant concentration in inhaled air = 5000 mL/m³ (0.5 % by vol.); class 3: maximum

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2230 Zinc paint 400 ml

Print date: 21.07.2015

Product code: 91308

Page 6 of 10

permitted contaminant concentration in inhaled air = 10000 mL/m³ (1.0 % by vol.)

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Aerosol
Colour:	silver grey
Odour:	characteristic

Test method

Changes in the physical state

Initial boiling point and boiling range:	-42 °C	
Flash point:	-25 °C	DIN EN ISO 1523
Lower explosion limits:	1 vol. %	
Upper explosion limits:	13,1 vol. %	
Ignition temperature:	270 °C	DIN 51794
Vapour pressure: (at 20 °C)	3,2 hPa	DIN EN 12
Density:	1,051 g/cm ³	
Flow time:	32	3 DIN 53211
Solvent content:	VOCV (CH): 58,17 % VOC (EU): 611,4 g/l	

9.2. Other information

Solid content:	~40 %
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SECTION 10: Stability and reactivity

10.1. Reactivity

Special hazards arising from the substance or mixture. There are no data available on the mixture itself.

10.2. Chemical stability

Special hazards arising from the substance or mixture. There are no data available on the mixture itself.

10.3. Possibility of hazardous reactions

Substances that form flammable gases in contact with water (liquid)

10.4. Conditions to avoid

Pressurised container: May burst if heated. This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment).

10.5. Incompatible materials

Reacts with : Alkalis (alkalis). Oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition can lead to the escape of irritating gases and vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Acute toxicity, inhalant.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2230 Zinc paint 400 ml

Print date: 21.07.2015

Product code: 91308

Page 7 of 10

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
1330-20-7	xylene				
	dermal	ATE	1100 mg/kg		
	inhalative vapour	ATE	11 mg/l		
	inhalative aerosol	ATE	1,5 mg/l		
107-98-2	1-methoxy-2-propanol; monopropylene glycol methyl ether				
	oral	LD50	> 5000 mg/kg	Rat	IUCLID
	dermal	LD50	11000 mg/kg	Rabbit	
1314-13-2	zinc oxide				
	oral	LD50	> 5000 mg/kg	Rat	IUCLID
100-41-4	ethylbenzene				
	oral	LD50	3500 mg/kg	Rat	GESTIS
	dermal	LD50	15400 mg/kg	Rabbit	GESTIS
	inhalative (4 h) vapour	LC50	17,2 mg/l	Rat	
	inhalative aerosol	ATE	1,5 mg/l		

STOT-single exposure

Toxicological data are not available.

Severe effects after repeated or prolonged exposure

Can cause frostbite. Has degreasing effect on the skin.

Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 12: Ecological information

12.1. Toxicity

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

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
107-98-2	1-methoxy-2-propanol; monopropylene glycol methyl ether					
	Acute fish toxicity	LC50 mg/l	4600 - 10000	96 h	Leuciscus idus	IUCLID
	Acute algae toxicity	ErC50	> 1000 mg/l	72 h	Selenastrum capricornutum	
	Acute crustacea toxicity	EC50	> 500 mg/l	48 h	Daphnia magna	IUCLID
100-41-4	ethylbenzene					
	Acute algae toxicity	ErC50	3,6 mg/l	96 h		GESTIS

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
107-98-2	1-methoxy-2-propanol; monopropylene glycol methyl ether	-0,437
100-41-4	ethylbenzene	3,15

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2230 Zinc paint 400 ml

Print date: 21.07.2015

Product code: 91308

Page 8 of 10

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

Further information

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing dangerous substances
Classified as hazardous waste.

Waste disposal number of used product

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing dangerous substances
Classified as hazardous waste.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
Hazard label: 2.1
Classification code: 5F
Special Provisions: 190 327 344 625
Limited quantity: 1 L
Transport category: 2
Tunnel restriction code: D

Other applicable information (land transport)

E0

Inland waterways transport (ADN)

14.1. UN number: UN1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
Hazard label: 2.1
Classification code: 5F
Special Provisions: 190 327 344 625
Limited quantity: 1 L

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2230 Zinc paint 400 ml

Print date: 21.07.2015

Product code: 91308

Page 9 of 10

Other applicable information (inland waterways transport)

E0

Marine transport (IMDG)

14.1. UN number:	UN1950
14.2. UN proper shipping name:	AEROSOLS
14.3. Transport hazard class(es):	2
14.4. Packing group:	-
Hazard label:	2, see SP63
Special Provisions:	63, 190, 277, 327, 344, 959
Limited quantity:	See SP277
EmS:	F-D, S-U

Other applicable information (marine transport)

E0

Air transport (ICAO)

14.1. UN number:	UN1950
14.2. UN proper shipping name:	AEROSOLS, flammable
14.3. Transport hazard class(es):	2.1
Hazard label:	2.1
Special Provisions:	A145 A167 A802
Limited quantity Passenger:	30 kg G
IATA-packing instructions - Passenger:	203
IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	203
IATA-max. quantity - Cargo:	150 kg

Other applicable information (air transport)

E0

Passenger-LQ: Y203

SECTION 15: Regulatory information

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

EU regulatory information

2004/42/EC (VOC):	VOC EU 611,4 g/l VOC CH 58,17%
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National regulatory information

Employment restrictions:	Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.
Water contaminating class (D):	2 - water contaminating

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Relevant R-phrases (Number and full text)

10	Flammable.
11	Highly flammable.
20	Harmful by inhalation.
20/21	Harmful by inhalation and in contact with skin.
36	Irritating to eyes.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2230 Zinc paint 400 ml

Print date: 21.07.2015

Product code: 91308

Page 10 of 10

37	Irritating to respiratory system.
38	Irritating to skin.
48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
50	Very toxic to aquatic organisms.
51	Toxic to aquatic organisms.
53	May cause long-term adverse effects in the aquatic environment.
65	Harmful: may cause lung damage if swallowed.
66	Repeated exposure may cause skin dryness or cracking.
67	Vapours may cause drowsiness and dizziness.

Relevant H- and EUH-phrases (Number and full text)

H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
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.
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.
EUH066	Repeated exposure may cause skin dryness or cracking.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)