



Zinkspray hell

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

1.1 - Product identifier

Trade name/designation Zinkspray hell
Chemical name
Product-type Mixture
UFI: HQ30-X0FD-R00Q-81A0

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

Relevant identified uses

- Polishing agent
- Consumer uses: Private households (= general public = consumers)

1.3 - Details of the supplier of the safety data sheet

ECS Cleaning Solutions GmbH
Wolfener Str. 32-34
D-12681 Berlin Germany
Telephone : +49 (0)30 / 36 46 40 36
gunnar.kleinmann@ecsag.com

Distributor

ECS AG
Talstrasse 35-37
8808 Pfaffikon
Switzerland
gunnar.kleinmann@ecsag.com
+41 (0)44 / 787 53 53

1.4 - Emergency telephone number

Verwenden Sie Ihrenationale oder lokale Notrufnummer (Deutschland)
Tel. No.: +49(0)30-19240.
Schweizerisches Toxikologisches Informationszentrum (Schweiz)/ Centro svizzero di informazione tossicologica (Svizzera)/ Centre Suisse d'Information Toxicologique (Suisse)
Tel. No.: +41 44 251 51 51
Tox Info Suisse Notrufnummer: 145 (24 Stunden)/ Numero di emergenza Tox Info Suisse: 145 (24 ore)/ Tox Info Suisse Numéro d'urgence: 145 (24h/24)
Giftnotrufzentrale (Österreich)
Tel. No.: +43 1 406 4343

SECTION 2: Hazards identification

2.1 - Classification of the substance or mixture

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

Skin Irrit. 2	Irritation, Category 2
Eye Irrit. 2	Eye irritation - Category 2
STOT SE 3	STOT-single exposure - Category 3 (H336)
Asp. Tox. 1	Aspiration hazard - Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Aquatic Chronic 2
Aerosol 1	Aerosol - Category 1
STOT SE 3	STOT-single exposure - Category 3 (H335)

Zinkspray hell

STOT RE 2	STOT-repeated exposure - Category 2
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2.2 - Label elements

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

Contains: acetone, propan-2-one, propanone | Hydrocarbons, C9, aromatics | Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes | reaction mass of ethylbenzene and xylene

Signal word : Danger

Hazard pictograms



Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs (central nervous system) through prolonged or repeated exposure (inhalative).
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.
P273	Avoid release to the environment.
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.
P402+P404	Store in a dry place. Store in a closed container.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of container/contents to an appropriate recycling or disposal facility in accordance with national regulation.

EUH-phrases : None

2.3 - Other hazards

PBT-substance. - This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

vPvB-substance. - This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

SECTION 3: Composition / information on ingredients



Zinkspray hell

3.1 - Substances

Not applicable

3.2 - Mixtures

Chemical name	No.	%	Class(es)	Specific concentration limit
butane INCI: BUTANE	CAS No. : 106-97-8 Index No. : 601-004-00-0 EC No. : 203-448-7	>= 20 - <= 30	Flam. Gas 1 - H220 Press. Gas	Not applicable
acetone, propan-2-one, propanone	CAS No. : 67-64-1 Index No. : 606-001-00-8 EC No. : 200-662-2	>= 15 - <= 25	Eye Irrit. 2 - H319 Flam. Liq. 2 - H225 STOT SE 3 - H336	Not applicable
reaction mass of ethylbenzene and xylene	CAS No. : Index No. : EC No. : 905-588-0	>= 10 - <= 20	Acute Tox. 4 Dermal - H312 Acute Tox. 4 Inhalation - H332 Aquatic Chronic 3 - H412 Asp. Tox. 1 - H304 Carc. 1B - H350 Eye Irrit. 2 - H319 Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT RE 2 - H373 STOT SE 3 - H335	Not applicable
isobutane INCI: ISOBUTANE	CAS No. : 75-28-5 Index No. : 601-004-00-0 EC No. : 200-857-2	>= 5 - <= 15	Flam. Gas 1 - H220 Press. Gas	Not applicable
dimethyl ether	CAS No. : 115-10-6 Index No. : 603-019-00-8 EC No. : 204-065-8	>= 10 - <= 15	Flam. Gas 1 - H220 Press. Gas	Not applicable
Hydrocarbons, C9, aromatics	CAS No. : 128601-23-0 Index No. : EC No. : 918-668-5	>= 5 - <= 10	Aquatic Chronic 2 - H411 Asp. Tox. 1 - H304 Flam. Liq. 3 - H226 STOT SE 3 - H335 STOT SE 3 - H336	Not applicable
Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes	CAS No. : Index No. : 649-328-00-1 EC No. : 927-510-4	>= 5 - <= 10	Aquatic Chronic 2 - H411 Asp. Tox. 1 - H304 Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336	Not applicable
propane INCI: PROPANE	CAS No. : 74-98-6 Index No. : 601-003-00-5 EC No. : 200-827-9	>= 2.5 - <= 5	Flam. Gas 1 - H220 Press. Gas	Not applicable
zinc powder - zinc dust (stabilised) INCI: ZINC	CAS No. : 7440-66-6 Index No. : 030-001-01-9 EC No. : 231-175-3	>= 1 - <= 5	Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Not applicable
aluminium powder (stabilised) INCI: CI 77000	CAS No. : 7429-90-5 Index No. : 013-002-00-1 EC No. : 231-072-3	>= 1 - <= 5	Flam. Sol. 1 - H228 Water-react. 2 - H261	Not applicable
n-hexane	CAS No. : 110-54-3 Index No. : 601-037-00-0 EC No. : 203-777-6	>= 0.1 - <= 1	Aquatic Chronic 2 - H411 Asp. Tox. 1 - H304 Flam. Liq. 2 - H225 Repr. 2 - H361 Skin Irrit. 2 - H315 STOT RE 2 - H373 STOT SE 3 - H336	STOT RE 2 - H373 : 5<=%<=100
N-pentan-2-ylidenhydroxyla mine	CAS No. : 623-40-5 Index No. : EC No. : 484-470-6	>= 0.1 - <= 1	Acute Tox. 4 Oral - H302 Aquatic Chronic 3 - H412 Eye Irrit. 2 - H319 STOT RE 2 - H373	Not applicable

SECTION 4: First aid measures

4.1 - Description of first aid measures

Following inhalation - Put victim at rest, cover with a blanket and keep warm.

Zinkspray hell

- Provide fresh air.
- Remove affected person from the danger area and lay down.
- When in doubt or if symptoms are observed, get medical advice.

Following skin contact

- Remove contaminated, saturated clothing immediately.
- After contact with skin, wash immediately with plenty of water and soap.
- In case of skin irritation, consult a physician.
- Wash contaminated clothing before reuse.

After eye contact

- Rinse immediately carefully and thoroughly with eye-bath or water.
- Remove contact lenses, if present and easy to do. Continue rinsing.
- In case of eye irritation consult an ophthalmologist.

After ingestion

- Rinse mouth thoroughly with water.
- Do NOT induce vomiting.
- Observe risk of aspiration if vomiting occurs.
- When in doubt or if symptoms are observed, get medical advice.
- Never give anything by mouth to an unconscious person or a person with cramps.

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

Symptoms and effects - Following inhalation

- May cause drowsiness or dizziness.
- May cause respiratory irritation.
- If material enters the lungs, signs and symptoms may include coughing, choking, wheezing, labored breathing, chest tightness, shortness of breath and/or fever.

Symptoms and effects - Following skin contact

- Causes skin irritation.

Symptoms and effects - After eye contact

- Causes eye irritation.
- Itching.
- Redness.

Symptoms and effects - After ingestion

- May be fatal if swallowed and enters airways.
- Chemical pneumonia by aspiration.
- Diarrhea
- Nausea
- The following symptoms may occur: Abdominal pain
- The following symptoms may occur: Gastrointestinal complaints
- The following symptoms may occur: Vomiting

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

- Treat symptomatically.
- In case an intoxication is suspected, National Poisons Information Centre should be addressed immediately, number of Emergency telephone see in section 1.4.

SECTION 5: Firefighting measures

5.1 - Extinguishing media



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Suitable extinguishing media

- ABC-powder
- Carbon dioxide (CO₂)
- Foam
- Extinguishing powder

Unsuitable extinguishing media

- Full water jet

5.2 - Special hazards arising from the substance or mixture

Special hazards arising from the substance or mixture

- Heating causes rise in pressure with risk of bursting.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hazardous decomposition products

- No information available.

5.3 - Advice for firefighters

- Co-ordinate fire-fighting measures to the fire surroundings.
- Wear a self-contained breathing apparatus and chemical protective clothing.
- In case of fire and/or explosion do not breathe fumes.
- Remove product from area of fire.
- 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

For non-emergency personnel

- Use personal protection equipment.
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Ventilate affected area.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Avoid contact with skin, eyes and clothes.
- Remove persons to safety.

For emergency responders

- Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2 - Environmental precautions

- In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3 - Methods and material for containment and cleaning up

Methods and material for containment

- No information available.

Methods and material for cleaning up

- Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).
- Wash with plenty of water.
- Use only non-sparking tools.
- Ventilate affected area.
- Take up mechanically, placing in appropriate containers for disposal.

Inappropriate techniques

- No information available.

Zinkspray hell

6.4 - Reference to other sections

- Personal protection equipment: see section 8
- Disposal: see section 13

SECTION 7: Handling and storage

7.1 - Precautions for safe handling

- Recommendation**
- Avoid: Eye contact
 - Avoid: Skin contact
 - Heating causes rise in pressure with risk of bursting.
 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
 - Keep away from sources of ignition - No smoking.
 - Provide adequate ventilation as well as local exhaustion at critical locations.
 - Take precautionary measures against static discharges.
 - Use only antistatically equipped (spark-free) tools.

- Advices on general occupational hygiene**
- Wash hands before breaks and after work.
 - When using do not eat, drink, smoke, sniff.
 - Avoid contact with skin, eyes and clothes.
 - Remove contaminated, saturated clothing immediately.
 - Wash contaminated clothing prior to re-use.

7.2 - Conditions for safe storage, including any incompatibilities

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep away from sources of ignition - No smoking.
- Keep away from: Food and feedingstuffs
- Keep container tightly closed in a cool, well-ventilated place.
- Keep locked up and out of reach of children.
- Keep/Store only in original container.
- Floors should be impervious, resistant to liquids and easy to clean.

7.3 - Specific end use(s)

- Aerosols

SECTION 8: Exposure controls/personal protection

8.1 - Control parameters

acetone, propan-2-one, propanone (67-64-1)	
IOELV TWA mg/m ³ (UE)	1210 mg/m ³
IOELV TWA ppm (UE)	500 ppm
IOELV STEL mg/m ³ (UE)	3620 mg/m ³
IOELV STEL ppm (UE)	1500 ppm
dimethyl ether (115-10-6)	
IOELV TWA mg/m ³ (UE)	1920 mg/m ³
IOELV TWA ppm (UE)	1000 ppm
Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes	
IOELV TWA mg/m ³ (UE)	800 mg/m ³



Zinkspray hell

butane (106-97-8)

IOELV TWA mg/m ³ (UE)	1450 mg/m ³
IOELV TWA ppm (UE)	600 ppm
IOELV STEL mg/m ³ (UE)	1810 mg/m ³
IOELV STEL ppm (UE)	750 ppm

n-hexane (110-54-3)

IOELV TWA mg/m ³ (UE)	72 mg/m ³
IOELV TWA ppm (UE)	20 ppm

DNEL / PNEC

acetone, propan-2-one, propanone (67-64-1)

Type	Value	User	Effect
DNEL long-term oral (repeated)	62 mg/kg bw/day	Consumers	Systemic
DNEL acute inhalative	2420 mg/m ³	Workers	Systemic
DNEL long-term inhalative	1210 mg/m ³	Workers	Systemic
DNEL long-term inhalative	200 mg/m ³	Consumers	Systemic
DNEL long-term dermal	186 mg/kg bw/day	Workers	Systemic
DNEL long-term dermal	62 mg/kg bw/day	Consumers	Systemic
PNEC aquatic, freshwater	10.6 mg/l		
PNEC aquatic, marine water	1.06 mg/l		
PNEC aquatic, intermittent release	21 mg/l		
PNEC sediment, freshwater	30.4 mg/kg		
PNEC sediment, marine water	3.04 mg/kg		
PNEC soil	33.3 mg/kg		
PNEC sewage treatment plant (STP)	100 mg/l		

dimethyl ether (115-10-6)

Type	Value	User	Effect
DNEL long-term inhalative	471 mg/m ³	Consumers	Systemic
DNEL long-term inhalative	1894 mg/m ³	Workers	Systemic
PNEC aquatic, freshwater	0.155 mg/l		
PNEC aquatic, marine water	0.016 mg/l		
PNEC aquatic, intermittent release	1.549 mg/l		
PNEC sediment, freshwater	0.681 mg/kg		
PNEC sediment, marine water	0.069 mg/kg		
PNEC soil	0.045 mg/kg		
PNEC sewage treatment plant (STP)	160 mg/l		

propane (74-98-6)

Type	Value	User	Effect
DNEL short-term oral (acute)	0.464 mg/kg	Consumers	Systemic
DNEL long-term inhalative	2.21 mg/m ³	Workers	Systemic
DNEL long-term inhalative	0.265 mg/m ³	Consumers	Systemic

zinc powder - zinc dust (stabilised) (7440-66-6)

Type	Value	User	Effect
PNEC aquatic, freshwater	1.4E-05 mg/l		
PNEC aquatic, marine water	7E-06 mg/l		
PNEC sediment, freshwater	146.9 mg/kg		
PNEC sediment, marine water	162.2 mg/kg		
PNEC soil	83.1 mg/kg		
PNEC sewage treatment plant (STP)	0.0001 mg/l		

aluminium powder (stabilised) (7429-90-5)

Type	Value	User	Effect
DNEL long-term oral (repeated)	7.9 mg/kg bw/day	Consumers	Systemic
DNEL long-term inhalative	3.72 mg/m ³	Workers	Systemic

Zinkspray hell

DNEL long-term inhalative	3.72 mg/m ³	Workers	Local
Hydrocarbons, C9, aromatics (128601-23-0)			
Type	Value	User	Effect
DNEL long-term oral (repeated)	11 mg/kg bw/day	Consumers	Systemic
DNEL acute inhalative	150 mg/m ³	Workers	Systemic
DNEL long-term inhalative	32 mg/m ³	Consumers	Systemic
DNEL long-term dermal	11 mg/kg bw/day	Consumers	Systemic
DNEL long-term dermal	25 mg/kg bw/day	Workers	Systemic
Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes			
Type	Value	User	Effect
DNEL short-term oral (acute)	1286.4 mg/kg	Workers	Systemic
DNEL short-term oral (acute)	1066.67 mg/kg	Workers	Local
DNEL short-term oral (acute)	1152 mg/kg	Consumers	Systemic
DNEL short-term oral (acute)	640 mg/kg	Consumers	Local
DNEL long-term oral (repeated)	178.57 mg/kg bw/day	Consumers	Local
DNEL long-term oral (repeated)	837.5 mg/kg bw/day	Workers	Local
n-hexane (110-54-3)			
Type	Value	User	Effect
DNEL long-term oral (repeated)	4 mg/kg bw/day	Consumers	Systemic
DNEL long-term inhalative	75 mg/m ³	Workers	Systemic
DNEL long-term inhalative	16 mg/m ³	Consumers	Systemic
DNEL long-term dermal	5.3 mg/kg bw/day	Consumers	Systemic
DNEL long-term dermal	11 mg/kg bw/day	Workers	Systemic

8.2 - Exposure controls

Appropriate engineering controls

- Technical measures and the application of suitable work processes have priority over personal protection equipment.
- Do not breathe gas/fumes/vapour/spray.
- Do not eat, drink or smoke when using this product.
- If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.
- Provide adequate ventilation.
- Provide eye shower and label its location conspicuously
- Take off contaminated clothing and wash it before reuse.
- Wash hands before breaks and after work.
- When using do not eat or drink.
- Suitable eye protection: Eye glasses with side protection

Individual protection measures, such as personal protective equipment

- BS EN ISO 16321-1:2022
- In case of prolonged or frequently repeated skin contact:
- Protective gloves according to EN374
- The product is a preparation of several substances, the resistance of glove materials cannot be predicted and must therefore be checked before use.
- This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is





Zinkspray hell

- Use only respiratory protection equipment with CE-symbol including four digit test number.

- Wear anti-static footwear and clothing

Environmental exposure controls

- No information available.

SECTION 9: Physical and chemical properties

9.1 - Information on basic physical and chemical properties

<u>Physical state</u>	<u>Liquid</u>	<u>Appearance</u>	<u>Aerosol</u>
<u>Colour</u>	silver	<u>Odour</u>	characteristic
Odour threshold		No data available	
pH		No data available	
Melting point		No data available	
Freezing point		No data available	
Boiling point		No data available	
Flash point		No data available	
Evaporation rate		No data available	
flammability		No data available	
Lower explosion limit		No data available	
Upper explosion limit		No data available	
Vapour pressure		No data available	
Vapour density		No data available	
Relative density		No data available	
Density		0.884 kg/l	
Solubility (Water)		No data available	
Solubility (Ethanol)		No data available	
Solubility (Acetone)		No data available	
Solubility (Organic solvents)		No data available	
Log KOC		No data available	
Auto-ignition temperature		No data available	
Decomposition temperature		No data available	
Kinematic viscosity		No data available	
Dynamic viscosity		No data available	

Particle characteristics

Particle size	No data available
Dustiness	No data available
Specific surface area	No data available
Shape	No data available

9.2 - Other information

VOC content	642 g/l 88 %
Minimum ignition energy	No data available



Zinkspray hell

Conductivity	No data available
Refractive index	No data available
Solids content	No data available
Surface tension	No data available
Saturation concentration	No data available

SECTION 10: Stability and reactivity

10.1 - Reactivity

- This material is considered to be non-reactive under normal use conditions.

10.2 - Chemical stability

- The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 - Possibility of hazardous reactions

- Vapours can form explosive mixtures with air.

10.4 - Conditions to avoid

- Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.
- Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

10.5 - Incompatible materials

- Oxidising agent, strong

10.6 - Hazardous decomposition products

- Does not decompose when used for intended uses.
- May form hazardous decomposition products when exposed to high temperatures.

SECTION 11: Toxicological information

11.1 - Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity - Based on available data, the classification criteria are not met.

Toxicity : Mixture

LD50 oral (rat)	No data available
LD50 dermal (rat)	No data available
LD50 dermal (rabbit)	No data available
LC50 inhalation (rat)	No data available
LC50 inhalation dusts and mists (rat)	No data available
LC50 inhalation vapours (rat)	No data available

- Based on available data, the classification criteria are not met.

Toxicity : Substances

acetone, propan-2-one, propanone (67-64-1)	
LD50 oral (rat)	5800 mg/kg
LD50 dermal (rabbit)	> 7426 mg/kg
LC50 inhalation vapours (rat)	76 mg/l
isobutane (75-28-5)	



Zinkspray hell

LC50 inhalation vapours (rat)	> 50 mg/l
dimethyl ether (115-10-6)	
LC50 inhalation vapours (rat)	308 mg/l
propane (74-98-6)	
LC50 inhalation (rat)	> 800000 ppmV
LC50 inhalation vapours (rat)	> 20 mg/l
zinc powder - zinc dust (stabilised) (7440-66-6)	
LD50 oral (rat)	2000 mg/kg
LC50 inhalation dusts and mists (rat)	5.41 mg/l
aluminium powder (stabilised) (7429-90-5)	
LD50 oral (rat)	> 2000 mg/kg
LC50 inhalation dusts and mists (rat)	> 888 mg/l
Hydrocarbons, C9, aromatics (128601-23-0)	
LD50 oral (rat)	> 3492 mg/kg
LD50 dermal (rabbit)	> 3160 mg/kg
Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes ()	
LD50 oral (rat)	> 5840 mg/kg
LD50 dermal (rat)	> 2920 mg/kg
LC50 inhalation vapours (rat)	> 23.3 mg/l
butane (106-97-8)	
LC50 inhalation (rat)	> 800000 ppmV
LC50 inhalation vapours (rat)	658 mg/l

<u>Skin corrosion/irritation</u>	- Irritation, Category 2 - Causes skin irritation.
<u>Serious eye damage/eye irritation</u>	- Eye irritation - Category 2 - Causes serious eye irritation.
<u>Respiratory or skin sensitisation</u>	- Based on available data, the classification criteria are not met.
<u>Germ cell mutagenicity</u>	- Based on available data, the classification criteria are not met.
<u>Carcinogenicity</u>	- Based on available data, the classification criteria are not met.
<u>Reproductive toxicity</u>	- Based on available data, the classification criteria are not met.
<u>STOT-single exposure</u>	- STOT-single exposure - Category 3 (H336) - May cause drowsiness or dizziness. - STOT-single exposure - Category 3 (H335) - May cause respiratory irritation.
<u>STOT-repeated exposure</u>	- STOT-repeated exposure - Category 2 - May cause damage to organs (central nervous system) through prolonged or repeated exposure (inhalative).
<u>Aspiration hazard</u>	- Aspiration hazard - Category 1 - May be fatal if swallowed and enters airways.

11.2 - Information on other hazards

- This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 12: Ecological information

12.1 - Toxicity

Toxicity : Mixture

Zinkspray hell

EC50 48 hr crustacea	No data available
LC50 96 hr fish	No data available
ErC50 algae	No data available
ErC50 other aquatic plants	No data available
NOEC chronic fish	No data available
NOEC chronic crustacea	No data available
NOEC chronic algae	No data available
NOEC chronic other aquatic plants	No data available

Toxicity : Substances

acetone, propan-2-one, propanone (67-64-1)	
EC50 48 hr crustacea	8800 mg/l
LC50 96 hr fish	5540 mg/l < V < 11000 mg/l
ErC50 other aquatic plants	2100 mg/l
NOEC chronic crustacea	2212 mg/l
NOEC chronic algae	430 mg/l < V < 530 mg/l
dimethyl ether (115-10-6)	
EC50 48 hr crustacea	756 mg/l
LC50 96 hr fish	1783 mg/l
ErC50 algae	155 mg/l
zinc powder - zinc dust (stabilised) (7440-66-6)	
EC50 48 hr crustacea	> 0.413 mg/l
LC50 96 hr fish	> 0.169 mg/l
Hydrocarbons, C9, aromatics (128601-23-0)	
EC50 48 hr crustacea	3.2 mg/l
LC50 96 hr fish	9.2 mg/l
ErC50 algae	7.9 mg/l
Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes ()	
LC50 96 hr fish	18.27 mg/l
ErC50 algae	13.56 mg/l
ErC50 other aquatic plants	31.9 mg/l
NOEC chronic crustacea	2212 mg/l
NOEC chronic algae	3.034 mg/l

12.2 - Persistence and degradability

Biochemical oxygen demand (BOD)	No data available
Chemical oxygen demand (COD)	No data available
% of biodegradation in 28 days	No data available

- No information available.

12.3 - Bioaccumulative potential

Mixture

Bioconcentration factor (BCF)	No data available
Log KOC	No data available

- No indication of bioaccumulation potential.

Substances



Zinkspray hell

acetone, propan-2-one, propanone (67-64-1)	
Log KOC	-0.24
dimethyl ether (115-10-6)	
Log KOC	0.1
propane (74-98-6)	
Log KOC	2.36
Hydrocarbons, C9, aromatics (128601-23-0)	
Bioconcentration factor (BCF)	≥ 39.8
Log KOC	≥ 2.92
butane (106-97-8)	
Log KOC	$1.09 < V < 2.8$

12.4 - Mobility in soil

- No information available.

12.5 - Results of PBT and vPvB assessment

- This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

- This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6 - Endocrine disrupting properties

- This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7 - Other adverse effects

- Avoid release to the environment.

SECTION 13: Disposal considerations

13.1 - Waste treatment methods

Waste treatment methods

- Dispose of waste according to applicable legislation.
- packaging containing residues of or contaminated by dangerous substances
- This material and its container must be disposed of as hazardous waste.
- Delivery to an approved waste disposal company.
- Handle contaminated packages in the same way as the substance itself.

Sewage disposal

- No information available.

Special precautions for waste treatment

- No information available.

Community or national or regional provisions

- No information available.

SECTION 14: Transport information

14.1 - UN number or ID number

<u>UN number (ADR)</u>	:	UN1950
<u>UN number (RID)</u>	:	UN1950
<u>UN number (ADN)</u>	:	UN1950
<u>UN number (IMDG)</u>	:	UN1950

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UN number (IATA) : UN1950

14.2 - UN proper shipping name

UN proper shipping name (ADR) : AEROSOLS

UN proper shipping name (RID) : AEROSOLS

UN proper shipping name (ADN) : AEROSOLS

UN proper shipping name (IMDG) : AEROSOLS (zinc powder - zinc dust (stabilized))

UN proper shipping name (IATA) : AEROSOLS, FLAMMABLE

14.3 - Transport hazard class(es)

ADR Transport hazard class(es) : 2

ADR Classification code: 5F

Pictograms



Transport hazard class(es) (RID) : 2

Pictograms



Transport hazard class(es) (ADN) : 2

Pictograms



Transport hazard class(es) (IMDG) : 2

Pictograms



Transport hazard class(es) (IATA) : 2

Pictograms



14.4 - Packing group



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Packing group :
Packing group (RID) :
Packing group (ADN) :
Packing group (IMDG) :
Packing group (IATA) :

14.5 - Environmental hazards

Environmental hazards : Yes.
Marine pollutant : Hazardous to the aquatic environment - Aquatic Chronic 2
Additional information - Product contains environmentally hazardous substances: zinc powder -zinc dust

14.6 - Special precautions for user

ADR

ADR Classification code : 5F
ADR Special provisions : 190+327+344+625
ADR Limited quantity (LQ) : 1L
ADR Excepted quantities :
ADR Packing instructions : P207 LP200
ADR Special packing provisions : PP87 RR6 L2
ADR Mixed packing provisions :
Instructions for portable tanks and bulk containers :
Special provisions for portable tanks and bulk containers :
ADR tank code :
ADR tanks special provisions :
Vehicle for tank carriage :
ADR Transport category : 2
ADR Tunnel restriction code : D
ADR Special provisions loading, unloading and handling :
Special provisions - Packages : V14
Special provisions - Bulk :
Special provisions - Operation : S2
ADR Hazard identification number (Kemler No.) :

RID

Special provisions : 190+327+344+625
Limited quantity (LQ) : 1L
Excepted quantities :

ADN

Special provisions :
Limited quantity (LQ) : 1L
Excepted quantities :

IMDG

Special provisions :



Zinkspray hell

<u>Limited quantity (LQ)</u>	:	1L
<u>Excepted quantities</u>	:	
<u>Packing instructions</u>	:	
<u>Special packing provisions</u>	:	
<u>IBC instruction(s)</u>	:	
<u>IBC provisions</u>	:	
<u>Instructions for portable tanks and bulk containers</u>	:	
<u>Special provisions for portable tanks and bulk containers</u>	:	
<u>EmS codes</u>	:	F-D, S-U
<u>Stowage and handling</u>	:	Category None SW1 SW22
<u>Segregation</u>	:	
<u>Properties and observations</u>	:	

IATA

<u>PCA - Excepted quantities</u>	:	
<u>PCA - Limited Quantity - Packing Instructions</u>	:	Y203
<u>PCA - Limited Quantity - Maximum Net Quantity per Package</u>	:	30kg
<u>PCA - Packing Instructions</u>	:	203
<u>PCA - Maximum Net Quantity per Package</u>	:	25kg
<u>CAO - Packing Instructions</u>	:	
<u>CAO - Maximum Net Quantity per Package</u>	:	
<u>Special Provisions</u>	:	A145 A167 A802
<u>ERG Code</u>	:	

14.7 - Maritime transport in bulk according to IMO instruments

SECTION 15: Regulatory information

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

Substances REACH candidates None

Substances Annex XIV None

Substances Annex XVII None

VOC content 642 g/l

-- COMMISSION REGULATION (EU) 2016/918 of 19 May 2016 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures. The Regulation has been published in the Official Journal of the European Union No. L 156, on 14 June, 2016;

-- COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (OJ L 203, 26.6.2020, p. 28–58);

-- COUNCIL DIRECTIVE of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers (75/324/EEC) (OJ L 147, 9.6.1975, p. 40)

-- On 16 December 2008 the Regulation (EC) No. 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of chemical substances and mixtures was undersigned. The said Regulation amended and repealed the directives 67/548/EEC and 1999/45/EC and Regulation (EC) No. 1907/2006 (the REACH Regulation). The Regulation has been published in the Official Journal of the European Union No. L 353, volume 51 on 31 December, 2008;

Zinkspray hell

- -- Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No.793/93, Commission Regulation (EC) No. 1488/94, Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Official Journal of the European Union No. L 396, 30-12-2006, error correction – No. L 136/3, 2007-5-29);
- -- The European Agreement concerning International Carriage of Dangerous Goods by Road (ADR).
- Directive 2004/42/EC on the limitation of emissions of volatile organic compounds
- Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work
- Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
- Swiss Regulations: Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2).
- Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]
- P3a Flammable aerosols
- Use restriction according to REACH annex XVII, no.: 3, 40
- Acquisition, introduction, possession or use of this product by the general public is restricted by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.
- Acetone

15.2 - Chemical Safety Assessment

Chemical safety assessment carried out for the product - No information available.

SECTION 16: Other information

SDS versions

Version	Issue date	Author	Description of the amendments
4	07/01/2025		Indication of changes: Section: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16.
3	24/10/2024		Indication of changes: Section: 1, 8
2	12/01/2024		Indication of changes: Section: 4, 5, 6, 7, 8, 11, 12, 13.
1	27/06/2022		

Abbreviations and acronyms

- ACGIH – Association advancing occupational and environmental health.
- ADN – European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
- ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road.
- CAS – Chemical Abstracts Service number.
- CEN – European Committee for Standardisation.
- EC50 – Effective concentration to 50% of a test population (half maximal effective concentration).
- IC50 – Inhibitory concentration to 50% of a test population (half maximal inhibitory concentration).
- IMDG – International Maritime Dangerous Goods.
- IMO – International Maritime Organization.
- LC50 – Lethal Concentration to 50 % of a test population.
- LD50 – Lethal Dose to 50% of a test population (Median Lethal Dose).



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- MSDS – Material Safety Data Sheet.
- NIOSH – National Institute of Occupational Safety and Health.
- NOEC – No effect concentration.
- PBT – Persistent, Bioaccumulative and Toxic substance.
- PNEC(s) – Predicted No Effect Concentration(s).
- RID – Regulations concerning the International Carriage of Dangerous Goods by Rail.
- STOT – Specific Target Organ Toxicity.
- vPvB – Very Persistent and Very Bioaccumulative.

Data sources:

European Chemicals Agency (ECHA)
European Chemicals Bureau (ECB)
International Laboratories Organization (ILO)

Texts of the regulatory sentences

Acute Tox. 4 Dermal	Acute toxicity (dermal) - Category 4
Acute Tox. 4 Inhalation	Acute toxicity (inhalative) - Category 4
Acute Tox. 4 Oral	Acute toxicity (oral) - Category 4
Aerosol 1	Aerosol - Category 1
Aquatic Acute 1	Hazardous to the aquatic environment - Aquatic Acute 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Aquatic Chronic 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Aquatic Chronic 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Aquatic Chronic 3
Asp. Tox. 1	Aspiration hazard - Category 1
Carc. 1B	Carcinogenicity - Category 1B
Eye Irrit. 2	Eye irritation - Category 2
Flam. Gas 1	Flammable gas. - Category 1
Flam. Liq. 2	Flammable liquid and vapour. - Category 2
Flam. Liq. 3	Flammable liquid and vapour. - Category 3
Flam. Sol. 1	Flammable solid. - Category 1
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.
H261	In contact with water releases flammable gases.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs (central nervous system) through prolonged or repeated exposure (inhalative).
H410	Very toxic to aquatic life with long lasting effects.



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H411	Toxic to aquatic life with long lasting effects.
Press. Gas	Gases under pressure
Repr. 2	Reproductive toxicity - Category 2
Skin Irrit. 2	Irritation, Category 2
STOT RE 2	STOT-repeated exposure - Category 2
STOT SE 3	STOT-single exposure - Category 3 (H335)
Water-react. 2	Substances or mixtures which, in contact with water, emit flammable gases - Category 2

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.

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