

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version 4.2 Revision Date: 28.07.2020 SDS Number: 102000005084 Print Date: 08.08.2020
Date of first issue: 13.02.2014

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

1.1 Product identifier

Trade name : Agent Zincflake E 190 kgs 17-09029
Product code : 08835825V

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

This information is not available.

1.3 Details of the supplier of the safety data sheet

Company :

E-mail address of person responsible for the SDS : msds.eckart@altana.com

1.4 Emergency telephone number

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 2	H225: Highly flammable liquid and vapour.
Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure, Category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



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Revision Date:
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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.
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.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331 Do NOT induce vomiting.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Hazardous components which must be listed on the label:

xylene
ethyl acetate
n-butyl acetate
acetone
Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha
butan-1-ol

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification REGULATION (EC) No 1272/2008	Concentration (% w/w)
xylene	1330-20-7 215-535-7 01-2119488216-32	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 STOT RE 2; H373 Asp. Tox. 1; H304	$\geq 10 - < 20$
zinc powder — zinc dust (stabilised)	7440-66-6 231-175-3 01-2119467174-37	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	$\geq 10 - < 20$
ethyl acetate	141-78-6 205-500-4 01-2119475103-46	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	$\geq 10 - < 20$
n-butyl acetate	123-86-4 204-658-1 01-2119485493-29	Flam. Liq. 3; H226 STOT SE 3; H336	$\geq 10 - < 20$
acetone	67-64-1 200-662-2 01-2119471330-49	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	$\geq 10 - < 20$
aluminium powder (stabilised)	7429-90-5 231-072-3 01-2119529243-45	Flam. Sol. 1; H228	$\geq 1 - < 10$
butan-1-ol	71-36-3 200-751-6 01-2119484630-38	Flam. Liq. 3; H226 Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335, H336	$\geq 1 - < 3$
Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates	68308-64-5 939-607-9	Acute Tox. 4; H302 Acute Tox. 3; H311 Skin Corr. 1C; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	$\geq 0.25 - < 1$

For explanation of abbreviations see section 16.

SAFETY DATA SHEET

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Agent Zincflake E 190 kgs 17-09029

Version 4.2 Revision Date: 28.07.2020 SDS Number: 102000005084 Print Date: 08.08.2020
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SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Move the victim to fresh air.
Do not leave the victim unattended.
- Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Symptoms of poisoning may appear several hours later.
- If inhaled : Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical advice.
- In case of skin contact : Wash off immediately with soap and plenty of water.
- If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
- Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

- Risks : May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed

This information is not available.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Dry sand
ABC powder
Foam

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas.
Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Use mechanical handling equipment.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



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Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Do not flush with water.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.
- Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.
- Hygiene measures : When using do not eat or drink. When using do not smoke.
Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Earthing of containers and apparatuses is essential. Reaction with water liberates extremely flammable gas (hydrogen) Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep away from sources of ignition - No smoking. Keep container closed when not in use.

No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Electrical installations / working materials must comply with the technological safety standards.

- Further information on : Protect from humidity and water.
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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version 4.2 Revision Date: 28.07.2020 SDS Number: 102000005084 Print Date: 08.08.2020
Date of first issue: 13.02.2014

storage conditions

Advice on common storage : Do not store near acids.
Do not store together with oxidizing and self-igniting products.
Never allow product to get in contact with water during storage.
Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Further information on storage stability : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
xylene	1330-20-7	TWA	50 ppm 221 mg/m ³	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	100 ppm 442 mg/m ³	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		TWA	50 ppm 220 mg/m ³	GB EH40
Further information	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL	100 ppm 441 mg/m ³	GB EH40
Further information	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
zinc powder — zinc dust (stabilised)	7440-66-6	TWA (Inhalable)	10 mg/m ³	GB EH40
Further information	The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m ⁻³ 8-hour TWA of inhalable dust or 4 mg.m ⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.			
		TWA (Respirable fraction)	4 mg/m ³	GB EH40
Further information	The COSHH definition of a substance hazardous to health includes dust of			

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version
4.2

Revision Date:
28.07.2020

SDS Number:
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	any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.			
ethyl acetate	141-78-6	TWA	200 ppm 734 mg/m3	GB EH40
		STEL	400 ppm 1,468 mg/m3	GB EH40
		STEL	400 ppm 1,468 mg/m3	2017/164/EU
Further information	Indicative			
		TWA	200 ppm 734 mg/m3	2017/164/EU
Further information	Indicative			
n-butyl acetate	123-86-4	TWA	150 ppm 724 mg/m3	GB EH40
		STEL	200 ppm 966 mg/m3	GB EH40
		STEL	150 ppm 723 mg/m3	2019/1831/E U
Further information	Indicative			
		TWA	50 ppm 241 mg/m3	2019/1831/E U
Further information	Indicative			
acetone	67-64-1	TWA	500 ppm 1,210 mg/m3	2000/39/EC
Further information	Indicative			
		TWA	500 ppm 1,210 mg/m3	GB EH40
		STEL	1,500 ppm 3,620 mg/m3	GB EH40
aluminium powder (stabilised)	7429-90-5	TWA (Inhalable)	10 mg/m3	GB EH40
Further information	The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.			
		TWA (Respirable fraction)	4 mg/m3	GB EH40
Further information	The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned			

SAFETY DATA SHEET

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	specific WELs and exposure to these must comply with the appropriate limits., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.		
	TWA (inhalable dust)	10 mg/m ³	GB EH40
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m ⁻³ 8-hour TWA of inhalable dust or 4 mg.m ⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.		
	TWA (Respirable dust)	4 mg/m ³	GB EH40
Further information	For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols., The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m ⁻³ 8-hour TWA of inhalable dust or 4 mg.m ⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4., Where dusts contain components that have their own assigned		

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version
4.2

Revision Date:
28.07.2020

SDS Number:
102000005084

Print Date: 08.08.2020
Date of first issue: 13.02.2014

	WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.			
butan-1-ol	71-36-3	STEL	50 ppm 154 mg/m ³	GB EH40
Further information	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			

Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
xylene	1330-20-7	methyl hippuric acid: 650 Millimoles per mole Creatinine (Urine)	After shift	GB EH40 BAT

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
xylene	Consumers	Inhalation	Long-term local effects	65.3 mg/m ³
	Consumers	Inhalation	Long-term systemic effects	65.3 mg/m ³
	Consumers	Inhalation	Acute systemic effects	260 mg/m ³
	Consumers	Skin contact	Long-term systemic effects	125 mg/kg
	Consumers	Ingestion	Long-term systemic effects	12.5 mg/kg
	Workers	Inhalation	Long-term local effects	221 mg/m ³
	Workers	Inhalation	Long-term systemic effects	221 mg/m ³
	Workers	Inhalation	Acute systemic effects	442 mg/m ³
	Workers	Skin contact	Long-term systemic effects	212 mg/kg
zinc powder — zinc dust (stabilised)	Workers	Inhalation	Long-term systemic effects	5 mg/m ³
	Workers	Skin contact	Long-term systemic effects	83 mg/kg
	Consumers	Inhalation	Long-term systemic effects	2.5 mg/m ³
	Consumers	Skin contact	Long-term systemic effects	83 mg/kg
	Consumers	Ingestion	Long-term systemic effects	0.83 mg/kg
ethyl acetate	Workers	Inhalation	Acute local effects	1468 mg/m ³
	Workers	Inhalation	Acute systemic effects	1468 mg/m ³
	Workers	Inhalation	Long-term local	734 mg/m ³

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version
4.2

Revision Date:
28.07.2020

SDS Number:
102000005084

Print Date: 08.08.2020
Date of first issue: 13.02.2014

			effects	
	Workers	Skin contact	Long-term systemic effects	63 mg/kg
	Workers	Inhalation	Long-term systemic effects	734 mg/m3
	Consumers	Inhalation	Acute local effects	734 mg/m3
	Consumers	Inhalation	Acute systemic effects	734 mg/m3
	Consumers	Inhalation	Long-term local effects	367 mg/m3
	Consumers	Skin contact	Long-term systemic effects	37 mg/kg
	Consumers	Inhalation	Long-term systemic effects	367 mg/m3
	Consumers	Ingestion	Long-term systemic effects	4.5 mg/kg
acetone	Workers	Skin contact	Long-term systemic effects	186 mg/kg
	Workers	Inhalation	Long-term systemic effects	1210 mg/m3
	Consumers	Ingestion	Long-term systemic effects	62 mg/kg
	Consumers	Skin contact	Long-term systemic effects	62 mg/kg
	Consumers	Inhalation	Long-term systemic effects	200 mg/m3
	Workers	Inhalation	Acute local effects	2420 mg/m3
aluminium powder (stabilised)	Workers	Inhalation	Long-term local effects	3.72 mg/m3
	Consumers	Oral	Long-term systemic effects	3.95 mg/kg
	Workers	Inhalation	Long-term systemic effects	3.72 mg/m3
Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha	Workers	Skin contact	Long-term systemic effects	300 mg/kg
	Consumers	Ingestion	Long-term systemic effects	300 mg/kg
	Consumers	Skin contact	Long-term systemic effects	300 mg/kg
	Consumers	Inhalation	Long-term systemic effects	900 mg/m3
butan-1-ol	Workers	Inhalation	Long-term local effects	310 mg/m3
	Consumers	Inhalation	Long-term systemic effects	55.357 mg/m3
	Consumers	Inhalation	Long-term local effects	155 mg/m3
	Consumers	Skin contact	Long-term systemic effects	3.125 mg/kg

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version
4.2

Revision Date:
28.07.2020

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Print Date: 08.08.2020
Date of first issue: 13.02.2014

	Consumers	Oral	Long-term systemic effects	1.562 mg/kg
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Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
xylene	Fresh water	0.1 mg/l
	Marine water	0.01 mg/l
	Fresh water sediment	13.7 mg/l
	Marine sediment	1.37 mg/l
	Soil	2.68 mg/l
	Secondary Poisoning	20 mg/kg
zinc powder — zinc dust (stabilised)	STP	9.6 mg/l
	Fresh water	0.0206 mg/l
ethyl acetate	Marine water	0.0061 mg/l
	Fresh water sediment	235.6 mg/kg
	Marine sediment	121 mg/kg
	Soil	106.8 mg/kg
	Soil	0.148 mg/kg
n-butyl acetate	STP	650 mg/l
	Fresh water	0.24 mg/l
	Marine water	0.024 mg/l
	Fresh water sediment	1.15 mg/kg
	Marine sediment	0.115 mg/kg
acetone	Fresh water	0.18 mg/l
	Marine water	0.018 mg/l
	STP	35.6 mg/l
	Fresh water sediment	0.981 mg/kg
	Marine sediment	0.098 mg/kg
aluminium powder (stabilised)	Soil	0.090 mg/kg
	Soil	29.5 mg/kg
	Fresh water	10.6 mg/l
	Fresh water sediment	30.4 mg/kg
	Marine water	1.06 mg/l
butan-1-ol	Marine sediment	3.04 mg/kg
	STP	100 mg/l
	Fresh water	0.0749 mg/l
	clarification plant	20 mg/l
butan-1-ol	Fresh water	0.082 mg/l
	Marine water	0.008 mg/l
	Intermittent Release	2.25 mg/l
	STP	2476 mg/l
	Fresh water sediment	0.324 mg/kg
	Marine sediment	0.032 mg/kg
	Soil	0.017 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye protection : Goggles

Wear face-shield and protective suit for abnormal processing

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version 4.2 Revision Date: 28.07.2020 SDS Number: 102000005084 Print Date: 08.08.2020
Date of first issue: 13.02.2014

problems.

Hand protection
Material

: Solvent-resistant gloves (butyl-rubber)

Remarks

: Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). The exact break through time can be obtained from the protective glove producer and this has to be observed. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Recommended preventive skin protection Skin should be washed after contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection

: Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection

: Use suitable breathing protection if workplace concentration requires.

In the case of vapour formation use a respirator with an approved filter.

Environmental exposure controls

Water

: The product should not be allowed to enter drains, water courses or the soil.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid
Colour : No data available
Odour : characteristic
Odour Threshold : No data available
pH : No data available
Freezing point : No data available

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version 4.2 Revision Date: 28.07.2020 SDS Number: 102000005084 Print Date: 08.08.2020
Date of first issue: 13.02.2014

Boiling point/boiling range : 55 °C

Flash point : -19 °C

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Self-ignition : No data available

Auto-ignition temperature : No data available

Smoldering temperature : No data available

Decomposition temperature : No data available

Explosive properties : No data available

Oxidizing properties : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : ca. 1 g/cm³

Bulk density : No data available

Solubility(ies)
Water solubility : immiscible

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Decomposition temperature : No data available

Viscosity
Viscosity, dynamic : see user defined free text

Viscosity, kinematic : No data available

Flow time : 13 - 16 s at 20 °C

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version
4.2

Revision Date:
28.07.2020

SDS Number:
102000005084

Print Date: 08.08.2020
Date of first issue: 13.02.2014

Cross section: 4 mm
Method: DIN 53211

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : Contact with acids and alkalis may release hydrogen.

Stable under recommended storage conditions.

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Do not allow evaporation to dryness.

Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Acids
Bases
Oxidizing agents

10.6 Hazardous decomposition products

Contact with water or humid air : This information is not available.

Thermal decomposition : This information is not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Product:

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version 4.2 Revision Date: 28.07.2020 SDS Number: 102000005084 Print Date: 08.08.2020
Date of first issue: 13.02.2014

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Components:

xylene:

Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after short term inhalation.

zinc powder — zinc dust (stabilised):

Acute oral toxicity : (Rat): > 2,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 5.41 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

ethyl acetate:

Acute oral toxicity : (Rat): 5,620 mg/kg

Acute inhalation toxicity : LC50 (Rat): 56 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): > 18,000 mg/kg

acetone:

Acute oral toxicity : LD50 (Rabbit): 4,700 - 5,800 mg/kg

(Mouse): 3,000 mg/kg

(Rat): 9,800 mg/kg

Acute inhalation toxicity : LC50 (Rat): 76 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

aluminium powder (stabilised):

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l
Exposure time: 4 h

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version
4.2

Revision Date:
28.07.2020

SDS Number:
102000005084

Print Date: 08.08.2020
Date of first issue: 13.02.2014

Test atmosphere: dust/mist

Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

Acute dermal toxicity : Assessment: The component/mixture is toxic after single contact with skin.

Skin corrosion/irritation

Causes skin irritation.

Product:

Remarks: May cause skin irritation in susceptible persons.

Components:

xylene:

Result: Skin irritation

acetone:

Remarks: Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin.

butan-1-ol:

Result: Skin irritation

Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates:

Result: Corrosive, category 1C - where responses occur after exposures between 1 hour and 4 hours and observations up to 14 days.

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks: Eye irritation

Components:

xylene:

Result: Eye irritation

acetone:

Remarks: Severe eye irritation

butan-1-ol:

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version
4.2

Revision Date:
28.07.2020

SDS Number:
102000005084

Print Date: 08.08.2020
Date of first issue: 13.02.2014

Result: Irreversible effects on the eye

Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates:

Result: Irreversible effects on the eye

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

May cause respiratory irritation.

May cause drowsiness or dizziness.

Components:

xylene:

Assessment: May cause respiratory irritation.

n-butyl acetate:

Assessment: May cause drowsiness or dizziness.

butan-1-ol:

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

STOT - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Components:

xylene:

Target Organs: Central nervous system

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

Aspiration toxicity

May be fatal if swallowed and enters airways.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version
4.2

Revision Date:
28.07.2020

SDS Number:
102000005084

Print Date: 08.08.2020
Date of first issue: 13.02.2014

Components:

xylene:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Concentrations substantially above the TLV value may cause narcotic effects.

Solvents may degrease the skin.

Components:

zinc powder — zinc dust (stabilised):

Remarks: No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

zinc powder — zinc dust (stabilised):

Ecotoxicology Assessment

Short-term (acute) aquatic hazard : Very toxic to aquatic life.

Long-term (chronic) aquatic hazard : Very toxic to aquatic life with long lasting effects.

ethyl acetate:

Toxicity to daphnia and other aquatic invertebrates : (Daphnia (water flea)): 717 mg/l

acetone:

Toxicity to daphnia and other aquatic invertebrates : (Daphnia magna (Water flea)): 21,600 mg/l

Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates:

M-Factor (Short-term (acute) aquatic hazard) : 10

M-Factor (Long-term (chronic) aquatic hazard) : 1

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version 4.2 Revision Date: 28.07.2020 SDS Number: 102000005084 Print Date: 08.08.2020
Date of first issue: 13.02.2014

Ecotoxicology Assessment

Short-term (acute) aquatic hazard : Very toxic to aquatic life.

Long-term (chronic) aquatic hazard : Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Components:

n-butyl acetate:

Partition coefficient: n-octanol/water : log Pow: 2.3

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life with long lasting effects.

Components:

zinc powder — zinc dust (stabilised):

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

European Waste Catalogue : 08 01 11 - waste paint and varnish containing organic solvents or other dangerous substances

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version
4.2

Revision Date:
28.07.2020

SDS Number:
102000005084

Print Date: 08.08.2020
Date of first issue: 13.02.2014

courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
In accordance with local and national regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.
In accordance with local and national regulations.

SECTION 14: Transport information

14.1 UN number

ADR : UN 1263
IMDG : UN 1263
IATA : UN 1263

14.2 UN proper shipping name

ADR : PAINT
IMDG : PAINT
(Zinc powder, stabilized)
IATA : Paint

14.3 Transport hazard class(es)

ADR : 3
IMDG : 3
IATA : 3

14.4 Packing group

ADR
Packing group : II
Classification Code : F1
Hazard Identification Number : 33
Labels : 3
Tunnel restriction code : (D/E)

IMDG
Packing group : II
Labels : 3
EmS Code : F-E, S-E

IATA (Cargo)
Packing instruction (cargo aircraft) : 364
Packing instruction (LQ) : Y341

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version 4.2 Revision Date: 28.07.2020 SDS Number: 102000005084 Print Date: 08.08.2020
Date of first issue: 13.02.2014

Packing group : II
Labels : Flammable Liquids

IATA (Passenger)

Packing instruction (passenger aircraft) : 353
Packing instruction (LQ) : Y341
Packing group : II
Labels : Flammable Liquids

14.5 Environmental hazards

ADR

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Volatile organic compounds : Directive 2004/42/EC
Volatile organic compounds (VOC) content: 63.97 %, 639.68 g/l

15.2 Chemical safety assessment

SECTION 16: Other information

Full text of H-Statements

H225 : Highly flammable liquid and vapour.
H226 : Flammable liquid and vapour.
H228 : Flammable solid.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version 4.2 Revision Date: 28.07.2020 SDS Number: 102000005084 Print Date: 08.08.2020
Date of first issue: 13.02.2014

- H302 : Harmful if swallowed.
- H304 : May be fatal if swallowed and enters airways.
- H311 : Toxic in contact with skin.
- H312 : Harmful in contact with skin.
- H314 : 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 through prolonged or repeated exposure.

- H400 : Very toxic to aquatic life.
- H410 : Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

- Acute Tox. : Acute toxicity
- Aquatic Acute : Short-term (acute) aquatic hazard
- Aquatic Chronic : Long-term (chronic) aquatic hazard
- Asp. Tox. : Aspiration hazard
- Eye Dam. : Serious eye damage
- Eye Irrit. : Eye irritation
- Flam. Liq. : Flammable liquids
- Flam. Sol. : Flammable solids
- Skin Corr. : Skin corrosion
- Skin Irrit. : Skin irritation
- STOT RE : Specific target organ toxicity - repeated exposure
- STOT SE : Specific target organ toxicity - single exposure
- 2000/39/EC : Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
- 2017/164/EU : Europe. Commission Directive 2017/164/EU establishing a fourth list of indicative occupational exposure limit values
- 2019/1831/EU : Europe. Commission Directive 2019/1831/EU establishing a fifth list of indicative occupational exposure limit values
- GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
- GB EH40 BAT : UK. Biological monitoring guidance values
- 2000/39/EC / TWA : Limit Value - eight hours
- 2000/39/EC / STEL : Short term exposure limit
- 2017/164/EU / STEL : Short term exposure limit
- 2017/164/EU / TWA : Limit Value - eight hours
- 2019/1831/EU / TWA : Limit Value - eight hours
- 2019/1831/EU / STEL : Short term exposure limit
- GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)
- GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

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; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Agent Zincflake E 190 kgs 17-09029

Version	Revision Date:	SDS Number:	Print Date: 08.08.2020
4.2	28.07.2020	102000005084	Date of first issue: 13.02.2014

number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GB / EN