

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

Section 1: Identification

Product name : ZINC SPRAY LIGHT PERFECT

Product code : 0893 114 114

Manufacturer or supplier's details

Company : Wurth NewZealand Ltd

Address : 99 McLaughlins Road
Wiri, Auckland 2104

Telephone : +64 9 262 3040

Emergency telephone number : 0800 764 766

E-mail address : prodsafe@wuerth.com

Telefax : +64 9 262 3030

Recommended use of the chemical and restrictions on use

Recommended use : Solvent-borne coatings
Compressed Gas (Aerosol cans)

Section 2: Hazard identification**GHS Classification**



Aerosols : Category 1

Skin corrosion/irritation : Category 2

Serious eye damage/eye irritation : Category 2A

Specific target organ toxicity - single exposure : Category 3

GHS label elements

Hazard pictograms :  

Signal word : Danger

Hazard statements : H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H315 Causes skin irritation.

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
 Date of first issue: 18.07.2012

H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.

Precautionary statements :

Prevention:
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P211 Do not spray on an open flame or other ignition source.
 P251 Do not pierce or burn, even after use.
 P261 Avoid breathing spray.
 P264 Wash skin thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/ eye protection/ face protection.

Response:
 P302 + P352 IF ON SKIN: Wash with plenty of water.
 P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:
 P405 Store locked up.
 P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Disposal:
 P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

None known.

Section 3: Composition/information on ingredients

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Dimethyl ether	115-10-6	>= 30 -< 60
Xylene	1330-20-7	>= 1 -< 10
Ethyl acetate	141-78-6	< 10
n-Butyl acetate	123-86-4	< 10
Acetone	67-64-1	< 10
Aluminium	7429-90-5	< 10
Hydrocarbons, C10-C13, n-alkanes, isoal-	Not Assigned	>= 1 -< 10

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
 Date of first issue: 18.07.2012

kanes, cyclics, <2% aromatics		
Butan-1-ol	71-36-3	>= 1 -< 3
Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates	68308-64-5	< 1

Section 4: First-aid measures

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
 When symptoms persist or in all cases of doubt seek medical advice.
- If inhaled : If inhaled, remove to fresh air.
 Get medical attention if symptoms occur.
- In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
 Get medical attention.
 Wash clothing before reuse.
 Thoroughly clean shoes before reuse.
- In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
 If easy to do, remove contact lens, if worn.
 Get medical attention.
- If swallowed : If swallowed, DO NOT induce vomiting.
 Get medical attention if symptoms occur.
 Rinse mouth thoroughly with water.
- Most important symptoms and effects, both acute and delayed : Causes skin irritation.
 Causes serious eye irritation.
 May cause drowsiness or dizziness.
- Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
- Notes to physician : Treat symptomatically and supportively.

Section 5: Fire-fighting measures

- Suitable extinguishing media : Water spray
 Alcohol-resistant foam
 Carbon dioxide (CO₂)
 Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire-fighting : Flash back possible over considerable distance.
 Vapours may form explosive mixtures with air.

ZINC SPRAY LIGHT PERFECT

Version	Revision Date:	SDS Number:	Date of last issue: 23.12.2020
4.0	22.09.2021	3720177-00006	Date of first issue: 18.07.2012

Exposure to combustion products may be a hazard to health. If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.

- | | | |
|---|---|---|
| Hazardous combustion products | : | Carbon oxides
Metal oxides |
| Specific extinguishing methods | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area. |
| Special protective equipment for firefighters | : | In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment. |
| Hazchem Code | : | 2YE |
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Section 6: Accidental release measures

- | | | |
|---|---|--|
| Personal precautions, protective equipment and emergency procedures | : | Remove all sources of ignition.
Use personal protective equipment.
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8). |
| Environmental precautions | : | Avoid release to the environment.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained. |
| Methods and materials for containment and cleaning up | : | Non-sparking tools should be used.
Soak up with inert absorbent material.
Suppress (knock down) gases/vapours/mists with a water spray jet.
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements. |
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Section 7: Handling and storage

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| Technical measures | : | See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section. |
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ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
 Date of first issue: 18.07.2012

- Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.
 If advised by assessment of the local exposure potential, use only in an area equipped with explosion-proof exhaust ventilation.
- Advice on safe handling : Do not get on skin or clothing.
 Do not breathe spray.
 Do not swallow.
 Do not get in eyes.
 Wash skin thoroughly after handling.
 Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Take precautionary measures against static discharges.
 Take care to prevent spills, waste and minimize release to the environment.
 Do not spray on an open flame or other ignition source.
- Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
 When using do not eat, drink or smoke.
 Wash contaminated clothing before re-use.
- Conditions for safe storage : Store locked up.
 Keep in a cool, well-ventilated place.
 Store in accordance with the particular national regulations.
 Do not pierce or burn, even after use.
 Keep cool. Protect from sunlight.
- Materials to avoid : Do not store with the following product types:
 Self-reactive substances and mixtures
 Organic peroxides
 Oxidizing agents
 Flammable liquids
 Pyrophoric liquids
 Pyrophoric solids
 Self-heating substances and mixtures
 Explosives
- Recommended storage temperature : < 50 °C

Section 8: Exposure controls/personal protection

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

Dimethyl ether	115-10-6	WES-STEL	500 ppm 958 mg/m ³	NZ OEL
		WES-TWA	400 ppm 766 mg/m ³	NZ OEL
Xylene	1330-20-7	WES-TWA	50 ppm 217 mg/m ³	NZ OEL
		TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
Ethyl acetate	141-78-6	WES-TWA	200 ppm 720 mg/m ³	NZ OEL
		TWA	400 ppm	ACGIH
n-Butyl acetate	123-86-4	WES-STEL	200 ppm 950 mg/m ³	NZ OEL
		WES-TWA	150 ppm 713 mg/m ³	NZ OEL
		TWA	50 ppm	ACGIH
		STEL	150 ppm	ACGIH
Acetone	67-64-1	WES-TWA	500 ppm 1,185 mg/m ³	NZ OEL
	Further information: Exposure can also be estimated by biological monitoring			
		WES-STEL	1,000 ppm 2,375 mg/m ³	NZ OEL
	Further information: Exposure can also be estimated by biological monitoring			
		TWA	250 ppm	ACGIH
		STEL	500 ppm	ACGIH
Aluminium	7429-90-5	WES-TWA (inhalable dust)	10 mg/m ³ (Aluminium)	NZ OEL
		TWA (Respirable particulate matter)	1 mg/m ³ (Aluminium)	ACGIH
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	Not Assigned	WES-TWA	300 ppm 890 mg/m ³	NZ OEL
		WES-STEL	500 ppm 1,480 mg/m ³	NZ OEL
		WES-TWA (Mist)	5 mg/m ³	NZ OEL
		WES-STEL (Mist)	10 mg/m ³	NZ OEL
		TWA (Inhalable particulate matter)	5 mg/m ³	ACGIH
Butan-1-ol	71-36-3	WES-Ceiling	50 ppm 150 mg/m ³	NZ OEL
	Further information: Skin absorption			
		TWA	20 ppm	ACGIH

Occupational exposure limits of decomposition products

Components	CAS-No.	Value type	Control parame-	Basis
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ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
 Date of first issue: 18.07.2012

		(Form of exposure)	ters / Permissible concentration	
Formaldehyde	50-00-0	WES-STEL	0.6 ppm	NZ OEL
	Further information: Confirmed carcinogen, Skin sensitiser			
		TWA	0.1 ppm	ACGIH
		STEL	0.3 ppm	ACGIH
Methanol	67-56-1	WES-STEL	250 ppm 328 mg/m ³	NZ OEL
	Further information: Exposure can also be estimated by biological monitoring, Skin absorption			
		WES-TWA	200 ppm 262 mg/m ³	NZ OEL
	Further information: Exposure can also be estimated by biological monitoring, Skin absorption			
		TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sam-pling time	Permissible concentra-tion	Basis
Xylene	1330-20-7	Methylhip-puric acid	Urine	End of shift	1.5 g/l	NZ BEI
		Methylhip-puric acids	Urine	End of shift (As soon as possible after exposure ceases)	1.5 g/g cre-atinine	ACGIH BEI
Acetone	67-64-1	Acetone	Urine	End of shift	50 mg/l	NZ BEI
		Acetone	Urine	End of shift (As soon as possible after exposure ceases)	25 mg/l	ACGIH BEI

Engineering measures : Processing may form hazardous compounds (see section 10).
 Minimize workplace exposure concentrations.
 If sufficient ventilation is unavailable, use with local exhaust ventilation.
 If advised by assessment of the local exposure potential, use only in an area equipped with explosion-proof exhaust ventilation.

Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

Filter type	: Self-contained breathing apparatus
Hand protection	
Material	: butyl-rubber
Break through time	: > 480 min
Glove thickness	: 0.7 mm
Remarks	: Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.
Eye protection	: Wear the following personal protective equipment: Safety goggles
Skin and body protection	: Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. Wear the following personal protective equipment: If assessment demonstrates that there is a risk of explosive atmospheres or flash fires, use flame retardant antistatic protective clothing. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Section 9: Physical and chemical properties

Appearance	: aerosol
Propellant	: Dimethyl ether
Colour	: silver
Odour	: characteristic
Odour Threshold	: No data available
pH	: Solvent mixture; pH value determination not possible, no aqueous solution
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: -24 °C

ZINC SPRAY LIGHT PERFECT

Version	Revision Date:	SDS Number:	Date of last issue: 23.12.2020
4.0	22.09.2021	3720177-00006	Date of first issue: 18.07.2012

Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	Extremely flammable aerosol.
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable
Density	:	0.81 g/cm ³ (20 °C)
Solubility(ies) Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity Viscosity, kinematic	:	Not applicable
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Particle size	:	Not applicable

Section 10: Stability and reactivity

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Extremely flammable aerosol. Vapours may form explosive mixture with air. If the temperature rises there is danger of the vessels bursting due to the high vapor pressure. Can react with strong oxidizing agents. Hazardous decomposition products will be formed at elevated temperatures.
Conditions to avoid	:	Heat, flames and sparks.

ZINC SPRAY LIGHT PERFECT

Version	Revision Date:	SDS Number:	Date of last issue: 23.12.2020
4.0	22.09.2021	3720177-00006	Date of first issue: 18.07.2012

Incompatible materials : Oxidizing agents

Hazardous decomposition products

Thermal decomposition : Formaldehyde
Methanol

Section 11: Toxicological information

Exposure routes : Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Product:

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

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

Components:**Dimethyl ether:**

Acute inhalation toxicity : LC50 (Rat): 164000 ppm
Exposure time: 4 h
Test atmosphere: gas

Xylene:

Acute oral toxicity : LD50 (Rat): 3,523 mg/kg
Method: Directive 67/548/EEC, Annex V, B.1.

Acute inhalation toxicity : LC50 (Rat): 27.571 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): > 4,200 mg/kg

Ethyl acetate:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 22.5 mg/l
Exposure time: 6 h
Test atmosphere: vapour
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 20,000 mg/kg

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

n-Butyl acetate:

- Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
- Acute inhalation toxicity : LC50 (Rat): > 21.1 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
- Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

Acetone:

- Acute oral toxicity : LD50 (Rat): 5,800 mg/kg
- Acute inhalation toxicity : LC50 (Rat): 76 mg/l
Exposure time: 4 h
Test atmosphere: vapour
- Acute dermal toxicity : LD50 (Rabbit): 7,426 mg/kg

Aluminium:

- Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401
Remarks: Based on data from similar materials
- Acute inhalation toxicity : LC50 (Rat): > 0.888 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics:

- Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Remarks: Based on data from similar materials
- Acute inhalation toxicity : LC50 (Rat): > 4,951 mg/m³
Exposure time: 4 h
Test atmosphere: vapour
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Based on data from similar materials
- Acute dermal toxicity : LD50 (Rabbit): \geq 3,160 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Based on data from similar materials

Butan-1-ol:

- Acute oral toxicity : LD50 (Rat): 790 mg/kg
- Acute inhalation toxicity : LC0 (Rat): > 17.76 mg/l
Exposure time: 4 h

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): 3,430 mg/kg

Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates:

Acute oral toxicity : LD50 (Rat): 570 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

Acute dermal toxicity : LD50 (Rabbit, male): > 200 - 1,000 mg/kg
Method: OECD Test Guideline 402
Remarks: Based on data from similar materials

Skin corrosion/irritation

Causes skin irritation.

Components:

Xylene:

Species : Rabbit
Result : Skin irritation

Ethyl acetate:

Species : Rabbit
Result : No skin irritation

Assessment : Repeated exposure may cause skin dryness or cracking.

n-Butyl acetate:

Species : Rabbit
Result : No skin irritation

Assessment : Repeated exposure may cause skin dryness or cracking.

Acetone:

Assessment : Repeated exposure may cause skin dryness or cracking.

Aluminium:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
Remarks : Based on data from similar materials

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Species : Rabbit
Result : Mild skin irritation

Assessment : Repeated exposure may cause skin dryness or cracking.

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

Butan-1-ol:

Species : Rabbit
Result : Skin irritation

Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates:

Species : Rabbit
Method : OECD Test Guideline 404
Result : Corrosive after 1 to 4 hours of exposure

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:**|| Xylene:**

Species : Rabbit
Result : Irritation to eyes, reversing within 21 days

Ethyl acetate:

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405

n-Butyl acetate:

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405

Acetone:

Species : Rabbit
Result : Irritation to eyes, reversing within 21 days
Method : OECD Test Guideline 405

Aluminium:

Species : Rabbit
Result : No eye irritation
Remarks : Based on data from similar materials

|| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405
Remarks : Based on data from similar materials

Butan-1-ol:

Species : Rabbit
Result : Irreversible effects on the eye
Method : OECD Test Guideline 405

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates:

Result : Irreversible effects on the eye
Remarks : Based on skin corrosivity.

Respiratory or skin sensitisation**Skin sensitisation**

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:**Xylene:**

Test Type : Local lymph node assay (LLNA)
Exposure routes : Skin contact
Species : Mouse
Result : negative

Ethyl acetate:

Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : negative

n-Butyl acetate:

Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig
Result : negative

Acetone:

Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig
Result : negative

Aluminium:

Exposure routes : Skin contact
Species : Guinea pig
Result : negative
Remarks : Based on data from similar materials

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig
Result : negative
Remarks : Based on data from similar materials

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

Butan-1-ol:

Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig
Result : negative
Remarks : Based on data from similar materials

Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates:

Test Type : Buehler Test
Exposure routes : Skin contact
Species : Guinea pig
Result : negative
Remarks : Based on data from similar materials

Chronic toxicity**Germ cell mutagenicity**

Not classified based on available information.

Components:**Dimethyl ether:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Test Type: Sex-linked recessive lethal test in *Drosophila melanogaster* (in vivo)
Application Route: inhalation (gas)
Result: negative

|| Xylene:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Test Type: Chromosome aberration test in vitro
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Result: negative

Test Type: In vitro sister chromatid exchange assay in mammalian cells
Result: negative

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Species: Mouse
Application Route: Skin contact
Result: negative

Ethyl acetate:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Test Type: Chromosome aberration test in vitro
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Result: negative

Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo
cytogenetic assay)
Species: Hamster
Application Route: Ingestion
Result: negative

n-Butyl acetate:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Acetone:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Result: negative

Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Test Type: Chromosome aberration test in vitro
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo
cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Result: negative

Aluminium:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 474

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

Result: negative
Remarks: Based on data from similar materials

|| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Result: negative

Butan-1-ol:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative

Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative
Remarks: Based on data from similar materials

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative
Remarks: Based on data from similar materials

Carcinogenicity

Not classified based on available information.

Components:**Dimethyl ether:**

Species : Rat
Application Route : inhalation (vapour)
Exposure time : 2 Years
Result : negative

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
 Date of first issue: 18.07.2012

|| Xylene:

Species : Rat
 Application Route : Ingestion
 Exposure time : 103 weeks
 Result : negative

Acetone:

Species : Mouse
 Application Route : Skin contact
 Exposure time : 424 days
 Result : negative

Aluminium:

Species : Rat
 Application Route : inhalation (dust/mist/fume)
 Exposure time : 86 weeks
 Result : negative

|| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Species : Rat
 Application Route : inhalation (vapour)
 Exposure time : 105 weeks
 Result : negative
 Remarks : Based on data from similar materials

Reproductive toxicity

Not classified based on available information.

Components:

Dimethyl ether:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
 Species: Rat
 Application Route: inhalation (vapour)
 Result: negative

Effects on foetal development : Test Type: Embryo-foetal development
 Species: Rat
 Application Route: inhalation (vapour)
 Result: negative

|| Xylene:

Effects on fertility : Test Type: One-generation reproduction toxicity study
 Species: Rat
 Application Route: inhalation (vapour)
 Result: negative

Effects on foetal development : Test Type: Embryo-foetal development
 Species: Rat
 Application Route: inhalation (vapour)

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

Result: negative

Ethyl acetate:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Mouse
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Species: Rat
Application Route: inhalation (vapour)
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Inhalation
Result: negative
Remarks: Based on data from similar materials

Test Type: Embryo-foetal development
Species: Mouse
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

n-Butyl acetate:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: inhalation (vapour)
Method: OECD Test Guideline 416
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: inhalation (vapour)
Result: negative

Acetone:

Effects on fertility : Test Type: One-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: inhalation (vapour)
Result: negative

Aluminium:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
Species: Mouse
Application Route: Ingestion
Result: negative

|| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening test
Species: Rat
Application Route: inhalation (vapour)
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: inhalation (vapour)
Result: negative

Butan-1-ol:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: inhalation (vapour)
Method: OECD Test Guideline 416
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative

Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rabbit
Application Route: Skin contact
Result: negative
Remarks: Based on data from similar materials

STOT - single exposure

May cause drowsiness or dizziness.

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
 Date of first issue: 18.07.2012

Components:

Dimethyl ether:

Assessment : May cause drowsiness or dizziness.

Xylene:

Assessment : May cause respiratory irritation.

Ethyl acetate:

Assessment : May cause drowsiness or dizziness.

n-Butyl acetate:

Assessment : May cause drowsiness or dizziness.

Acetone:

Assessment : May cause drowsiness or dizziness.

Butan-1-ol:

Assessment : May cause respiratory irritation.
 May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Components:

Xylene:

Exposure routes : inhalation (vapour)
 Target Organs : Auditory system
 Assessment : Shown to produce significant health effects in animals at concentrations of >0.2 to 1 mg/l/6h/d.

Repeated dose toxicity

Components:

Dimethyl ether:

Species : Rat
 NOAEL : 47.11 mg/l
 Application Route : inhalation (vapour)
 Exposure time : 2 yr

Xylene:

Species : Rat
 LOAEL : > 0.2 - 1 mg/l
 Application Route : inhalation (vapour)
 Exposure time : 13 Weeks
 Remarks : Based on data from similar materials

Species : Rat

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

LOAEL : 150 mg/kg
Application Route : Ingestion
Exposure time : 90 Days

Ethyl acetate:

Species : Rat
NOAEL : 900 mg/kg
LOAEL : 3,600 mg/kg
Application Route : Ingestion
Exposure time : 90 Days

Species : Rat
NOAEL : 1.28 mg/l
LOAEL : 2.75 mg/kg
Application Route : inhalation (vapour)
Exposure time : 94 Days

n-Butyl acetate:

Species : Rat
NOAEL : 2.4 mg/l
Application Route : inhalation (vapour)
Exposure time : 90 Days

Acetone:

Species : Rat
NOAEL : 900 mg/kg
LOAEL : 1,700 mg/kg
Application Route : Ingestion
Exposure time : 90 Days

Species : Rat
NOAEL : 45 mg/l
Application Route : inhalation (vapour)
Exposure time : 8 Weeks

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Species : Rat
NOAEL : $\geq 1,000$ mg/kg
Application Route : Ingestion
Exposure time : 54 Days
Remarks : Based on data from similar materials

Butan-1-ol:

Species : Rat
NOAEL : 125 mg/kg
Application Route : Ingestion
Exposure time : 13 Weeks

Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates:

Species : Rat

ZINC SPRAY LIGHT PERFECT

Version	Revision Date:	SDS Number:	Date of last issue: 23.12.2020
4.0	22.09.2021	3720177-00006	Date of first issue: 18.07.2012

NOAEL	:	> 100 mg/kg
Application Route	:	Ingestion
Exposure time	:	90 Days
Method	:	OECD Test Guideline 408
Remarks	:	Based on data from similar materials

Aspiration toxicity

Not classified based on available information.

Components:**|| Xylene:**

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Acetone:

The substance or mixture causes concern owing to the assumption that it causes a human aspiration toxicity hazard.

|| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Butan-1-ol:

The substance or mixture causes concern owing to the assumption that it causes a human aspiration toxicity hazard.

Experience with human exposure**Components:****Ethyl acetate:**

Eye contact	:	Target Organs: Eye Symptoms: Irritation
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Section 12: Ecological information**Ecotoxicity****Components:****Dimethyl ether:**

Toxicity to fish	:	LC50 (Poecilia reticulata (guppy)): > 4,100 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 4,400 mg/l Exposure time: 48 h
Toxicity to microorganisms	:	EC10 (Pseudomonas putida): > 1,600 mg/l

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

Xylene:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 13.5 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1 - 10 mg/l
Exposure time: 24 h
Method: OECD Test Guideline 202
Remarks: Based on data from similar materials
- Toxicity to algae/aquatic plants : EC50 (Skeletonema costatum (marine diatom)): 10 mg/l
Exposure time: 72 h
- Toxicity to fish (Chronic toxicity) : NOEC (Danio rerio (zebra fish)): > 0.1 - < 1 mg/l
Exposure time: 35 d
Method: OECD Test Guideline 210
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EL10 (Daphnia magna (Water flea)): > 1 - 10 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211
Remarks: Based on data from similar materials
- Toxicity to microorganisms : NOEC: > 100 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
Remarks: Based on data from similar materials

Ethyl acetate:

- Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 220 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 3,090 mg/l
Exposure time: 24 h
Method: DIN 38412
- Toxicity to algae/aquatic plants : NOEC (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
- Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): > 1 - 9.65 mg/l
Exposure time: 32 d
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 2.4 mg/l
Exposure time: 24 d
- Toxicity to microorganisms : EC10 (Photobacterium phosphoreum): 1,650 mg/l
Exposure time: 0.25 h

n-Butyl acetate:

- Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 18 mg/l
Exposure time: 96 h

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia sp. (water flea)): 44 mg/l
Exposure time: 48 h
- Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 397 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials
- NOEC (Pseudokirchneriella subcapitata (green algae)): 196 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 23.2 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211
Remarks: Based on data from similar materials
- Toxicity to microorganisms : IC50 (Tetrahymena pyriformis): 356 mg/l
Exposure time: 40 h

Acetone:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 5,540 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia pulex (Water flea)): 8,800 mg/l
Exposure time: 48 h
- Toxicity to algae/aquatic plants : NOEC (Pseudokirchneriella subcapitata (green algae)): 7,000 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): \geq 79 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211
- Toxicity to microorganisms : EC50: 61,150 mg/l
Exposure time: 30 min
Method: ISO 8192

Aluminium:

- Toxicity to fish : NOEC (Salmo trutta (brown trout)): $>$ 80 μ g/l
Exposure time: 96 h
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : NOEC (Daphnia magna (Water flea)): $>$ 0.135 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Ecotoxicology Assessment

ZINC SPRAY LIGHT PERFECT

Version	Revision Date:	SDS Number:	Date of last issue: 23.12.2020
4.0	22.09.2021	3720177-00006	Date of first issue: 18.07.2012

Chronic aquatic toxicity : No toxicity at the limit of solubility

|| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): > 1,000 mg/l
 Exposure time: 96 h
 Test substance: Water Accommodated Fraction
 Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 1,000 mg/l
 Exposure time: 48 h
 Test substance: Water Accommodated Fraction
 Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EL50 (Pseudokirchneriella subcapitata (green algae)): > 1,000 mg/l
 Exposure time: 72 h
 Test substance: Water Accommodated Fraction
 Method: OECD Test Guideline 201
 Remarks: Based on data from similar materials

NOELR (Pseudokirchneriella subcapitata (green algae)): 1,000 mg/l
 Exposure time: 72 h
 Test substance: Water Accommodated Fraction
 Method: OECD Test Guideline 201
 Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR (Daphnia magna (Water flea)): > 1 mg/l
 Exposure time: 21 d
 Method: OECD Test Guideline 211
 Remarks: Based on data from similar materials

Butan-1-ol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 1,376 mg/l
 Exposure time: 96 h
 Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1,328 mg/l
 Exposure time: 48 h
 Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 225 mg/l
 Exposure time: 96 h
 Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 4.1 mg/l
 Exposure time: 21 d
 Method: OECD Test Guideline 211

Toxicity to microorganisms : EC50 (Pseudomonas putida): 4,390 mg/l
 Exposure time: 17 h

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates:

- Toxicity to fish : LC50 (Danio rerio (zebra fish)): 13.8 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.036 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
- Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 0.14 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
- EC10 (Pseudokirchneriella subcapitata (green algae)): 0.01 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
- Toxicity to fish (Chronic toxicity) : NOEC (Pimephales promelas (fathead minnow)): > 0.01 - 0.1 mg/l
Exposure time: 28 d
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): > 0.001 - 0.01 mg/l
Exposure time: 21 d
Remarks: Based on data from similar materials
- Toxicity to microorganisms : EC10: 9 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

Persistence and degradability**Components:****Dimethyl ether:**

- Biodegradability : Result: Not readily biodegradable.
Biodegradation: 5 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Xylene:

- Biodegradability : Result: Readily biodegradable.
Biodegradation: > 70 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Remarks: Based on data from similar materials

Ethyl acetate:

- Biodegradability : Result: Readily biodegradable.
Biodegradation: 69 %
Exposure time: 20 d

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

n-Butyl acetate:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 83 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Acetone:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 91 %
Exposure time: 28 d

|| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 80 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Remarks: Based on data from similar materials

Butan-1-ol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 92 %
Exposure time: 20 d

Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 67.77 %
Exposure time: 28 d
Method: OECD Test Guideline 310

Bioaccumulative potential**Components:****Dimethyl ether:**

Partition coefficient: n-octanol/water : log Pow: 0.2

|| Xylene:

Partition coefficient: n-octanol/water : log Pow: 3.16
Remarks: Calculation

Ethyl acetate:

Bioaccumulation : Species: Leuciscus idus (Golden orfe)
Bioconcentration factor (BCF): 30

Partition coefficient: n-octanol/water : log Pow: 0.68

ZINC SPRAY LIGHT PERFECT

Version 4.0 Revision Date: 22.09.2021 SDS Number: 3720177-00006 Date of last issue: 23.12.2020
Date of first issue: 18.07.2012

n-Butyl acetate:

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

Acetone:

Partition coefficient: n-octanol/water : log Pow: -0.27 - -0.23

Butan-1-ol:

Partition coefficient: n-octanol/water : log Pow: 1

Quaternary ammonium compounds, coco alkylethyldimethyl, Et sulfates:

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): < 500
Remarks: Based on data from similar materials

Partition coefficient: n-octanol/water : log Pow: 3.26
Remarks: Calculation

Mobility in soil

No data available

Other adverse effects

No data available

Section 13: Disposal considerations**Disposal methods**

- Waste from residues : Dispose of in accordance with local regulations.
- Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
Empty containers retain residue and can be dangerous.
Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death.
If not otherwise specified: Dispose of as unused product.
Please ensure aerosol cans are sprayed completely empty (including propellant)
-

Section 14: Transport information**International Regulations****UNRTDG**

UN number : UN 1950
Proper shipping name : AEROSOLS
Class : 2.1
Packing group : Not assigned by regulation

ZINC SPRAY LIGHT PERFECT

Version	Revision Date:	SDS Number:	Date of last issue: 23.12.2020
4.0	22.09.2021	3720177-00006	Date of first issue: 18.07.2012

Labels : 2.1

IATA-DGR

UN/ID No. : UN 1950
Proper shipping name : Aerosols, flammable
Class : 2.1
Packing group : Not assigned by regulation
Labels : Flammable Gas
Packing instruction (cargo aircraft) : 203
Packing instruction (passenger aircraft) : 203

IMDG-Code

UN number : UN 1950
Proper shipping name : AEROSOLS
(Zinc, Quaternary ammonium compounds, coco alkylethyl-dimethyl, Et sulfates)
Class : 2.1
Packing group : Not assigned by regulation
Labels : 2.1
EmS Code : F-D, S-U
Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations**NZS 5433**

UN number : UN 1950
Proper shipping name : AEROSOLS
Class : 2.1
Packing group : Not assigned by regulation
Labels : 2.1
Hazchem Code : 2YE

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

Section 15: Regulatory information**Safety, health and environmental regulations/legislation specific for the substance or mixture****HSNO Approval Number**

HSR002515 Aerosols Flammable Group Standard 2017

HSW Controls

Certified handler certificate not required.

Tracking hazardous substance not required.

Refer to the Health and Safety at Work (Hazardous Substances) Regulations 2017, for further information.

ZINC SPRAY LIGHT PERFECT

Version	Revision Date:	SDS Number:	Date of last issue: 23.12.2020
4.0	22.09.2021	3720177-00006	Date of first issue: 18.07.2012

The components of this product are reported in the following inventories:

NZIoC : All ingredients listed or exempt.

Section 16: Other information

Further information

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Date format : dd.mm.yyyy

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
 ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)
 NZ BEI : New Zealand. Biological Exposure Indices
 NZ OEL : New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

ACGIH / TWA : 8-hour, time-weighted average
 ACGIH / STEL : Short-term exposure limit
 NZ OEL / WES-TWA : Workplace Exposure Standard - Time Weighted average
 NZ OEL / WES-STEEL : Workplace Exposure Standard - Short-Term Exposure Limit
 NZ OEL / WES-Ceiling : Workplace Exposure Standard - Ceiling

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; 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; KECl - 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; 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

ZINC SPRAY LIGHT PERFECT

Version	Revision Date:	SDS Number:	Date of last issue: 23.12.2020
4.0	22.09.2021	3720177-00006	Date of first issue: 18.07.2012

tion, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

NZ / EN