SAFETY DATA SHEET according to regulation 1907/2006

Product name: Zinc Spray Perfect Bright

Creation date: **08.11.2022**, **Revision:** **08.11.2022**, **version:** **1.0**

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name **Zinc Spray Perfect Bright**

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

Relevant identified uses

Paint.

Uses advised against

Do not use for purposes other than those prescribed.

· ***1.3. Manufacturer/Supplier:***

WINKEL GmbH
Lisztstraße 1
53881 Euskirchen - Germany
www.winkelgroup.de

·*Tel.: +49 2251 77 69 400-401*
·*Fax: +49 2251 77 69 402*

· ***Informing department:*** *info@winkelgroup.de*

· ***1.4 Emergency telephone number:***
Information during office hours: +49 2251 77 69 400-401

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Aerosol 1; H222 Extremely flammable aerosol.
Aerosol 1; H229.1 Pressurised container: May burst if heated.
Asp. Tox. 1; H304 May be fatal if swallowed and enters airways.
Skin Irrit. 2; H315 Causes skin irritation.
Eye Irrit. 2; H319 Causes serious eye irritation.
STOT SE 3; H336 May cause drowsiness or dizziness.
STOT RE 2; H373 May cause damage to organs through prolonged or repeated exposure.
Aquatic Chronic 3; H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

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

Signal word: Danger

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P273 Avoid release to the environment.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P410 + P412 Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122°F.
P501 Dispose of contents/container in accordance with national regulation.

Contains:
acetone
xylene
Aromatic hydrocarbons, C8
reaction mass of ethylbenzene and m-xylene and p-xylene

2.3 Other hazards

Vapors can form an explosive mixture with air. 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.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

For mixtures see 3.2.

3.2 Mixtures

Name	CAS EC Index Reach	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Conc. Limits	Notes for substances
acetone	67-64-1 200-662-2 606-001-00-8 01-2119471330-49	25-50	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066	/	/
isobutane	75-28-5 200-857-2 - 01-2119485395-27	25-50	Flam. Gas 1; H220 Press. Gas; H280	/	/
propane	74-98-6 200-827-9 - 01-2119485394-21	10-25	Flam. Gas 1; H220 Press. Gas; H280	/	/

n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	10-25	Flam. Liq. 3; H226 STOT SE 3; H336 EUH066	/	/
xylene	1330-20-7 215-535-7 601-022-00-9 01-2119488216-32	<= 7	Flam. Liq. 3; H226 Asp. Tox. 1; H304 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332 STOT SE 3; H335 STOT RE 2; H373 Aquatic Chronic 3; H412	/	C
Aromatic hydrocarbons, C8	90989-38-1 292-694-9 648-010-00-X 01-2119486136-34	<= 7	Flam. Liq. 3; H226 Asp. Tox. 1; H304 Acute Tox. 4; H312 Skin Irrit. 2; H315 Acute Tox. 4; H332	/	J
reaction mass of ethylbenzene and m-xylene and p-xylene	- 905-562-9 - 01-2119555267-33	<= 7	Flam. Liq. 3; H226 Asp. Tox. 1; H304 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332 STOT SE 3; H335 STOT RE 2; H373	/	/
hydrocarbons, C9, aromatics	- 918-668-5 - 01-2119455851-35	<2,5	Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H335 STOT SE 3; H336 Aquatic Chronic 2; H411 EUH066	/	/
xylene, mixture of isomers	1330-20-7 215-535-7 601-022-00-9	<2,5	Flam. Liq. 3; H226 Acute Tox. 4; H312 Skin Irrit. 2; H315 Acute Tox. 4; H332	/	/
ethylbenzene	100-41-4 202-849-4 601-023-00-4	<= 2,1	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Acute Tox. 4; H332 STOT RE 2; H373	/	/

Notes for substances

C	Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.
J	The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes.

SECTION 4: FIRST AID MEASURES

4.1 First aid measures

General notes

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency. Wash contaminated clothing with water before removing or use gloves. No action shall be taken involving any personal risk or without suitable training. When it is suspected, that there may still be harmful vapours/fumes present in the air, respiratory protection (mask; self contained breathing apparatus) must be used.

Following inhalation

Remove patient to fresh air - move out of dangerous area. If symptoms occur, seek medical advice. Keep at rest in a

position comfortable for breathing. Obtain professional medical help! If breathing is irregular or respiratory arrest occurs provide artificial respiration. Seek medical help immediately. In case of unconsciousness bring patient into stable side position and seek medical attention.

Following skin contact

Take off all contaminated clothing. Wash affected skin areas thoroughly with plenty of water and soap. If symptoms develop and persist, seek medical attention. Wash contaminated clothes and shoes before reuse.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. If irritation persists, seek professional medical attention.

Following ingestion

Not likely. Accidental ingestion: Do not induce vomiting! Immediately consult a doctor. Show the physician the safety data sheet or label. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation

Vapours may cause drowsiness and dizziness. Symptoms include: headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, unconsciousness. Excessive exposure to spray mist, fog, or vapours may cause respiratory irritation. Coughing, sneezing, nasal discharge, labored breathing. At very high concentrations can displace the normal air and cause suffocation from lack of oxygen.

Following skin contact

Irritating to the skin. Itching, redness, pain.

Following eye contact

Strongly irritates the eyes. Redness, tearing, pain.

Following ingestion

Ingestion is unlikely because it is an aerosol. Accidental ingestion: May cause abdominal discomfort. May cause nausea/vomiting and diarrhea. Irritates mucous membranes in the mouth, throat, esophagus and in gastrointestinal area. May be fatal if swallowed and enters airways.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Full water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of a fire toxic gases can be generated; do not inhale gases/smoke. In the event of fire the following can be generated: carbon monoxide (CO), carbon dioxide (CO_2).

5.3 Advice for firefighters

Protective actions

No action shall be taken involving any personal risk or without suitable training. In case of fire or heating do not breathe fumes/vapours. Prolonged heating can cause an explosion. In case of fire aerosols can explode and be propelled to considerable distances in different directions. Cool the endangered containers with water spray. Move undamaged containers from immediate hazard area if it can be done safely.

Special protective equipment for fire-fighters

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137).

Additional information

Contaminated extinguishing agents must be disposed of in accordance with the regulations; do not allow to reach the sewage system.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment

Use personal protective equipment (Section 8).

Precautionary measures

Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking! Take precautionary measures against static discharges.

Emergency procedures

No action shall be taken involving any personal risk or without suitable training. Prevent access to unauthorised personnel. Prevent access to unprotected personnel. Avoid contact with skin, eyes and clothing. Do not breathe vapour or mist.

For emergency responders

Use personal protective equipment. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. If accidental large entry into water or ground occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

For containment

Stem the spill if this does not pose risks.

For cleaning up

Use only explosion-proof instruments and equipment. Use spark-proof tools. Collect the spray cans and hand them over to an authorized waste disposal contractor. Release of liquid because of damaged aerosol can (release of large quantities): In case of bigger spill, dam the spillage, pump the liquid into appropriate labelled containers, absorb a residue with absorbent material and dispose of according to local regulations. Do not absorb spillage with sawdust or other combustible material. Dispose in accordance with applicable regulations (see Section 13). Clean residue from spill site.

OTHER INFORMATION

No information.

6.4 Reference to other sections

See also sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

Prevent the formation of flammable or explosive concentrations of vapours in the air. Ensure adequate ventilation. Take precautionary measures against static discharges. Keep away from sources of ignition - no smoking. Use spark-proof

tools. Pressurized container; protect from sunlight and do not expose to tempratures exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or incandescent material. Use explosively safe equipment (ventilators, lighting, working instruments and devices,...);

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

Avoid release to the environment.

Other measures

No information.

Advice on general occupational hygiene

Handle in accordance with good industrial hygiene and safety procedures. Consider measures required in Section 8 of this safety data sheet. Use personal protective equipment. In case of insufficient ventilation, wear suitable respiratory protection equipment. Refer to instructions on label and regulations for safety and health at work. Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Avoid contact with skin, eyes and clothes. Do not breathe vapours/mist.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Store in accordance with local regulations. Keep out of the reach of children. Keep in well closed containers. Keep in cool and well ventilated area. Protect from open fire, heat and direct sunlight. Keep away from sources of ignition. Keep away from food, drink and animal feeding stuffs. Keep away from oxidising substances. Do not store with combustible materials. Keep away from self-igniting materials. Keep away from bases. Store away from strong acids.

Packaging materials

The original container of producer.

Requirements for storage rooms and vessels

Do not store in unlabelled containers.

Storage class

No information.

Further information on storage conditions

No information.

7.3 Specific end use(s)

Recommendations

No information.

Industrial sector specific solutions

No information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

Name	mg/m^3	ml/m^3	Short-term value mg/m^3	Short-term value ml/m^3	Remark	Biological Tolerance Values
Aromatics	500	/	/	/	/	/
Ethylbenzene (100-41-4)	441	100	552	125	Sk	/

Xylene, o-,m-,p- or mixed isomers (1330-20-7)	220	50	441	100	Sk, BMGV	650 mmol methyl hippuric acid/mol creatinine in urine - Post shift 650 mmol methyl hippuric acid/mol creatinine in urine - Post shift 650 mmol methyl hippuric acid/mol creatinine in urine - Post shift
Acetone (67-64-1)	1210	500	3620	1500	/	/
Butyl acetate (123-86-4)	724	150	966	200	/	/

Information on monitoring procedures

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

DNEL/DMEL values

For product

No information.

For components

Name	Type	Exposure route	exp. frequency	Remark	value
acetone	Worker	inhalation	long term systemic effects	/	1210 mg/m³
acetone	Worker	inhalation	short term local effects	/	2420 mg/m³
acetone	Worker	dermal	long term systemic effects	/	186 mg/kg bw/day
acetone	Consumer	inhalation	long term systemic effects	/	200 mg/m³
acetone	Consumer	dermal	long term systemic effects	/	62 mg/kg bw/day
acetone	Consumer	oral	long term systemic effects	/	62 mg/kg bw/day
n-butyl acetate	Worker	inhalation	long term systemic effects	/	300 mg/m³
n-butyl acetate	Worker	inhalation	short term systemic effects	/	600 mg/m³
n-butyl acetate	Worker	inhalation	long term local effects	/	300 mg/m³
n-butyl acetate	Worker	inhalation	short term local effects	/	600 mg/m³
n-butyl acetate	Worker	dermal	long term systemic effects	/	11 mg/kg bw/day
n-butyl acetate	Worker	dermal	short term systemic effects	/	11 mg/kg bw/day
n-butyl acetate	Consumer	inhalation	long term systemic effects	/	35.7 mg/m³
n-butyl acetate	Consumer	inhalation	short term systemic effects	/	300 mg/m³
n-butyl acetate	Consumer	inhalation	long term local effects	/	35.7 mg/m³
n-butyl acetate	Consumer	inhalation	short term local effects	/	300 mg/m³
n-butyl acetate	Consumer	dermal	long term systemic effects	/	6 mg/kg bw/day
n-butyl acetate	Consumer	dermal	short term systemic effects	/	6 mg/kg bw/day
n-butyl acetate	Consumer	oral	long term systemic effects	/	2 mg/kg bw/day
n-butyl acetate	Consumer	oral	short term systemic effects	/	2 mg/kg bw/day

PNEC values

For product

No information.

For components

Name	Exposure route	Remark	value
acetone	fresh water	/	10.6 mg/L
acetone	water, intermittent release	fresh water	21 mg/L
acetone	marine water	/	1.06 mg/L
acetone	water treatment plant	/	100 mg/L
acetone	fresh water sediment	dry weight	30.4 mg/kg
acetone	marine water sediment	dry weight	3.04 mg/kg
acetone	soil	dry weight	29.5 mg/kg
n-butyl acetate	fresh water	/	0.18 mg/L
n-butyl acetate	water, intermittent release	/	0.36 mg/L
n-butyl acetate	marine water	/	0.018 mg/L
n-butyl acetate	water treatment plant	/	35.6 mg/L
n-butyl acetate	fresh water sediment	dry weight	0.981 mg/kg
n-butyl acetate	marine water sediment	dry weight	0.098 mg/kg
n-butyl acetate	soil	dry weight	0.09 mg/kg

8.2 Exposure controls

Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Avoid contact with skin, eyes and clothes. Do not breathe vapours/aerosols. Keep away from foodstuffs, beverages and feed. Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

If this product contains ingredients with exposure limits, personal, workplace atmosphere monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protection.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration.

Personal protective equipment

Eye and face protection

Safety glasses with side protection (EN ISO 16321-1:2022).

Hand protection

Protective gloves (EN 374). The product consists of various substances, therefore the resistance of gloves can not be calculated and has to be tested before use.

Appropriate materials

Skin protection

Cotton protective clothing and shoes that cover the entire foot (EN ISO 20345). Protective antistatic clothing EN 1149 (1:2006, 2:1998 and 3:2004, 5:2008), protective antistatic shoes (EN 20345:2012). Choose body protection according to the activity and possible exposure.

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. If the concentration limit values are exceeded, it is necessary to wear appropriate respiratory protection. Wear suitable protective breathing mask (EN 136) with filter A2-P2 (EN 14387). For dust/gas/ vapor concentrations above the applicable filter limit, in case of oxygen concentrations below 17% or in vague conditions, autonomous self-contained breathing apparatus should be used, according to standard EN 137, EN 138.

Thermal hazards

No information.

Environmental exposure controls

Substance/mixture related measures to prevent exposure

No information.

Instruction measures to prevent exposure
No information.

Organisational measures to prevent exposure
No information.

Technical measures to prevent exposure
Prevent exposure in the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state
liquid - aerosol

Colour
silver

Odour
characteristic

Important health, safety and environmental information

Odour threshold	No information.
pH	6 – 9 , conc. 100 %
Melting point/Freezing point	No information.
Initial boiling point/boiling range	No information.
Flash point	< 0 °C
Evaporation rate	No information.
Flammability (solid, gas)	No information.
Explosion limits (vol%)	1.86 – 9.5 vol % (propellant) 1 – 7 vol % (Xylene) 2.6 – 13 vol % (acetone)
Vapour pressure	8 hPa
Vapour density	No information.
Density / weight	Density: 0.876 g/cm^3 (data refers to the liquid portion of the product)
Solubility	Water: very low solubility
Partition coefficient	No information.
Auto-ignition temperature	No information.
Decomposition temperature	No information.
Viscosity	No information.
Explosive properties	Product is not explosive. However, formation of explosive air/ vapour mixtures are possible.
Oxidising properties	No information.

9.2 OTHER INFORMATION

Weight organic solvents	662 g/l (VOC) 92 % (VOC)

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions. Vapours / aerosols and propellants may form explosive mixture with air.

10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3 Possibility of hazardous reactions

The product is stable under recommended storage and handling conditions.

10.4 Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not expose to heat and direct sunlight. Protect from heat, direct sunlight, open fire, sparks. Avoid contact with incompatible materials.

10.5 Incompatible materials

Oxidants. Bases.
Strong acids.

10.6 Hazardous decomposition products

In case of fire/explosion vapours/gases that pose a health hazard are released.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

(a) Acute toxicity

For product

Exposure route	Type	Species	Time	value	Method	Remark
inhalation (dusts/mists)	ATE	/	/	> 5 mg/l	/	/
dermal	ATE	/	/	> 2000 mg/kg	/	/

For components

Name	Exposure route	Type	Species	Time	value	Method	Remark
acetone	inhalation (vapors)	LC_{50}	rat	4 h	76 mg/l	/	/
acetone	oral	LD_{50}	rabbit	/	7400 mg/kg	/	/
acetone	dermal	LD_{50}	rat	/	> 15800 mg/kg bw	/	/
n-butyl acetate	oral	LD_{50}	rat	/	13100 mg/kg	/	/
n-butyl acetate	dermal	LD_{50}	rabbit	/	> 5000 mg/kg	/	/
n-butyl acetate	inhalation	LC_{50}	rat	4 h	> 21 mg/l	/	/
xylene	inhalation (vapours)	ATE	/	/	11 mg/l	/	/
xylene	dermal	ATE	/	/	1100 mg/kg	/	/
xylene	oral	LD_{50}	/	/	2000 - 5000 mg/kg	/	/
xylene	inhalation	LC50	/	/	10 - 20 mg/l	/	/
hydrocarbons, C9, aromatics	oral	LD_{50}	rat	/	> 2000 mg/kg	/	/
hydrocarbons, C9, aromatics	dermal	LD_{50}	rat	/	> 2000 mg/kg	/	/

xylene, mixture of isomers	oral	LD_{50}	rat	/	4300 mg/kg	/	/
xylene, mixture of isomers	inhalation	LC50	rat	4 h	21.7 mg/l	/	/
xylene, mixture of isomers	dermal	LD50	rabbit	/	2000 mg/kg	/	/
ethylbenzene	oral	LD_{50}	rat	/	3500 mg/kg	/	/
ethylbenzene	dermal	LD_{50}	rat	/	15400 mg/kg	/	/
ethylbenzene	inhalation	LC_{50}	rat	4 h	17.2 mg/l	/	/

Additional information

The product is not classified for acute toxicity.

(b) Skin corrosion/irritation

No information.

Additional information

Causes skin irritation.

(c) Serious eye damage/irritation

For components

Name	Exposure route	Species	Time	result	Method	Remark
acetone	/	/	/	Strong eye irritant.	/	/

Additional information

Causes serious eye irritation.

(d) Respiratory or skin sensitisation

No information.

Additional information

The product is not classified as sensitising.

(e) (Germ cell) mutagenicity

No information.

(f) Carcinogenicity

No information.

(g) Reproductive toxicity

No information.

Summary of evaluation of the CMR properties

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

(h) STOT-single exposure

For components

Name	Exposure route	Type	Species	Time	Exposure	organ	value	result	Method	Remark
acetone	inhalation	-	/	/	/	/	/	May cause drowsiness or dizziness.	/	/

Additional information

May cause drowsiness or dizziness.

(i) STOT-repeated exposure

For components

Name	Exposure route	Type	Species	Time	Exposure	organ	value	result	Method	Remark
acetone	oral	LOAEL	rat	/	/	/	1700 mg/kg bw/day	/	/	/
acetone	inhalation	NOAEC	rat	/	/	/	22.5 mg/L	/	/	/

Additional information

May cause damage to organs through prolonged or repeated exposure.

(j) Aspiration hazard

No information.

Additional information

May be fatal if swallowed and enters airways.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute (short-term) toxicity

For components

Name	Type	value	Exposure time	Species	organism	Method	Remark
acetone	LC_{50}	5540 mg/L	96 h	fish	*Oncorhynchus mykiss*	/	/
acetone	EC_{50}	8800 mg/L	48 h	crustacea	*Daphnia pulex*	/	/
acetone	LC_{50}	11000 mg/L	96 h	fish	*Alburnus alburnus*	/	/
acetone	EC_{50}	2100 mg/L	24 h	crustacea	*Artemisia salina*	/	/
xylene	LC_{50}	26.7 mg/L	96 h	fish	*Pimephales promelas*	/	/
xylene	LC_{50}	16.9 mg/L	96 h	fish	*Carassius auratus*	/	/
xylene	LC_{50}	20.9 mg/L	96 h	fish	*Lepomis macrochirus*	/	/
xylene	LC_{50}	34.7 mg/L	96 h	fish	*Poecilia reticulata*	/	/
xylene	EC_{50}	1 mg/L	48 h	crustacea	*Daphnia magna*	/	/
xylene	IC_{50}	2.2 mg/L	72 h	algae	/	/	/
Aromatic hydrocarbons, C8	LC_{50}	2.6 mg/L	96 h	fish	/	/	/
Aromatic hydrocarbons, C8	EC_{50}	1 mg/L	48 h	*Daphnia*	*Daphnia magna*	/	/
Aromatic hydrocarbons, C8	LC_{50}	2.2 mg/L	72 h	algae	/	/	/
reaction mass of ethylbenzene and m-xylene and p-xylene	LC_{50}	> 1.3 mg/L	96 h	fish	/	/	/
hydrocarbons, C9, aromatics	EC_{50}	1 - 10 mg/L	/	crustacea	/	/	/
xylene, mixture of isomers	EC_{50}	165 mg/L	/	crustacea	*Daphnia*	/	/

Chronic (long-term) toxicity

For components

Name	Type	value	Exposure time	Species	organism	Method	Remark
acetone	NOEC	530 mg/l	/	algae	*Microcystis aeruginosa*	/	/
acetone	NOEC	430 mg/l	/	algae	*Prorocentrum minimum*	/	/
xylene	NOEC	> 1.3 mg/l	56 days	fish	*Oncorhynchus mykiss*	/	/
xylene	NOEC	0.96 mg/l	7 days	crustacea	*Daphnia*	/	/

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination

For components

Name	Environment	Type / Method	Half Time	Evaluation	Method	Remark
xylene	Air	/	/	In the air it is quickly oxidized by photochemical reaction.	/	/

Biodegradation

For components

Name	Type	Rate	Time	Evaluation	Method	Remark
acetone	aerobic	/	/	readily biodegradable	/	/

12.3 Bioaccumulative potential

Partition coefficient

For components

Name	Media	value	Temperature °C	pH	Concentration	Method
acetone	octanol-water (log Kow)	-0.24	/	/	/	/
Aromatic hydrocarbons, C8	Log Pow	> 3	/	/	/	/

Bioconcentration factor (BCF)

For components

Name	Species	organism	value	Duration	Evaluation	Method	Remark
xylene	BCF	/	25.9	/	/	/	/
Aromatic hydrocarbons, C8	BCF	/	25.9	/	/	/	/

12.4 Mobility in soil

Known or predicted distribution to environmental compartments

No information.

Surface tension

No information.

Adsorption/Desorption

For components

Name	Type	Criterion	value	Evaluation	Method	Remark
xylene	Soil	/	/	Adsorbs into the soil.	/	/

12.5 Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substances in percentages greater than 0.1%.

12.6 Other adverse effects

No information.

12.7 Additional information

For product

Harmful to aquatic life with long lasting effects. Avoid release to the environment. Water hazard class (WGK): 3 (Self-assessment), very hazardous for water.

For components

acetone

Bioaccumulation is not expected. This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB). Mobile in soil.

xylene

Partly soluble in water. The substance is highly volatile. Low bioaccumulation potential.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product / Packaging disposal

Waste chemical

Avoid release to the environment. Product and container must be disposed of safely. Dispose of in accordance with applicable waste disposal regulation. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste. Waste codes should be assigned by the user based on the application for which the product was used.

Waste codes / waste designations according to LoW

16 05 04* - gases in pressure containers (including halons) containing dangerous substances

Packaging

Uncleaned containers should not be perforated, cut or welded. Pressurized container. Do not pierce or burn, even after use. Dispose of in accordance with applicable waste disposal regulation. Deliver completely emptied containers to approved waste disposal authorities. Uncleaned containers are classified as hazardous waste - they should be handled in the same manner as the contents.

Waste codes / waste designations according to LoW

15 01 11* - metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers

Waste treatment-relevant information

No information.

Sewage disposal-relevant information

No information.

Other disposal recommendations

No information.

SECTION 14: TRANSPORT INFORMATION

ADR/RID	IMDG	IATA	ADN
14.1 UN number			
UN 1950	UN 1950	UN 1950	UN 1950
14.2 UN proper shipping name			
AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS
14.3 Transport hazard class(es)			
2	2	2	2
			
14.4 Packing group			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
14.5 Environmental hazards			
NO	NO	NO	NO
14.6 Special precautions for user			

Limited quantities 1 L Special provisions 190, 327, 344, 625 Packing Instructions P207, LP200 Special packing provisions PP87, RR6, L2 Transport category 2 Tunnel restriction code (D)	Limited quantities 1 L EmS F-D, S-U Flash point 0 °C	Limited Quantity, Packing Instructions (Ltd Qty, Pkg Inst) Y203 Limited Quantity, Maximum Net Quantity/Package (Ltd Qty, Max Net Qty/Pkg) 30 kg G Packing Instructions (Pkg Inst) 203 Maximum Net Quantity/Package (Max Net Qty/Pkg) 25 kg Special provisions A145, A167, A802	Limited quantities 1 L
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code			
Goods may not be carried in bulk in bulk containers, containers or vehicles.	Goods may not be carried in bulk in bulk containers, containers or vehicles.	Not given/not applicable	Not given/not applicable

SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2015/830)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)
not applicable

Regulation EC 648/2004 on detergents
No information.

Special instructions
- Seveso III, P3a: flammable aerosols.
REGULATION (EU) 2019/1148 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2019 on the marketing and use of explosives precursors:
ANNEX II REPORTABLE EXPLOSIVES PRECURSORS:
Acetone (CAS RN 67-64-1). All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

Indication of changes
No information.

Key literature references and sources for data
No information.

Abbreviations and acronyms
ATE - Acute Toxicity Estimate
ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CEN - European Committee for Standardisation
C&L - Classification and Labelling
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

CAS# - Chemical Abstracts Service number
CMR - Carcinogen, Mutagen, or Reproductive Toxicant
CSA - Chemical Safety Assessment
CSR - Chemical Safety Report
DMEL - Derived Minimal Effect Level
DNEL - Derived No Effect Level
DPD - Dangerous Preparations Directive 1999/45/EC
DSD - Dangerous Substances Directive 67/548/EEC
DU - Downstream User
EC - European Community
ECHA - European Chemicals Agency
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
EEC - European Economic Community
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
EN - European Standard
EQS - Environmental Quality Standard
EU - European Union
Euphrac - European Phrase Catalogue
EWC - European Waste Catalogue (replaced by LoW – see below)
GES - Generic Exposure Scenario
GHS - Globally Harmonized System
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
IMSBC - International Maritime Solid Bulk Cargoes
IT - Information Technology
IUCLID - International Uniform Chemical Information Database
IUPAC - International Union for Pure Applied Chemistry
JRC - Joint Research Centre
Kow - octanol-water partition coefficient
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
LE - Legal Entity
LoW - List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm)
LR - Lead Registrant
M/I - Manufacturer / Importer
MS - Member States
MSDS - Material Safety Data Sheet
OC - Operational Conditions
OECD - Organization for Economic Co-operation and Development
OEL - Occupational Exposure Limit
OJ - Official Journal
OR - Only Representative
OSHA - European Agency for Safety and Health at work
PBT - Persistent, Bioaccumulative and Toxic substance
PEC - Predicted Effect Concentration
PNEC(s) - Predicted No Effect Concentration(s)
PPE - Personal Protection Equipment
(Q)SAR - Qualitative Structure Activity Relationship
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP - REACH Implementation Project
RMM - Risk Management Measure
SCBA - Self-Contained Breathing Apparatus
SDS - Safety data sheet
SIEF - Substance Information Exchange Forum
SME - Small and Medium sized Enterprises
STOT - Specific Target Organ Toxicity
(STOT) RE - Repeated Exposure
(STOT) SE - Single Exposure
SVHC - Substances of Very High Concern
UN - United Nations

vPvB - Very Persistent and Very Bioaccumulative

List of relevant H phrases

H220 Extremely flammable gas.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H280 Contains gas under pressure; may explode if heated.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.