

SAFETY DATA SHEET according to regulation 1907/2006

silco[®]**Product name: 6040 B4 Flexplast****Creation date: 25.03.2021, Revision: 26.11.2021, version: 3.1**

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

1.1 Product identifier

Product name

6040 B4 Flexplast

UFI:

3KQH-POFF-9004-78FT

<https://my.chemius.net/p/9Dy0yU/en/pd/e1>

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

Relevant identified uses

No information.

Uses advised against

No information.

1.3 Details of the supplier of the safety data sheet

Supplier

SILCO d.o.o.

Sentrupert 5a

3303 Gomilsko, Slovenia

+386 3 703 3180

n.cvilak@silco.si

Manufacturer

SILCO d.o.o.

Sentrupert 5a

3303 Gomilsko, Slovenia

00386 3 703 3180

n.cvilak@silco.si

1.4 Emergency Telephone Number

Emergency

National Poisons Information Centre: (01) 809 2166

Supplier

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SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Flam. Liq. 3; H226 Flammable liquid and vapour.

Skin Irrit. 2; H315 Causes skin irritation.

Skin Sens. 1; H317 May cause an allergic skin reaction.

Eye Irrit. 2; H319 Causes serious eye irritation.

Repr. 2; H361d Suspected of damaging the unborn child.

STOT RE 1; H372 Causes damage to organs (hearing organs, hearing organs) through prolonged or repeated exposure.

2.2 Label elements

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

**Signal word: Danger**

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H361d Suspected of damaging the unborn child.

H372 Causes damage to organs (hearing organs, hearing organs) through prolonged or repeated exposure.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P303 + P361 + P533 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P403 + P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with national regulation.

Contains:

styrene

maleic anhydride

1,4-naftokinon

2.3 Other hazards

No information.

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
styrene	100-42-5 202-851-5 601-026-00-0	10-15	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332 Repr. 2; H361d STOT RE 1; H372	/	D
Xylene	1330-20-7 215-535-7 601-022-00-9	1-2.5	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	/	C
titanium dioxide	13463-67-7 236-675-5 -	1-2.5	/	/	/

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.
D	Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words "non-stabilised".

SECTION 4: FIRST AID MEASURES

4.1 First aid measures

General notes

Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency. When in doubt or if feeling unwell seek medical assistance. Show the safety data sheet and label to the physician. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. 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. Wash contaminated clothing with water before removing or use gloves.

Following inhalation

Remove patient to fresh air - move out of dangerous area. In case of unconsciousness bring patient into stable side position and seek medical attention. If breathing is irregular or respiratory arrest occurs provide artificial respiration. Keep at rest in a position comfortable for breathing. Seek medical help immediately.

Following skin contact

Take off all contaminated clothing. Areas of the body that have come into contact with the product must be rinsed with water. Consult a physician.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. Seek medical help.

Following ingestion

Do not induce vomiting! Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Immediately consult a doctor. Show the physician the safety data sheet or label.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation

Excessive exposure to spray mist, fog, or vapours may cause respiratory irritation.

Following skin contact

Itching, redness, pain. May cause sensitisation by skin contact (itching, redness, rashes).

Following eye contact

Redness, tearing, pain.

Following ingestion

May cause nausea/vomiting and diarrhea. May cause abdominal discomfort. Irritates mucous membranes in the mouth, throat, esophagus and in gastrointestinal area.

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.

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.

5.3 Advice for firefighters**Protective actions**

In case of fire or heating do not breathe fumes/vapours. No action shall be taken involving any personal risk or without suitable training. Prolonged heating can cause an explosion. Vapours can form explosive mixtures with air. Cool containers at risk with water spray. If possible remove containers from endangered area.

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

No information.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel****Protective equipment**

No information.

Precautionary measures

Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking!

Emergency procedures

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

For emergency responders

Use personal protective equipment.

6.2 Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. In case of release into the environment, inform the relevant 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

Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. Use only explosion-proof instruments and equipment. Use spark-proof tools. Prevent release into the sewer, water, basements or confined areas. Ventilate the premises. Clean contaminated area with plenty of water.

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

Ensure adequate ventilation. Keep away from sources of ignition - no smoking. Use spark-proof tools. Take precautionary measures against static discharges. Vapours are heavier than air and spread along the floor. They form explosive mixtures with air.

Measures to prevent aerosol and dust generation

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

Measures to protect the environment

Do not discharge into drains, surface water and soil. After use immediately close container tightly.

Other measures

No information.

Advice on general occupational hygiene

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe vapours/mist. Avoid contact with skin, eyes and clothes. Remove contaminated clothes and wash them before reuse. Wear suitable protective equipment; see Section 8. Avoid exposure - obtain special instructions before using.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep in a cool, dry and well ventilated place. Protect from open fire, heat and direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep away from oxidising substances. Keep away from sources of ignition - no smoking.

Packaging materials

Store only in original container.

Requirements for storage rooms and vessels

Close opened containers after use. Put the containers upright to prevent from leaking. 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
Barium sulfate	/	/	/	/	/	/

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
styrene	Worker	inhalation	long term systemic effects	/	85 mg/m ³
styrene	Worker	inhalation	short term systemic effects	/	289 mg/m ³
styrene	Worker	inhalation	short term local effects	/	306 mg/m ³
styrene	Worker	dermal	long term systemic effects	/	406 mg/kg bw/day
styrene	Consumer	inhalation	long term systemic effects	/	10.2 mg/m ³
styrene	Consumer	inhalation	short term systemic effects	/	174.25 mg/m ³
styrene	Consumer	inhalation	short term local effects	/	182.75 mg/m ³
styrene	Consumer	dermal	long term systemic effects	/	343 mg/kg bw/day
styrene	Consumer	oral	long term systemic effects	/	2.1 mg/kg bw/day
Xylene	Worker	inhalation	long term systemic effects	/	221 mg/m ³
Xylene	Worker	inhalation	short term systemic effects	/	442 mg/m ³
Xylene	Worker	inhalation	long term local effects	/	221 mg/m ³
Xylene	Worker	inhalation	short term local effects	/	442 mg/m ³
Xylene	Worker	dermal	long term systemic effects	/	212 mg/kg bw/day
Xylene	Consumer	inhalation	long term systemic effects	/	65.3 mg/m ³
Xylene	Consumer	inhalation	short term systemic effects	/	260 mg/m ³
Xylene	Consumer	inhalation	long term local effects	/	65.3 mg/m ³
Xylene	Consumer	inhalation	short term local effects	/	260 mg/m ³
Xylene	Consumer	dermal	long term systemic effects	/	125 mg/kg bw/day
Xylene	Consumer	oral	long term systemic effects	/	12.5 mg/kg bw/day

PNEC values

For product

No information.

For components

NAME	EXPOSURE ROUTE	REMARK	VALUE
styrene	fresh water	/	0.028 mg/L
styrene	water, intermittent release	/	0.04 mg/L
styrene	marine water	/	0.014 mg/L
styrene	water treatment plant	/	5 mg/L
styrene	fresh water sediment	dry weight	0.614 mg/kg
styrene	marine water sediment	dry weight	0.307 mg/kg
styrene	soil	dry weight	0.2 mg/kg
Xylene	fresh water	/	0.327 mg/L
Xylene	water, intermittent release	/	0.327 mg/L
Xylene	marine water	/	0.327 mg/L

Xylene	water treatment plant	/	6.58 mg/L
Xylene	fresh water sediment	dry weight	12.46 mg/kg
Xylene	marine water sediment	dry weight	12.46 mg/kg
Xylene	soil	dry weight	2.31 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. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothes. Do not eat, drink or smoke while working. Do not breathe vapours/aerosols.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration. Keep away from food, drink and animal feeding stuffs.

Personal protective equipment

Eye and face protection

Safety glasses with side protection (EN 166).

Hand protection

Protective gloves (EN 374). Observe the manufacturer's instructions regarding the use, storage, maintenance and replacement of gloves. In case of damage or at the first signs of wear and tear, change the gloves immediately. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. The penetration time is determined by the protective glove manufacturer and must be observed.

Appropriate materials

Skin protection

Protective antistatic clothing EN 1149 (1:2006, 2:1998 and 3:2004, 5:2008), protective antistatic shoes (EN 20345:2012). At high risk of skin exposure chemical suits (EN ISO 6530:2005) and boots may be required (EN ISO 20345:2012).

Respiratory protection

In case of insufficient ventilation wear suitable 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

Do not allow product to reach drains, sewage systems or ground water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state

liquid

Colour

black

Odour

No information.

Important health, safety and environmental information

Odour threshold	No information.
pH	7 at 20 °C, conc. 100 %
Melting point/Freezing point	No information.
Initial boiling point/boiling range	145 °C
Flash point	31 °C
Evaporation rate	No information.
Flammability (solid, gas)	No information.
Explosion limits (vol%)	No information.
Vapour pressure	6 hPa at 20 °C
Vapour density	No information.
Density / weight	Density: 1.8 g/cm ³ at 20 °C
Solubility	No information.
Partition coefficient	No information.
Auto-ignition temperature	No information.
Decomposition temperature	No information.
Viscosity	No information.
Explosive properties	No information.
Oxidising properties	No information.

9.2 OTHER INFORMATION

Solids content	0 % 0 vol %
Weight organic solvents	120 g/l

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No information.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

Vapours and air can form flammable or explosive mixtures.

10.4 Conditions to avoid

Protect from heat, direct sunlight, open fire, sparks.

10.5 Incompatible materials

Oxidants.

10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. 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 components

NAME	EXPOSURE ROUTE	TYPE	SPECIES	TIME	VALUE	METHOD	REMARK
Barium sulfate	oral	LD ₅₀	rat (male)	/	307 - 364 g/kg	OECD 401	/
Barium sulfate	dermal	LD ₅₀	rat	/	> 2000 mg/kg bw	OECD 402	/
styrene	oral	LD ₅₀	rat	/	5000 mg/kg	/	/
styrene	dermal	LD ₅₀	rat	/	> 2000 mg/kg	OECD 402	/
styrene	inhalation	LC ₅₀	rat	4 h	11.8 mg/l	/	/
Xylene	oral	LD ₅₀	rat	/	> 3523 mg/kg	/	/
Xylene	dermal	LD ₅₀	rabbit	/	4200 mg/kg	/	/
Xylene	inhalation (vapours)	LC ₅₀	rat	4 h	29 mg/l	/	/
titanium dioxide	oral	LD ₅₀	rat	/	> 10000 mg/kg	/	/
titanium dioxide	dermal	LD ₅₀	rabbit	/	> 10000 mg/kg	/	/
titanium dioxide	inhalation (dusts/mists)	LC ₅₀	rat	4 h	> 6.82 mg/l	/	/
AEROSIL 200	oral	LD ₅₀	rat	/	3160 mg/kg	/	/
2-phenoxyethanol	oral	LD ₅₀	rat	/	1260 mg/kg	/	/
Ethylbenzene	dermal	LD ₅₀	rabbit	/	17800 mg/kg	/	/
Ethylbenzene	oral	LD ₅₀	rat	/	3500 mg/kg	/	/
Ethylbenzene	inhalation	LC ₅₀	/	4 h	11 mg/l	/	ATE
Stiren	oral	LD ₅₀	rat	/	5000 mg/kg	/	/
Stiren	dermal	LD ₅₀	rat	/	> 2000 mg/kg	OECD 402	/
Stiren	inhalation	LC ₅₀	rat	4 h	11.8 mg/l	/	/
maleic anhydride	oral	LD ₅₀	rat	/	1090 mg/kg	/	/
maleic anhydride	inhalation	LC ₅₀	rat	1 h	> 4.35 mg/l	/	/
maleic anhydride	oral	LD ₅₀	rabbit	/	2620 mg/kg	/	/

Additional information

The product is not classified for acute toxicity.

(b) Skin corrosion/irritation

For components

NAME	SPECIES	TIME	RESULT	METHOD	REMARK
titanium dioxide	rabbit	/	Non-irritant.	/	/
maleic anhydride	rabbit	/	Corrosive.	/	/
(2-methoxymethylethoxy) propanol	rabbit	/	Mild irritating.	/	/

Additional information

The product is not classified as irritating to skin and eyes. Causes skin irritation.

(c) Serious eye damage/irritation

For components

NAME	EXPOSURE ROUTE	SPECIES	TIME	RESULT	METHOD	REMARK
titanium dioxide	/	rabbit	/	Non-irritant.	/	/
(2-methoxymethylethoxy) propanol	/	human	/	Mild irritating.	/	/
(2-methoxymethylethoxy) propanol	/	rabbit	/	Mild irritating.	/	/

(d) Respiratory or skin sensitisation

For components

NAME	EXPOSURE ROUTE	SPECIES	TIME	RESULT	METHOD	REMARK
titanium dioxide	dermal	human and animal	/	Non sensitising.	/	/
maleic anhydride	dermal	/	/	Sensitizing.	/	/

Additional information

May cause an allergic skin reaction. The product is not classified as sensitising.

(e) (Germ cell) mutagenicity

For components

NAME	TYPE	SPECIES	TIME	RESULT	METHOD	REMARK
titanium dioxide	in-vitro mutagenicity	/	/	Non-mutagenic.	/	/
maleic anhydride	in-vitro mutagenicity	/	/	Negative.	/	/
maleic anhydride	in-vivo mutagenicity	/	/	Negative.	/	/

(f) Carcinogenicity

For components

NAME	EXPOSURE ROUTE	TYPE	SPECIES	TIME	VALUE	RESULT	METHOD	REMARK
styrene	inhalation (vapours)	NOAEL	rat	/	4.34 mg/l	/	OECD 453	5 days per week, 6 h per day
titanium dioxide	/	/	/	/	/	IARC 2B: Possibly carcinogenic to humans.	/	/
titanium dioxide	oral	-	Multiple animal species	/	/	Not carcinogenic.	/	/
titanium dioxide	inhalation	-	rat	/	/	carcinogenic	/	/
Stiren	inhalation (vapours)	NOAEL	rat	/	4.34 mg/l	/	OECD 453	5 days per week, 6 h per day
maleic anhydride	dermal	NOEL	rat	/	100 mg/kg bw/day	/	/	/

(g) Reproductive toxicity

For components

NAME	REPRODUCTIVE TOXICITY TYPE	TYPE	SPECIES	TIME	VALUE	RESULT	METHOD	REMARK
styrene	Effects on fertility	NOAEL (parents)	rat	/	0.65 - 2.2 mg/L	/	OECD 416	Inhalation (vapour)
styrene	Effects on fertility	NOAEL (F2)	rat	/	0.22 mg/L	/	OECD 416	Inhalation (vapour)
styrene	Developmental toxicity	NOAEL	rat	/	2.6 mg/L	/	/	Inhalation
styrene	Teratogenicity	NOAEL	rat	/	2.6 mg/L	/	/	Inhalation

styrene	Maternal toxicity	LOAEL	rat	/	1.3 mg/L	/	/	Inhalation
Stiren	Effects on fertility	NOAEL (parents)	rat	/	0.65 - 2.2 mg/L	/	OECD 416	Inhalation (vapour)
Stiren	Effects on fertility	NOAEL (F2)	rat	/	0.22 mg/L	/	OECD 416	Inhalation (vapour)
Stiren	Developmental toxicity	NOAEL	rat	/	2.6 mg/L	/	/	Inhalation
Stiren	Teratogenicity	NOAEL	rat	/	2.6 mg/L	/	/	Inhalation
Stiren	Maternal toxicity	LOAEL	rat	/	1.3 mg/L	/	/	Inhalation
maleic anhydride	Reproductive toxicity	NOAEL	rat	/	55 mg/kg	/	two-generation study	/

Summary of evaluation of the CMR properties

Suspected of damaging the unborn child. The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

(h) STOT-single exposure

No information.

Additional information

STOT SE (single exposure): Not classified.

(i) STOT-repeated exposure

For components

NAME	EXPOSURE ROUTE	TYPE	SPECIES	TIME	EXPOSURE	ORGAN	VALUE	RESULT	METHOD	REMARK
styrene	inhalation (vapours)	NOAEL	rat	13 weeks	sub-acute	/	0.85 mg/L	/	/	6h/day
styrene	inhalation (vapours)	NOAEL	rat	/	sub-chronic	/	mg/L	/	OECD 453	6h/day
titanium dioxide	inhalation	LOAEL	rat	2 years	/	Respiratory system	0.01 mg/L	Some positive data exist, but the data are not sufficient for classification.	/	/
titanium dioxide	inhalation	-	human	/	/	/	/	pulmonary fibrosis: negative	/	occupational exposure
Stiren	inhalation (vapours)	NOAEL	rat	13 weeks	sub-acute	/	0.85 mg/L	/	/	6h/day
Stiren	inhalation (vapours)	NOAEL	rat	/	sub-chronic	/	mg/L	/	OECD 453	6h/day

Additional information

Causes damage to organs through prolonged or repeated exposure. STOT RE (repeated exposure): Not classified.

(j) Aspiration hazard

No information.

Additional information

Aspiration hazard: Not classified.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute (short-term) toxicity
For components

NAME	TYPE	VALUE	EXPOSURE TIME	SPECIES	ORGANISM	METHOD	REMARK
Barium sulfate	LC ₅₀	> 152 mg/L	96 h	fish	<i>Danio rerio</i>	OECD 203	/
Barium sulfate	LC ₅₀	14500 µg/l	48 h	daphnia	<i>Daphnia magna</i>	/	/
Barium sulfate	EC ₅₀	> 1.15 mg/L	72 h	algae	<i>Pseudokirchneriella subcapitata</i>	OECD 201	/
Barium sulfate	EC ₅₀	> 622 mg/L	3 h	bacteria	Activated sludge	OECD 209 Activated Sludge, Respiration Inhibition Test	/
styrene	LC ₅₀	4.02 mg/L	96 h	fish	<i>Pimephales promelas</i>	/	/
styrene	EC ₅₀	4.7 mg/L	48 h	crustacea	<i>Daphnia magna</i>	OECD 202	/
styrene	EC ₅₀	4.9 mg/L	72 h	algae	<i>Pseudokirchneriella subcapitata</i>	EPA OTS 797.1050	/
styrene	EC ₅₀	ca. 500 mg/L	30 min	bacteria	/	OECD 209	/
styrene	EC ₁₀	0.28 mg/L	96 h	algae	<i>Pseudokirchneriella subcapitata</i>	EPA OTS 797.1050	/
Xylene	LC ₅₀	13.4 mg/L	96 h	fish	<i>Pimephales promelas</i>	/	/
Xylene	LC ₅₀	13.1 - 16.5 mg/L	96 h	fish	<i>Lepomis macrochirus</i>	/	/
Xylene	LC ₅₀	2661 - 4093 mg/L	96 h	fish	<i>Oncorhynchus mykiss</i>	/	/
Xylene	LC ₅₀	19 mg/L	96 h	fish	<i>Lepomis macrochirus</i>	/	/
Xylene	LC ₅₀	30.26 - 40.75 mg/L	96 h	fish	<i>Poecilia reticulata</i>	/	/
Xylene	LC ₅₀	23.53 - 29.97 mg/L	96 h	fish	<i>Pimephales promelas</i>	/	/
Xylene	LC ₅₀	7711 - 9591 mg/L	96 h	fish	<i>Lepomis macrochirus</i>	/	/
Xylene	LC ₅₀	780 mg/L	96 h	fish	<i>Cyprinus carpio</i>	/	/
Xylene	LC ₅₀	> 780 mg/L	96 h	fish	<i>Cyprinus carpio</i>	/	/
Xylene	LC ₅₀	13.5 - 17.3 mg/L	96 h	fish	<i>Oncorhynchus mykiss</i>	/	/
Xylene	EC ₅₀	3.82 mg/L	48 h	daphnia	/	/	/
Ethylbenzene	EC ₅₀	2.1 mg/L	48 h	<i>Daphnia</i>	/	/	/
Stiren	LC ₅₀	4.02 mg/L	96 h	fish	<i>Pimephales promelas</i>	/	/
Stiren	EC ₅₀	4.7 mg/L	48 h	crustacea	<i>Daphnia magna</i>	OECD 202	/
Stiren	EC ₅₀	4.9 mg/L	72 h	algae	<i>Pseudokirchneriella subcapitata</i>	EPA OTS 797.1050	/
Stiren	EC ₅₀	ca. 500 mg/L	30 min	bacteria	/	OECD 209	/
Stiren	EC ₁₀	0.28 mg/L	96 h	algae	<i>Pseudokirchneriella subcapitata</i>	EPA OTS 797.1050	/
maleic anhydride	LC ₅₀	75 mg/L	96 h	fish	<i>Lepomis macrochirus</i>	/	/
maleic anhydride	LC ₅₀	75 mg/L	96	fish	<i>Oncorhynchus mykiss</i>	/	/
maleic anhydride	EC ₅₀	42.81 mg/L	48 h	crustacea	<i>Daphnia magna</i>	/	/
maleic anhydride	EC ₅₀	150 mg/L	72 h	algae	<i>Pseudokirchneriella subcapitata</i>	/	/
maleic anhydride	EC ₁₀	44.6 mg/L	18 h	microorganisms	<i>Pseudomonas putida</i>	/	/
1,4-naftokinon	EC ₅₀	0.011 mg/L	72 h	algae	<i>Dunaliella biocultura</i>	OECD Guideline 201 (Alga, Growth Inhibition Test)	/

Chronic (long-term) toxicity
For components

NAME	TYPE	VALUE	EXPOSURE TIME	SPECIES	ORGANISM	METHOD	REMARK
Barium sulfate	NOEC	≥ 100 mg/l	33 days	fish	<i>Danio rerio</i>	OECD 210	/
Barium sulfate	EC16	5800 µg/L	21 days	Magna Daphnia	<i>Daphnia magna</i>	/	/
styrene	NOEC	1.01 mg/l	21 days	crustacea	<i>Daphnia magna</i>	OECD 211	/
Stiren	NOEC	1.01 mg/l	21 days	crustacea	<i>Daphnia magna</i>	OECD 211	/
maleic anhydride	NOEC	10 mg/l	21 days	crustacea	<i>Daphnia magna</i>	/	/
maleic anhydride	NOEC	11.8 mg/l	72 h	algae	<i>Pseudokirchneriella subcapitata</i>	/	/

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination

No information.

Biodegradation

For components

NAME	TYPE	RATE	TIME	EVALUATION	METHOD	REMARK
Talc (Mg ₃ H ₂ (SiO ₃) ₄)	Water solubility	< 0.1 mg/L	/	/	/	/
styrene	biodegradability	70.9 %	28 days	readily biodegradable	ISO DIN 9408	aerobic, activated sludge
Stiren	biodegradability	70.9 %	28 days	readily biodegradable	ISO DIN 9408	aerobic, activated sludge
maleic anhydride	biodegradability	> 90 %	/	rapidly biodegradable	OECD 301 B	/
1,4-naftokinon	biodegradability	0 - 60 %	/	/	OECD 301 A-F	/

12.3 Bioaccumulative potential

Partition coefficient

For components

NAME	MEDIA	VALUE	TEMPERATURE °C	PH	CONCENTRATION	METHOD
styrene	Octanol-water (log Pow)	2.96	/	/	/	/
2-phenoxyethanol	log Kow	1.16	/	/	/	/
Stiren	Octanol-water (log Pow)	2.96	/	/	/	/
maleic anhydride	Log Pow	-2.61	/	/	/	/
1,4-naftokinon	log Kow	1.71	/	/	/	/

Bioconcentration factor (BCF)

For components

NAME	SPECIES	ORGANISM	VALUE	DURATION	EVALUATION	METHOD	REMARK
styrene	BCF	fish	13.5	/	/	/	/
styrene	BCF	/	74	/	/	/	Calculated value
Stiren	BCF	fish	13.5	/	/	/	/
Stiren	BCF	/	74	/	/	/	Calculated value

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
styrene	Soil	log KOC	2.55	/	/	/
styrene	Soil	/	352	/	/	Koc
Stiren	Soil	log KOC	2.55	/	/	/
Stiren	Soil	/	352	/	/	Koc
maleic anhydride	Soil	log KOC	1.63	/	/	/

12.5 Results of PBT and vPvB assessment

No evaluation.

12.6 Other adverse effects

No information.

12.7 Additional information

For product

Product is not classified as dangerous for environment. Do not allow to reach ground water, water courses or sewage system.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product / Packaging disposal

Waste chemical

Do not allow product to reach drains/sewage systems. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste.

Waste codes / waste designations according to LoW

07 02 08* - other still bottoms and reaction residues

Packaging

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. Uncleaned containers should not be perforated, cut or welded. Empty containers represent a fire hazard as they may contain flammable product residues and vapour.

Waste codes / waste designations according to LoW

No information.

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 1866	UN 1866	UN 1866	UN 1866

14.2 UN proper shipping name			
RESIN SOLUTION	RESIN SOLUTION	RESIN SOLUTION	RESIN SOLUTION
14.3 Transport hazard class(es)			
3	3	3	3
			
14.4 Packing group			
III	III	III	III
14.5 Environmental hazards			
NO	NO	NO	NO
14.6 Special precautions for user			
Limited quantities 5 L Packing Instructions P001, IBC03, LP01, R001 Special packing provisions PP1 Transport category 3 Tunnel restriction code (D/E)	Limited quantities 5 L EmS F-E, S-E Flash point 31 °C	Limited Quantity, Packing Instructions (Ltd Qty, Pkg Inst) Y344 Limited Quantity, Maximum Net Quantity/Package (Ltd Qty, Max Net Qty/Pkg) 10 L Packing Instructions (Pkg Inst) 355 Maximum Net Quantity/Package (Max Net Qty/Pkg) 25 L Special provisions A3	Limited quantities 5 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

Observe the regulations on employment and protection against dangerous substances for young people, pregnant women and nursing mothers.

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

2.2 Label elements 12.1 Toxicity 12.2 Persistence and degradability 12.3 Bioaccumulative potential

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

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H361d Suspected of damaging the unborn child.
H372 Causes damage to organs (hearing organs, hearing organs) through prolonged or repeated exposure.
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.