according to Regulation (EC) No. 1907/2006



Carsystem Plastic Pro

Version Revision Date: Date of last issue: 28.01.2020 30.04.2020 Date of first issue: 26.06.2019 2.0 GB / EN

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

1.1 Product identifier

Trade name Carsystem Plastic Pro

Product code : 149.613

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

Use of the Sub-Body filler/stopper

stance/Mixture

Recommended restrictions

on use

Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Company : Vosschemie GmbH

> Esinger Steinweg 50 25436 Uetersen

Germany

info@vosschemie.de

Telephone : 04122 717 0 Telefax : 04122 717158

Responsible Department : Laboratory

04122 717 0

sds@vosschemie.de

1.4 Emergency telephone number

Telephone : Giftinformationszentrum (GIZ)-Nord,

Göttingen, Deutschland

0551 19240

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3 H226: Flammable liquid and vapour.

Skin irritation, Category 2 H315: Causes skin irritation.

Eye irritation, Category 2 H319: Causes serious eye irritation.

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

Reproductive toxicity, Category 2 H361d: Suspected of damaging the unborn child.

Specific target organ toxicity - repeated

exposure, Category 1 longed or repeated exposure.

2.2 Label elements

Hazard pictograms

Labelling (REGULATION (EC) No 1272/2008)







H372: Causes damage to organs through pro-

Signal word : Danger

Hazard statements : 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 through prolonged or re-

peated exposure.

Precautionary statements : Prevention:

P201 Obtain special instructions before use.

P210 Keep away from heat, hot surfaces, sparks, open

flames and other ignition sources. No smoking.

P260 Do not breathe dust / mist / vapours.

P280 Wear protective gloves/ protective clothing/ eye protec-

tion/ face protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with wa-

ter for several minutes. Remove contact lenses, if pre-

sent and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/

attention.

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Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/container to an approved facility in accordance with local, regional, national and interna-

tional regulations.

Hazardous components which must be listed on the label:

styrene

maleic anhydride

2.3 Other hazards

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Mixture

contains Resin

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)	
styrene	100-42-5 202-851-5 601-026-00-0 01-2119457861-32	Flam. Liq. 3; H226 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Repr. 2; H361d STOT SE 3; H335 STOT RE 1; H372 Asp. Tox. 1; H304 Aquatic Chronic 3; H412	>= 10 - < 20	
maleic anhydride	108-31-6 203-571-6 607-096-00-9 01-2119472428-31	Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Resp. Sens. 1; H334 Skin Sens. 1A; H317 STOT RE 1; H372	>= 0.001 - < 0.1	
Substances with a workplace exposure limit :				
copper chromite black spinel	68186-91-4 269-053-7 01-2119966123-40		>= 1 - < 10	
Silicon dioxide	7631-86-9 231-545-4		>= 1 - < 10	

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01-2119379499-16

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : In the case of accident or if you feel unwell, seek medical ad-

vice immediately.

Move out of dangerous area.

Take off contaminated clothing and shoes immediately.

Do not leave the victim unattended.

Symptoms of poisoning may appear several hours later. Show this safety data sheet to the doctor in attendance.

Protection of first-aiders : First Aid responders should pay attention to self-protection

and use the recommended protective clothing

If inhaled : Move to fresh air.

Keep patient warm and at rest.

If breathing is irregular or stopped, administer artificial respira-

tion.

Call a physician immediately.

In case of skin contact : Wash off immediately with soap and plenty of water while

removing all contaminated clothes and shoes. Call a physician if irritation develops or persists.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,

for at least 15 minutes.

Keep eye wide open while rinsing.

If easy to do, remove contact lens, if worn.

Consult a physician.

If swallowed : Rinse mouth with water.

Do NOT induce vomiting. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

Risks : Causes skin irritation.

May cause an allergic skin reaction. Causes serious eye irritation.

Suspected of damaging the unborn child.

Causes damage to organs through prolonged or repeated

exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

Keep under medical supervision for at least 48 hours.

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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO2)

Dry powder Water spray jet

Alcohol-resistant foam

Unsuitable extinguishing

media

High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

Build-up of dangerous/toxic fumes possible in cases of

fire/high temperature.

Hazardous combustion prod: :

ucts

Hazardous decomposition products due to incomplete com-

bustion

Carbon monoxide, carbon dioxide and unburned hydrocar-

bons (smoke).

5.3 Advice for firefighters

Special protective equipment :

for firefighters

In the event of fire, wear self-contained breathing apparatus.

Use personal protective equipment.

Further information : Use water spray to cool unopened containers.

Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear personal protective equipment.

Evacuate personnel to safe areas.

Ensure adequate ventilation, especially in confined areas.

Remove all sources of ignition.

Do not smoke.

Avoid contact with skin, eyes and clothing. Sweep up to prevent slipping hazard.

In the case of vapour formation use a respirator with an ap-

proved filter.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

Local authorities should be advised if significant spillages

cannot be contained.

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6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel,

acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

Do not flush with water.

6.4 Reference to other sections

For personal protection see section 8., For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Keep container closed when not in use.

Provide sufficient air exchange and/or exhaust in work rooms.

Wear personal protective equipment. Avoid contact with skin and eyes.

Avoid the inhalation of dust, particulates, spray or mist arising

from the application of this mixture. Avoid inhalation of dust from sanding.

Advice on protection against

fire and explosion

Vapours may form explosive mixtures with air.

Keep away from open flames, hot surfaces and sources of

ignition. Do not smoke.

Take measures to prevent the build up of electrostatic charge.

Use explosion-proof equipment.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage

areas and containers

Store in original container.

Keep containers tightly closed in a dry, cool and well-

ventilated place.

Further information on stor-

age conditions

Keep away from heat and sources of ignition.

Protect from moisture.

Keep away from direct sunlight.

Do not store at temperatures above 30 °C / 86 °F.

Advice on common storage : Incompatible with oxidizing agents.

Keep away from food and drink.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Take type (1 cm) contains to a said	Components	CAS-No.	Value type (Form	Control parameters	Basis
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		of exposure)		
Talc	14807-96-6	TWA (Respirable	1 mg/m3	GB EH40
Taic		dust)		
Further information	fractions of ai in accordance sampling and sols, Talc is de cates including amph substance had concentration ble dust or 4 mill be subjected Some dusts he comply with the wide range of cle after entry it elicits, depending the respiratory trates to the gry material are have their ow Where no specific solls.	ses of these limits, reported dust which will with the methods department analysis efined as the minerary of chlorite and carbonished as bestos and cardous to health incoming air equal to or grams. The behaviour of the human respondence of the hu	espirable dust and inhalable espirable dust and inhalable ill be collected when sampling escribed in MDHS14/4 General for respirable, thoracic and in all talc together with other hydrate materials which occur werystalline silica., The COSHICLUD COSHICUD COSHICLUD COSHICLUD COSHICLUD COSHICLUD COSHICLUD COSHICLUD CO	g is undertaken ral methods for chalable aero-rous phyllosili- cith it, but ex- I definition of a present at a TWA of inhala- cent that any dust these levels. The these must in particles of a particular partic
styrene	100-42-5	osure limit should be TWA	e used. 100 ppm 430 mg/m3	GB EH40
		STEL	250 ppm 1,080 mg/m3	GB EH40
copper chromite black spinel	68186-91-4	TWA (inhalable fraction)	0.2 mg/m3 (Manganese)	2017/164/EU
Further information	Indicative			
		TWA (Respirable fraction)	0.05 mg/m3 (Manganese)	2017/164/EU
Further information	Indicative	,	,	
		TWA (Dusts and mists)	1 mg/m3 (Copper)	GB EH40
		STEL (Dusts and mists)	2 mg/m3 (Copper)	GB EH40
		TWA	0.5 mg/m3 (chromium)	GB EH40
Further information				
		TWA (Inhalable)	0.2 mg/m3 (Manganese)	GB EH40
Further information	on Where no specific short-term exposure limit is listed, a figure three times long-term exposure limit should be used.			ree times the
	<u> </u>	TWA (Respirable)	0.05 mg/m3 (Manganese)	GB EH40
Further information	Where no specific short-term exposure limit is listed, a figure three times the			

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	long-term exp	osure limit should be	e used.		
Silicon dioxide	7631-86-9	TWA (Respirable	0.1 mg/m3	2004/37/EC	
		dust)			
Further information	Carcinogens or mutagens				
		TWA (inhalable	6 mg/m3	GB EH40	
		dust)	(Silica)		
Further information	For the purposes of these limits, respirable dust and inhalable dust are tho				
			Il be collected when sampling		
	in accordance with the methods described in MDHS14/4 General methods for				
	sampling and gravimetric analysis or respirable, thoracic and inhalable a				
			ubstance hazardous to healt		
			centration in air equal to or g		
			dust or 4 mg.m-3 8-hour TW		
			I be subject to COSHH if peo		
			Some dusts have been assign		
			t comply with the appropriate		
	industrial dus	ts contain particles o	f a wide range of sizes. The	behaviour,	
	deposition an	d fate of any particul	ar particle after entry into the	human res-	
			oonse that it elicits, depend o		
			nguishes two size fractions fo		
	purposes tern	ned 'inhalable' and 'r	espirable'., Inhalable dust ap	proximates to	
	the fraction of	airborne material th	at enters the nose and moutl	n during breath-	
			eposition in the respiratory to		
	dust approximates to the fraction that penetrates to the gas exchange region				
	of the lung. Fuller definitions and explanatory material are given in				
	MDHS14/4., Where dusts contain components that have their own assigned				
			be complied with., Where no		
	term exposure limit is listed, a figure three times the long-term exposure li should be used.			exposure limit	
				T == =	
		TWA (Respirable	2.4 mg/m3	GB EH40	
		dust)	(Silica)		
Further information	For the purposes of these limits, respirable dust and inhalable dust are th				
			Il be collected when sampling		
			escribed in MDHS14/4 Gene		
			or respirable, thoracic and in		
	sols, The COSHH definition of a substance hazardous to health includes dust				
	of any kind when present at a concentration in air equal to or greater than 10				
	mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable				
	dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific				
	WELs and exposure to these must comply with the appropriate limits., Most				
	industrial dusts contain particles of a wide range of sizes. The behaviour,				
	, ,				
	deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, depend on the nature				
	and size of the particle. HSE distinguishes two size fractions for limit-setting				
	purposes termed 'inhalable' and 'respirable'., Inhalable dust approximates to				
	the fraction of airborne material that enters the nose and mouth during breath-				
	ing and is therefore available for deposition in the respiratory tract. Respirable				
	dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in				
	of the lung. Fuller definitions and explanatory material are given in				
1	MDHS14/4., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-				
	term exposure limit is listed, a figure three times the long-term exposure limit				
	should be used.				

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maleic anhydride	108-31-6	TWA	1 mg/m3	GB EH40
Further information	Capable of causing occupational asthma.			
		STEL	3 mg/m3	GB EH40
Further information	Capable of causing occupational asthma.			

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

Substance name	End Use	Exposure routes	Potential health effects	Value
styrene	Workers	Dermal	Long-term systemic effects, Chronic effects	406 mg/kg bw/day
	Workers	Inhalation	Long-term systemic effects, Chronic effects	85 mg/m3
	Workers	Inhalation	Acute systemic effects, Chronic effects	289 mg/m3
	Workers	Inhalation	Acute local effects, Short-term exposure	306 mg/m3
	Consumers	Oral	Long-term systemic effects, Chronic effects	2.1 mg/kg bw/day
	Consumers	Dermal	Long-term systemic effects, Chronic effects	343 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects, Chronic effects	10.0 mg/m3
	Consumers	Inhalation	Acute systemic ef- fects, Short-term exposure	174.25 mg/m3
	Consumers	Inhalation	Acute local effects, Short-term exposure	182.75 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
styrene	Fresh water	0.028 mg/l
	Marine water	0.014 mg/l
	Fresh water sediment	0.614 mg/kg dry
		weight (d.w.)
	Marine sediment	0.307 mg/kg dry
		weight (d.w.)
	Soil	0.2 mg/kg dry
		weight (d.w.)
	Sewage treatment plant	5 mg/l

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses with side-shields conforming to EN166

Hand protection

Material : Fluorinated rubber

Break through time : > 480 min

according to Regulation (EC) No. 1907/2006



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> Glove thickness >= 0.4 mm

Directive **DIN EN 374**

Protective index Class 6

Gloves should be discarded and replaced if there is any indi-Remarks

cation of degradation or chemical breakthrough.

The data about break through time/strength of material are standard values! The exact break through time/strength of material has to be obtained from the producer of the protec-

tive glove.

The choice of an appropriate glove does not only depend on its material but also on other quality features and is different

from one producer to the other. Preventive skin protection Butyl gloves are not suitable. Nitrile gloves are not suitable.

Avoid natural rubber gloves.

Skin and body protection Please wear suitable protective clothing, e.g. made of cotton

or heat-resistant synthetic fibres.

Long sleeved clothing

Apply technical measures to comply with the occupational Respiratory protection

exposure limits.

If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment

should be used.

Dry sanding, flame cutting and/or welding of the cured mate-

rial will give rise to dust and/or hazardous fumes.

Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release

(dust).

Filter type Combined particulates and organic vapour type (A-P)

Ensure that eye flushing systems and safety showers are Protective measures

> located close to the working place. Avoid contact with the skin and the eyes.

Use only with adequate ventilation.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance paste

Colour black

according to Regulation (EC) No. 1907/2006



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Odour : characteristic

pH : not determined

Melting point/range : not determined

Boiling point/boiling range : 145 °C

(1,013 hPa)

Literary value styrene

Flash point : $31 \, ^{\circ}\text{C}(1,013 \, \text{hPa})$

Literary value styrene

Upper explosion limit / Upper

flammability limit

6.1 %(V)

Literary value styrene

Lower explosion limit / Lower

flammability limit

1.1 %(V)

Literary value styrene

Vapour pressure : 6.67 hPa (20 °C)

Literary value styrene

Density : ca. 1.3 g/cm3 (20 °C)

Solubility(ies)

Water solubility : 0.32 g/l Literary value styrene (25 °C)

insoluble

Partition coefficient: n-

octanol/water

No data available

Ignition temperature : 490 °C (1,013 hPa)

Literary value styrene

Viscosity

Viscosity, dynamic : not determined

Viscosity, kinematic : not determined

Explosive properties : Not explosive

In use, may form flammable/explosive vapour-air mixture.

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if used as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

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10.3 Possibility of hazardous reactions

Hazardous reactions : Avoid radical-forming starting agents, peroxides and reactive

metals.

Polymerisation can occur.

Polymerisation is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or

rupture containers.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

Strong sunlight for prolonged periods.

10.5 Incompatible materials

Materials to avoid : Strong acids and oxidizing agents

polymerisation initiators

Copper alloys

Brass

10.6 Hazardous decomposition products

Build-up of dangerous/toxic fumes possible in cases of fire/high temperature.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Product:

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l

Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Components:

styrene:

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

Acute inhalation toxicity : LC50 (Rat): 11.8 mg/l

Exposure time: 4 h
Test atmosphere: vapour

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

Method: OECD Test Guideline 402

maleic anhydride:

Acute oral toxicity : LD50 Oral (Rat): 1,090 mg/kg

Method: OECD Test Guideline 401

according to Regulation (EC) No. 1907/2006



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Acute inhalation toxicity : LC50 (Rat): > 4.35 mg/l

Exposure time: 1 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 Dermal (Rabbit): 2,620 mg/kg

copper chromite black spinel:

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

Acute inhalation toxicity : LC50 (Rat): > 5.07 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Silicon dioxide:

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

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC0 (Rat): 0.139 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5,000 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Components:

styrene:

Species : Rabbit Result : irritating

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

styrene:

Species : Rabbit Result : irritating

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified based on available information.

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Components:

styrene:

Species : Guinea pig

Result : Does not cause skin sensitisation.

maleic anhydride:

Result : The product is a skin sensitiser, sub-category 1A.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Suspected of damaging the unborn child.

Components:

styrene:

Reproductive toxicity - As-

sessment

Suspected of damaging the unborn child.

STOT - single exposure

Not classified based on available information.

Components:

styrene:

Assessment : May cause respiratory irritation.

STOT - repeated exposure

Causes damage to organs (ear) through prolonged or repeated exposure if inhaled.

Components:

styrene:

Exposure routes : Inhalation Target Organs : ear

Assessment : Causes damage to organs through prolonged or repeated

exposure.

maleic anhydride:

Exposure routes : Inhalation

Target Organs : Respiratory system

Assessment : Causes damage to organs through prolonged or repeated

exposure.

Aspiration toxicity

Not classified based on available information.

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Components:

styrene:

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1 Toxicity

Components:

styrene:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 4.02 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 4.7 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Selenastrum capricornutum (green algae)): 4.9 mg/l

Exposure time: 72 h

Toxicity to microorganisms : EC50 (Natural microorganism): ca. 500 mg/l

Method: OECD Test Guideline 209

Toxicity to fish (Chronic tox-

icity)

No data available:

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

NOEC: 1,01 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

Ecotoxicology Assessment

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

maleic anhydride:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 75 mg/l

Exposure time: 96 h Method: EPA-660/3-75-00

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 42.81 mg/l

End point: Immobilization Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 74.35

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

according to Regulation (EC) No. 1907/2006



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Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

NOEC: 10 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Ecotoxicology Assessment

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

Silicon dioxide:

Toxicity to fish : LC0 (Brachydanio rerio (zebrafish)): > 10,000 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

LC50 (Daphnia magna (Water flea)): > 1,000 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

12.2 Persistence and degradability

Components:

styrene:

Biodegradability : Biodegradation: 70.9 %

Exposure time: 28 d Readily biodegradable.

maleic anhydride:

Biodegradability : Biodegradation: > 90 %

Exposure time: 225 d

Method: OECD Test Guideline 301B

12.3 Bioaccumulative potential

Components:

styrene:

Partition coefficient: n-

octanol/water

log Pow: 2.96 (25 °C)

maleic anhydride:

Partition coefficient: n-

octanol/water

log Pow: -2.61 (20 °C)

12.4 Mobility in soil

Components:

styrene:

Distribution among environ-

mental compartments

log Koc: 2.55

according to Regulation (EC) No. 1907/2006



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12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher...

12.6 Other adverse effects

Product:

Additional ecological infor-

mation

: No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Do not dispose of with domestic refuse.

Do not empty into drains, dispose of this material and its con-

tainer at hazardous or special waste collection point. Dispose of in accordance with local regulations.

Dispose of wastes in an approved waste disposal facility.

Do not dispose of together with household waste. Send to a licensed waste management company.

It must undergo special treatment, e.g. at suitable disposal

site, to comply with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste han-

dling site for recycling or disposal.

Store containers and offer for recycling of material when in

accordance with the local regulations.

Packaging that is not properly emptied must be disposed of as

the unused product.

Dispose of in accordance with local regulations.

Waste Code : The following Waste Codes are only suggestions:

07 02 08, other still bottoms and reaction residues

SECTION 14: Transport information

14.1 UN number

ADN : UN 1866
ADR : UN 1866
RID : UN 1866
IMDG : UN 1866
IATA : UN 1866

14.2 UN proper shipping name

according to Regulation (EC) No. 1907/2006



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ADN : RESIN SOLUTION
ADR : RESIN SOLUTION
RID : RESIN SOLUTION
IMDG : RESIN SOLUTION

IATA : Resin solution

14.3 Transport hazard class(es)

ADN : 3
ADR : 3
RID : 3
IMDG : 3
IATA : 3

14.4 Packing group

ADN

Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3

ADR

Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3
Tunnel restriction code : (D/E)

RID

Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3

IMDG

Packing group : III
Labels : 3
EmS Code : F-E, <u>S-E</u>

IATA (Cargo)

Packing instruction (cargo : 366

aircraft)

Packing instruction (LQ) : Y344
Packing group : III

Labels : Class 3 - Flammable liquids

IATA (Passenger)

Packing instruction (passen: 355

ger aircraft)

Packing instruction (LQ) : Y344
Packing group : III

Labels : Class 3 - Flammable liquids

according to Regulation (EC) No. 1907/2006



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14.5 Environmental hazards

Environmentally hazardous no

Environmentally hazardous no

Environmentally hazardous no

IMDG

Marine pollutant no

14.6 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.

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

Not applicable

REACH - List of substances subject to authorisation

(Annex XIV)

Not applicable

Regulation (EC) No 1005/2009 on substances that de-

plete the ozone layer

Not applicable

Regulation (EC) No 850/2004 on persistent organic pol-

lutants

Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances,

preparations and articles (Annex XVII)

Conditions of restriction for the following entries should be considered:

Number on list 3

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

FLAMMABLE LIQUIDS P₅c

Volatile organic compounds Directive 2004/42/EC

> Volatile organic compounds (VOC) content: < 250 g/l VOC content for the product in a ready to use condition.

Other regulations:

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

according to Regulation (EC) No. 1907/2006



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Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

15.2 Chemical safety assessment

A chemical safety assessment according to (EC) regulation 1907/2006 (REACH) has not been carried out for this product.

SECTION 16: Other information

Full text of H-Statements

H226 : Flammable liquid and vapour.

H302 : Harmful if swallowed.

H304 : May be fatal if swallowed and enters airways. 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.

H332 : Harmful if inhaled.

H334 : May cause allergy or asthma symptoms or breathing difficul-

ties if inhaled.

H335 : May cause respiratory irritation.

H361d : Suspected of damaging the unborn child.

H372 : Causes damage to organs through prolonged or repeated

exposure.

H372 : Causes damage to organs through prolonged or repeated

exposure if inhaled.

H412 : Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Chronic : Long-term (chronic) aquatic hazard

Asp. Tox. : Aspiration hazard Eye Dam. : Serious eye damage

Eye Irrit. : Eye irritation
Flam. Liq. : Flammable liquids
Repr. : Reproductive toxicity
Resp. Sens. : Respiratory sensitisation

Skin Corr.: Skin corrosionSkin Irrit.: Skin irritationSkin Sens.: Skin sensitisation

STOT RE : Specific target organ toxicity - repeated exposure STOT SE : Specific target organ toxicity - single exposure

2004/37/EC : Europe. Directive 2004/37/EC on the protection of workers

from the risks related to exposure to carcinogens or mutagens

at work

2017/164/EU : Commission Directive (EU) 2017/164 establishing a fourth list

of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directive 98/EC, and amending 98/EC, and amending 98/EC, and 98/EC, and

tives 91/322/EEC, 2000/39/EC and 2009/161/EU

GB EH40 : UK. EH40 WEL - Workplace Exposure Limits

2004/37/EC / TWA : Long term exposure limit 2017/164/EU / TWA : Limit Value - eight hours

according to Regulation (EC) No. 1907/2006



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GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx -Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:		Classification procedure:	
Flam. Liq. 3	H226	Based on product data or assessment	
Skin Irrit. 2	H315	Calculation method	
Eye Irrit. 2	H319	Calculation method	
Skin Sens. 1	H317	Calculation method	
Repr. 2	H361d	Calculation method	
STOT RE 1	H372	Calculation method	

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific

according to Regulation (EC) No. 1907/2006



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material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.