according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 28.04.2020 Date of first issue: 23.08.2019 2.0 GB / EN

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

1.1 Product identifier

Trade name Carsystem Carbo Putty

Product code : 148.018

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

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

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 - single exposure, Category 3, Respiratory system

H335: May cause respiratory irritation.

Specific target organ toxicity - repeated

exposure, Category 1

H372: Causes damage to organs through pro-

longed or repeated exposure.

Long-term (chronic) aquatic hazard, Cat-

egory 3

H412: Harmful to aquatic life with long lasting ef-

fects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms







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.
H335 May cause respiratory irritation.

H361d Suspected of damaging the unborn child.

H372 Causes damage to organs through prolonged or re-

peated exposure.

H412 Harmful to aquatic life with long lasting effects.

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.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protec-

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

tion/ face protection.

Response:

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

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

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.

Hazardous components which must be listed on the label:

styrene cobalt bis(2-ethylhexanoate) 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	>= 25 - < 30
methanol	67-56-1 200-659-6 603-001-00-X 01-2119433307-44	Flam. Liq. 2; H225 Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H311	>= 0.1 - < 1

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

		STOT SE 1; H370	
oxybenzone	131-57-7 205-031-5 01-2119976330-39	Aquatic Acute 1; H400 Aquatic Chronic 2; H411	>= 0.1 - < 0.25
cobalt bis(2-ethylhexanoate)	136-52-7 205-250-6 01-2119524678-29	Eye Irrit. 2; H319 Skin Sens. 1A; H317 Repr. 1B; H360F Aquatic Acute 1; H400 Aquatic Chronic 3; H412	
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 :			
Silicon dioxide	7631-86-9 231-545-4 01-2119379499-16		>= 1 - < 10

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.

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

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. May cause respiratory 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.

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.

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

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.

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

: Store in original container.

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

ventilated place.

according to Regulation (EC) No. 1907/2006



Basis

Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

Further information on stor-

age conditions

Keep away from heat and sources of ignition.

Value type (Form | Control parameters

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

CAS-No.

8.1 Control parameters

Components

Occupational Exposure Limits

		of exposure)		
styrene	100-42-5	TWA	100 ppm 430 mg/m3	GB EH40
		STEL	250 ppm 1,080 mg/m3	GB EH40
Silicon dioxide	7631-86-9	TWA (Respirable dust)	0.1 mg/m3	2004/37/EC
Further information	Carcinogens	or mutagens		
		TWA (inhalable dust)	6 mg/m3 (Silica)	GB EH40
Further information	fractions of air in accordance sampling and sols, The COS of any kind who mg.m-3 8-hou dust. This me posed to dust WELs and expindustrial dust deposition and piratory system and size of the purposes term the fraction of ing and is their dust approximof the lung. Further MDHS14/4., WEL, all the results among the results and the results approximately the second seco	rborne dust which will with the methods do gravimetric analysis SHH definition of a second research at a control of the second research and the second research and the body respective and the body respective and the body respective and the body respective and the second respective and respective an	espirable dust and inhalable all be collected when sampling escribed in MDHS14/4 Gene or respirable, thoracic and in ubstance hazardous to health centration in air equal to or go dust or 4 mg.m-3 8-hour TWA I be subject to COSHH if people is to comply with the appropriate of a wide range of sizes. The lar particle after entry into the proper state of a wide range of sizes. The lar particle after entry into the proper state of a wide range of sizes. The lar particle after entry into the proper state of the size of the	g is undertaken ral methods for shalable aero- h includes dust reater than 10 to of respirable ople are exgred specific elimits., Most obehaviour, human reson the nature or limit-setting proximates to a during breathmact. Respirable change region in in own assigned o specific short-

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

		TWA (Respirable dust)	2.4 mg/m3 (Silica)	GB EH40
Further information	fractions of air in accordance sampling and sols, The COS of any kind who mg.m-3 8-hou dust. This merosed to dust. WELs and expindustrial dust deposition and piratory system and size of the purposes term the fraction of ing and is their dust approximof the lung. Further MDHS14/4., WEL, all the reconstance of the reconstance of the lung.	rborne dust which with the methods degravimetric analysis SHH definition of a second research at a control of the control of t	espirable dust and inhalable II be collected when sampling escribed in MDHS14/4 Gene or respirable, thoracic and in ubstance hazardous to healt centration in air equal to or gust or 4 mg.m-3 8-hour TW/I be subject to COSHH if per Some dusts have been assign to comply with the appropriate of a wide range of sizes. The lar particle after entry into the conse that it elicits, depend on the period of the peri	g is undertaken ral methods for chalable aeroth includes dust reater than 10 A of respirable ople are exgned specific elimits., Most behaviour, thuman restor the nature or limit-setting proximates to a during breatheact. Respirable change region in in own assigned o specific short-
methanol	67-56-1	TWA	200 ppm	2006/15/EC
Further information	Indicative Ide	 ntifies the nossibility	260 mg/m3 of significant uptake through	the skin
T druici illioillation	maioanve, rae	TWA	200 ppm	GB EH40
Further information	Can be absor	had through the skin	266 mg/m3 The assigned substances a	re those for
T druici inionnation			mal absorption will lead to sy	
		STEL	250 ppm 333 mg/m3	GB EH40
Further information			. The assigned substances a mal absorption will lead to sy	
cobalt bis(2- ethylhexanoate)	136-52-7	TWA	0.1 mg/m3 (Cobalt)	GB EH40
Further information	and respirator responsivenes airways have sometimes ev symptoms can who are expossible to ide responsive. Stinguished fro people with proclude the dise asthmagens of HSE publication implicated in control of the second of the s	ry sensitisers) can in as via an immunolog become hyper-response in tiny quantities, a range in severity from the control of t	ational asthma (also known a duce a state of specific airwa ical irritant or other mechanist onsive, further exposure to the may cause respiratory sympom a runny nose to asthma. If the become hyper-responsive se who are likely to become cause occupational asthma se may trigger the symptoms of the responsive per-responsiveness, but where latter substances are not classes. Further information can ical assessments of the evident, Wherever it is reasonably per cause occupational asthma is	ay hyper- sm. Once the se substance, stoms. These Not all workers and it is im- hyper- should be dis- f asthma in ich do not in- assified as be found in the ence for agents bracticable,

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

vented. Where this is not possible, the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive. For substances that can cause occupational asthma. COSHH requires that exposure be reduced to as low as is reasonably practicable. Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance., Capable of causing occupational asthma., Capable of causing cancer and/or heritable genetic damage., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used., Carcinogenic applies for cobalt dichloride and sulphate., The 'Sen' notation in the list of WELs has been assigned only to those substances which may cause occupational asthma in the categories shown in Table 1. It should be remembered that other substances not in these tables may cause occupational asthma. HSE's asthma web pages (www.hse.gov.uk/asthma) provide further information. 108-31-6 TWA maleic anhydride 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		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 ef- fects, 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
methanol	Consumers	Oral	Long-term systemic effects	8 mg/kg
	Consumers	Oral	Acute systemic ef-	8 mg/kg

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

			fects	
	Consumers	Skin contact	Long-term systemic effects	8 mg/kg
	Consumers	Skin contact	Acute systemic ef- fects	8 mg/kg
	Workers	Skin contact	Long-term systemic effects	40 mg/kg
	Workers	Skin contact	Acute systemic ef- fects	40 mg/kg
	Consumers	Inhalation	Long-term systemic effects	50 mg/m3
	Consumers	Inhalation	Acute systemic ef- fects	50 mg/m3
	Workers	Inhalation	Long-term systemic effects	260 mg/m3
	Workers	Inhalation	Acute systemic ef- fects	260 mg/m3
	Consumers	Inhalation	Acute local effects	50 mg/m3
	Consumers	Inhalation	Long-term local ef- fects	50 mg/m3
	Workers	Inhalation	Acute local effects	260 mg/m3
	Workers	Inhalation	Long-term local ef- fects	260 mg/m3
oxybenzone	Workers	Inhalation	Long-term systemic effects	27.7 mg/m3
	Workers	Skin contact	Long-term systemic effects	39 mg/kg
	Consumers	Inhalation	Long-term systemic effects	6.8 mg/m3
	Consumers	Skin contact	Long-term systemic effects	20 mg/kg
	Consumers	Oral	Long-term systemic effects	2 mg/kg
cobalt bis(2- ethylhexanoate)	Workers	Inhalation	Long-term local ef- fects	0.2351 mg/m3
	Consumers	Inhalation	Long-term local ef- fects	0.0037 mg/m3
	Consumers	Oral	Long-term systemic effects	0.175 mg/kg bw/day

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
methanol	Fresh water	154 mg/l
	Marine water	15.4 mg/l

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

	Intermittent use/release	1.540 mg/l
	Fresh water sediment	570.4 mg/kg
	Sewage treatment plant	100 mg/l
	Soil	25.3 mg/kg
oxybenzone	Fresh water	0.0067 mg/l
	Marine water	0.00067 mg/l
	Sewage treatment plant	10 mg/l
	Fresh water sediment	0.066 mg/kg
	Marine sediment	0.0066 mg/kg
	Soil	0.013 mg/kg
cobalt bis(2-ethylhexanoate)	Fresh water	0.0006 mg/l
	Marine water	0.00236 mg/l
	Sewage treatment plant	0.37 mg/l
	Fresh water sediment	53.8 mg/kg dry weight (d.w.)
	Marine sediment	69.8 mg/kg dry weight (d.w.)
	Soil	10.9 mg/kg

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

Glove thickness : >= 0.4 mm

Directive : DIN EN 374

Protective index : Class 6

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

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

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

Respiratory protection : Apply technical measures to comply with the occupational

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)

Protective measures : Ensure that eye flushing systems and safety showers are

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 : liquid

Colour : transparent

Odour : characteristic

pH : not determined

Melting point/freezing point : 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

6.1 %(V)

flammability limit

Literary value styrene

Lower explosion limit / Lower

: 1.1 %(V)

flammability limit

Literary value styrene

Vapour pressure : 6.67 hPa (20 °C)

Literary value styrene

Density : ca. 1.1 g/cm3 (20 °C)

Solubility(ies)

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

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

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.

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.

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Product:

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

Method: Calculation method

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

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

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

Method: Calculation method

Components:

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

methanol:

Acute oral toxicity : Acute toxicity estimate: 100 mg/kg

Method: Expert judgement

LD50 (Rat): 5,628 mg/kg

Acute inhalation toxicity : LC50 (Rat): 83.8 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : Acute toxicity estimate: 300 mg/kg

Method: Expert judgement

LD50 Dermal (Rabbit): 15,800 mg/kg

oxybenzone:

Acute oral toxicity : LD50 Oral (Rat): > 12,800 mg/kg

Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 Dermal (Rabbit): > 16,000 mg/kg

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

Method: OECD Test Guideline 402

cobalt bis(2-ethylhexanoate):

Acute oral toxicity : LD50 (Rat): 3,129 mg/kg

Method: OECD Test Guideline 425

Acute dermal toxicity : LD50 (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

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

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

cobalt bis(2-ethylhexanoate):

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

Result : Moderate eye irritation

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified based on available information.

Components:

styrene:

Species : Guinea pig

Result : Does not cause skin sensitisation.

cobalt bis(2-ethylhexanoate):

Exposure routes : Skin contact

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

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- : Suspected of damaging the unborn child.

sessment

cobalt bis(2-ethylhexanoate):

Reproductive toxicity - As- : May damage fertility.

sessment

STOT - single exposure

May cause respiratory irritation.

Components:

styrene:

Assessment : May cause respiratory irritation.

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB/EN 28.04.2020 Date of first issue: 23.08.2019

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.

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

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

Exposure time: 72 h

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

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

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

Ecotoxicology Assessment

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

methanol:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 15,400 mg/l

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

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 10,000 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): ca.

22,000 mg/l

End point: Growth rate Exposure time: 96 h

Method: OECD Test Guideline 201

Toxicity to fish (Chronic tox-

icity)

NOEC: 450 mg/l Exposure time: 90 d

Species: Fish

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

NOEC: 208 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

oxybenzone:

Toxicity to fish : LC50 (Oryzias latipes (Orange-red killifish)): 3.8 mg/l

End point: mortality Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 1.87 mg/l

End point: Immobilization Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 0.67

mg/l

End point: Growth rate Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to microorganisms : EC50 (Bacteria): > 100 mg/l

Exposure time: 3 h

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Date of last issue: 18.03.2020 Version Revision Date: 2.0 GB/EN 28.04.2020 Date of first issue: 23.08.2019

cobalt bis(2-ethylhexanoate):

Toxicity to fish LC50 (Pimephales promelas (fathead minnow)): 48 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia dubia (water flea)): 0.61 mg/l

Exposure time: 48 h

Toxicity to algae EC50 (Pseudokirchneriella subcapitata (green algae)): 0.144

mg/l

End point: Growth rate Exposure time: 72 h

Toxicity to microorganisms EC10 (Bacteria): 3.73 mg/l

Exposure time: 3 h

Toxicity to fish (Chronic tox-

icity)

NOEC: 0.21 mg/l

End point: mortality Exposure time: 34 d

Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

NOEC: 0.0608 mg/l Exposure time: 21 d

ic toxicity)

Species: Daphnia magna (Water flea)

Ecotoxicology Assessment

Acute aquatic toxicity Very toxic to aquatic life.

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

maleic anhydride:

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

> 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

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

mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

NOEC: 10 mg/l Exposure time: 21 d

ic toxicity)

Species: Daphnia magna (Water flea)

Ecotoxicology Assessment

Chronic aquatic toxicity This product has no known ecotoxicological effects.

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

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.

methanol:

Biodegradability : Biodegradation: 97 %

Method: OECD Test Guideline 301D

oxybenzone:

Biodegradability : Biodegradation: 60 - 70 %

Exposure time: 28 d

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)

methanol:

Bioaccumulation : Species: Leuciscus idus (Golden orfe)

Bioconcentration factor (BCF): 10

oxybenzone:

Bioaccumulation : Species: Cyprinus carpio (Carp)

Exposure time: 70 d Concentration:> 1 mg/l

Bioconcentration factor (BCF): 39 - < 160

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

Method: OECD Test Guideline 305

Partition coefficient: n-

octanol/water

log Pow: 3.45 (40 °C)

pH: 7.71

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

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.

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

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

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

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

Labels : 3

IMDG

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

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

14.5 Environmental hazards

ADN

Environmentally hazardous : no

ADR

Environmentally hazardous : no

rid

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 : Not applicable

Concern for Authorisation (Article 59).

REACH - List of substances subject to authorisation : Not applicable

(Annex XIV)

Regulation (EC) No 1005/2009 on substances that de- : Not applicable

plete the ozone layer

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

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

lutants

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

preparations and articles (Annex XVII)

Not applicable

Conditions of restriction for the following entries should be considered:

Number on list 3

methanol (Number on list 69)

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

P5c FLAMMABLE LIQUIDS

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.

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

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.
H311	:	Toxic 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.
H331	:	Toxic if inhaled.
H332	:	Harmful if inhaled.
H334	:	May cause allergy or asthma symptoms or breathing difficul-
		ties if inhaled.
H335	:	May cause respiratory irritation.
H360F	:	May damage fertility.
11004-1	_	Over a start of at alone a single that you be a manabilled

H361d : Suspected of damaging the unborn child.

H370 : Causes damage to organs.

H372 : Causes damage to organs through prolonged or repeated

exposure.

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

H372 : Causes damage to organs through prolonged or repeated

exposure if inhaled.

H400 : Very toxic to aquatic life.

H411 : Toxic to aquatic life with long lasting effects.
H412 : Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Acute : Short-term (acute) aquatic hazard
Aquatic Chronic : Long-term (chronic) aquatic hazard

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

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

Skin Corr. : Skin corrosion
Skin Irrit. : Skin irritation
Skin 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

2006/15/EC : Europe. Indicative occupational exposure limit values

GB EH40 : UK. EH40 WEL - Workplace Exposure Limits

2004/37/EC / TWA : Long term exposure limit 2006/15/EC / TWA : Limit Value - eight hours

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, Bioaccumu-

according to Regulation (EC) No. 1907/2006



Carsystem Carbo Putty

Version Revision Date: Date of last issue: 18.03.2020 2.0 GB / EN 28.04.2020 Date of first issue: 23.08.2019

lative 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 m	ixture:	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 SE 3	H335	Calculation method		
STOT RE 1	H372	Calculation method		
Aquatic Chronic 3	H412	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 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.