

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 22.04.2013




V - 3

Revision: 22.04.2013

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

- **Product identifier**
 - **Trade name:** *CARSYSTEM Anti Rust Putty*
 - **Relevant identified uses of the substance or mixture and uses advised against** *Not determined*
 - **Application of the substance / the preparation** *Filler and surfacer*
 - **Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
Vosschemie GmbH
Esinger Steinweg 50
D-25436 Uetersen
Phone: +49 (0)4122 717 0; Fax: +49 (0)4122 717158; info@vosschemie.de
 - **Further information obtainable from:**
Abteilung Labor / +49 (0)4122 717 0
s.schaller@vosschemie.de
 - **Emergency telephone number:**
Giftinformationszentrum (GIZ)-Nord, Goettingen, Deutschland
Phone: +49 (0)551 19240, +49 (0)551 383180
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2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 -  **Xn; Harmful**
R20: *Harmful by inhalation.*
 -  **Xi; Irritant**
R36/38: *Irritating to eyes and skin.*
 -  **N; Dangerous for the environment**
R51/53: *Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*
 - R10: *Flammable.*

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· **Information concerning particular hazards for human and environment:**

Vapours of the product are heavier than air and may accumulate on the ground, in mines, drains or cellars with higher concentration.

Heightened risk of fire and danger of explosion at accumulation in lower-lying or closed rooms

Contact with skin and inhalation of aerosols/ vapours of the preparation should be avoided.

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

Has a narcotizing effect.

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· **Label elements**

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Code letter and hazard designation of product:**



Xn Harmful

N Dangerous for the environment

· **Risk phrases:**

10 Flammable.

20 Harmful by inhalation.

36/38 Irritating to eyes and skin.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Safety phrases:**

2 Keep out of the reach of children.

23 Do not breathe vapour/spray.

24/25 Avoid contact with skin and eyes.

29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

36/37 Wear suitable protective clothing and gloves.

46 If swallowed, seek medical advice immediately and show this container or label.

51 Use only in well-ventilated areas.

61 Avoid release to the environment. Refer to special instructions/safety data sheets.

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

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		(Contd. of page 2)
	polyester resin in styrene ☒ Xn R20; ☒ Xi R36/38 R10 ----- ☠ Flam. Liq. 3, H226; ☠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	10-30%
CAS: 100-42-5 EINECS: 202-851-5 Reg.nr.: 01-2119457861-32	styrene ☒ Xn R20-48/20-65; ☒ Xi R36/37/38 R10 ----- ☠ Flam. Liq. 3, H226; ☠ STOT RE 1, H372; Asp. Tox. 1, H304; ☠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	1-5%
CAS: 7779-90-0 EINECS: 231-944-3 Reg.nr.: 01-2119485044-40	trizinc bis(orthophosphate) ☠ N R50/53 ----- ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	1-5%
CAS: 1314-13-2 EINECS: 215-222-5 Reg.nr.: 01-2119463881-32	zinc oxide ☠ N R50/53 ----- ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	0.1-1%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

· **Description of first aid measures**

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Personal protection for the First Aider.

Take affected persons out of danger area and lay down.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Immediately remove any clothing soiled by the product.

· **After inhalation:**

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

Use skin protection cream for skin protection.

· **After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

Call a doctor immediately.

· **After swallowing:** Do not induce vomiting; call for medical help immediately.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Firefighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

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- **Special hazards arising from the substance or mixture**
Carbon monoxide and carbon dioxide
Formation of toxic gases is possible during heating or in case of fire.
Can form explosive gas-air mixtures.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
- **Additional information**
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Avoid contact with the eyes and skin.
Ensure adequate ventilation
Do not inhale gases / fumes / aerosols.
Keep away from ignition sources.
- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Send for recovery or disposal in suitable receptacles.
Do not seal receptacle gas tight.
Danger of bursting.
Dispose of the material collected according to regulations.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Fumes can combine with air to form an explosive mixture.
Flammable gas-air mixtures may form in empty receptacles.
Protect against electrostatic charges.
Vapours of the product are heavier than air and may accumulate on the ground, in mines, drains or cellars with higher concentration.

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- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Provide solvent resistant, sealed floor.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from oxidizing agents.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Store receptacle in a well ventilated area.
Protect from heat and direct sunlight.
Keep ignition sources away - Do not smoke.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**

Ingredients with limit values that require monitoring at the workplace:

100-42-5 styrene

WEL (Great Britain)	Short-term value: 1080 mg/m ³ , 250 ppm Long-term value: 430 mg/m ³ , 100 ppm
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DNELs

100-42-5 styrene

Oral	Long-term exposure - systemic effects	2.1 mg/kg bw/day (general population)
Dermal	Long-term exposure - systemic effects	343 mg/kg bw/day (general population) 406 mg/kg bw/day (worker)
Inhalative	Acute/short-term exposure - local effects	182.75 mg/m ³ (general population) 306 mg/m ³ (worker)
	Acute/short-term exposure - systemic effects	174.25 mg/m ³ (general population) 289 mg/m ³ (worker)
	Long-term exposure - systemic effects	10.2 mg/m ³ (general population) 85 mg/m ³ (worker)

7779-90-0 trizinc bis(orthophosphate)

Oral	Long-term exposure - systemic effects	0.83 mg/kg bw/day (general population)
Dermal	Long-term exposure - systemic effects	83 mg/kg bw/day (general population) 83 mg/kg bw/day (worker)
Inhalative	Long-term exposure - systemic effects	2.5 mg/m ³ (general population) 5 mg/m ³ (worker)

1314-13-2 zinc oxide

Oral	Long-term exposure - systemic effects	0.83 mg/kg bw/day (general population)
Dermal	Long-term exposure - systemic effects	83 mg/kg bw/day (general population) 83 mg/kg bw/day (worker)
Inhalative	Long-term exposure - systemic effects	2.5 mg/m ³ (general population) 5 mg/m ³ (worker)

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· PNECs	
100-42-5 styrene	
PNEC STP	5 mg/l (-)
PNEC aqua	0.028 mg/l (freshwater) 0.0028 mg/l (marine water) 0.04 mg/l (intermittent releases)
PNEC sediment	0.614 mg/kg (freshwater) 0.0614 mg/kg (marine water)
PNEC soil	0.2 mg/kg (soil dw)
7779-90-0 trizinc bis(orthophosphate)	
PNEC STP	0.052 mg/l (-)
PNEC aqua	0.0206 mg/l (freshwater) 0.0061 mg/l (marine water)
PNEC sediment	117.8 mg/kg (freshwater) 56.5 mg/kg (marine water)
PNEC soil	35.6 mg/kg (soil dw)
1314-13-2 zinc oxide	
PNEC STP	0.052 mg/l (-)
PNEC aqua	0.0206 mg/l (freshwater) 0.0061 mg/l (marine water)
PNEC sediment	117.8 mg/kg (freshwater) 56.5 mg/kg (marine water)
PNEC soil	35.6 mg/kg (soil dw)

· **Additional information:** The lists valid during the making were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Avoid contact with the eyes and skin.

Keep away from foodstuffs, beverages and feed.

Do not eat, drink, smoke or sniff while working.

Store protective clothing separately.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Use skin protection cream for skin protection.

· **Respiratory protection:**

Ensure good ventilation/exhaustion at the workplace.

Adhere to the workplace limit values and / or other threshold values.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter A/P2

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Check the permeability prior to each renewed use of the glove.

Preventive skin protection by use of skin-protecting agents is recommended.

· **Material of gloves**

Fluorocarbon rubber (Viton)

Empfohlene Materialstärke: ≥ 0.7 mm

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

Value for the permeation: Level ≤ 6 (≥ 480 min)

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Pasty

Colour: Red

· **Odour:** Characteristic

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 145 °C

· **Flash point:** 31 °C

· **Flammability (solid, gaseous):** Flammable.

· **Ignition temperature:** 480 °C

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

Lower: 1.1 Vol %

Upper: 6.1 Vol %

· **Vapour pressure at 20 °C:** ~ 7 hPa

· **Density at 20 °C:** 1.8-1.9 g/cm³

· **Solubility in / Miscibility with water:** Not miscible or difficult to mix.

· **Viscosity:**

Dynamic: Not determined.

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- | | |
|--------------------------|--|
| Kinematic: | Not determined. |
| Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity** No decomposition if used according to specifications.
- **Chemical stability** No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
Exothermic polymerization.
Fumes can combine with air to form an explosive mixture.
Reacts with acids, alkalis and oxidizing agents.
- **Conditions to avoid**
Protect from heat.
Avoid naked flames, sparks, other ignition sources and sunlight.
- **Incompatible materials:**
Reacts with alcohols, amines, aqueous acids and alkalis.
Reacts with oxidizing agents.
- **Hazardous decomposition products:**
Formation of toxic gases is possible during heating or in case of fire.
Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

100-42-5 styrene

Oral	LD50	5000 mg/kg (rat)
Dermal	LD 50	>2000 mg/kg (rat) (OECD 402)
Inhalative	LC50 /4h	11.8 mg/l (rat)

7779-90-0 trizinc bis(orthophosphate)

Oral	LD 50	>5000 mg/kg (rat)
Inhalative	LC 50 / 4h	> 5.7 mg/l (rat) (Mist/Dust)

1314-13-2 zinc oxide

Oral	LD 50	> 5000 mg/kg (rat)
	LD50	7950 mg/kg (mouse)
Inhalative	LC 50 / 4h	> 5.7 mg/l (rat) (Dust/Mist)

- **Primary irritant effect:**
- **on the skin:**
Irritant to skin and mucous membranes.
Repeated exposure may cause skin dryness or cracking.
- **on the eye:** Irritating effect.

· **Subacute to chronic toxicity:**

100-42-5 styrene

Inhalative	NOAEL (subacute)	0.85 mg/l (rat) (13w, 6h/day, Vapour)
	NOAEL (subchronic)	0.8 mg/l (rat) (OECD 453, 2a, 6h/day, Vapour)

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- **Additional toxicological information:**
Vapours may cause drowsiness and dizziness.
Has a narcotizing effect.
- **Sensitisation** No sensitizing effects known.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

· **Carcinogenicity****100-42-5 styrene**

Inhalative	NOAEL (carcinogenicity)	4.34 mg/l (rat) (OECD 453, 2a, 6h/day, 5d/week, Vapour)
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· **Reproductive toxicity/Fertility****100-42-5 styrene**

Inhalative	NOAEL (fertility)	0.65 mg/l (rat, parents) (OECD 416, Vapour)
		0.22 mg/l (rat, F2) (OECD 416, Vapour)
		2.2 mg/l (rat) (OECD 416, Parents, Vapour)

· **Reproductive toxicity/Teratogenicity****100-42-5 styrene**

Inhalative	NOAEL (developmental toxicity)	2.6 mg/l (rat)
	NOAEL (teratogenicity)	2.6 mg/l (rat)
	LOAEL (maternally)	1.3 mg/l (rat)

* **12 Ecological information**· **Toxicity**· **Aquatic toxicity:****100-42-5 styrene**

EC10/96h	0.28 mg/l (<i>Pseudokirchneriella subcapitata</i>) (EPA OTS 797.1050)
EC50/0.5h	≈ 500 mg/l (activated slugde) (OECD 209)
EC50/48h	4.7 mg/l (<i>daphnia magna</i>) (OECD 202)
EC50/72h	4.9 mg/l (<i>Pseudokirchneriella subcapitata</i>) (EPA OTS 797.1050)
LC50/96h	4.02 mg/l (<i>pimephales promelas</i>)
NOEC	34 mg/l (<i>Eisenia fetida</i>) (OECD - 207, 14d)
	1.01 mg/l (<i>daphnia magna</i>) (OECD-211 21d)

1314-13-2 zinc oxide

EC50	0.042 mg/l (<i>Pseudokirchneriella subcapitata</i>)
EC50/48h	3.2 mg/l (<i>daphnia magna</i>)
LC50/96h	2.17 mg/l (<i>oncorhynchus mykiss</i>)
NOEC	0.4 mg/l (<i>daphnia magna</i>) (48 h)

· **Persistence and degradability**

A part of the components are biodegradable

100-42-5 styrene

Biodegradation	70.9 % (activated slugde) (ISO DIN 9408, 28d, aerob)
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· **Behaviour in environmental systems:**· **Bioaccumulative potential****100-42-5 styrene**

BCF	74 (-) (calculated)
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log Kow	13.5 (fish) 2.95 (-)
· Mobility in soil	
100-42-5 styrene	
Koc	352 (-)
log Koc	2.55 (-)

· Additional ecological information:**· General notes:**

Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

· Results of PBT and vPvB assessment**· PBT:** Not applicable.**· vPvB:** Not applicable.**· Other adverse effects** No further relevant information available.**13 Disposal considerations****· Waste treatment methods****· Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· Waste disposal key:

The waste codes given above are to be considered recommendations; because of regional and industrial sector specific features, application of different waste codes is possible.

· European waste catalogue

08 01 11*	waste paint and varnish containing organic solvents or other dangerous substances
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· Uncleaned packaging:**· Recommendation:** Disposal must be made according to official regulations.**14 Transport information****· UN-Number****· ADR, IMDG, IATA**

UN1866

· UN proper shipping name**· ADR**

1866 RESIN SOLUTION, mixture

· IMDG, IATA

RESIN SOLUTION, mixture

· Transport hazard class(es)**· ADR****· Class**

3 Flammable liquids.

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· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3

· Packing group	III
· ADR, IMDG, IATA	III

· Environmental hazards:	
· Special marking (ADR):	Symbol (fish and tree)

· Special precautions for user	Warning: Flammable liquids.
· EMS Number:	F-E,S-D

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
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· Transport/Additional information:

· ADR	
· Limited quantities (LQ)	5L
· Transport category	3
· Tunnel restriction code	D/E

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations:
- Information about limitation of use:
 - Employment restrictions concerning juveniles must be observed.
 - Employment restrictions concerning pregnant and lactating women must be observed.
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
 - H226 Flammable liquid and vapour.
 - H304 May be fatal if swallowed and enters airways.
 - H315 Causes skin irritation.
 - H319 Causes serious eye irritation.
 - H332 Harmful if inhaled.
 - H335 May cause respiratory irritation.
 - H372 Causes damage to organs through prolonged or repeated exposure.
 - H400 Very toxic to aquatic life.
 - H410 Very toxic to aquatic life with long lasting effects.
- R10 Flammable.

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R20 Harmful by inhalation.

R36/37/38 Irritating to eyes, respiratory system and skin.

R36/38 Irritating to eyes and skin.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

· **Department issuing MSDS:** Abteilung Labor

· **Contact:** Frau S. Schaller

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· *** Data compared to the previous version altered.**

GB