

# CARAPAX PI

## Moisture curing phosphat primer

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

- **Date of compilation:** 20.05.2014
- **1.1 Product identifier**
- **Trade name:** CARAPAX PI Phosphatprimer
- **Article number(s):** SIS CP 00 220PR
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation:** Paint
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer / Supplier:**  
SISTEC Coatings GmbH  
Mauserstrasse 6/1  
71640 Ludwigsburg  
GERMANY
- **E-mail address of the competent person responsible for the Safety Data Sheet:**  
info@sistec-coatings.de
- **Informing department:** Laboratory
- **1.4 Emergency telephone number:**  
As above or next toxicological information centre.  
+49 (0)30 - 45 05 35 55

### SECTION 2: HAZARDS IDENTIFICATION

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

• **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xn; Sensitising

R42: May cause sensitisation by inhalation.



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R10: Flammable.

• **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.

• **Classification system:**

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.

• **2.2 Label elements**

• **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

• **Hazard pictograms**



GHS02 GHS08 GHS09

• **Signal word** Danger

• **Hazard-determining components of labelling:**

p-toluenesulphonyl isocyanate

• **Hazard statements**

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H411 Toxic to aquatic life with long lasting effects.

• **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

- P243 Take precautionary measures against static discharge.  
 P285 In case of inadequate ventilation wear respiratory protection.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P273 Avoid release to the environment.  
 P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

**- Additional information:**

Contains isocyanates. May produce an allergic reaction.

**- 2.3 Other hazards**

**- Results of PBT and vPvB assessment**

- **PBT:** Not applicable.












- **vPvB:** Not applicable.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**- 3.2 Chemical characterization: Mixtures**

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

**- Dangerous components:**

CAS: 1330-20-7 EINECS: 215-535-7 Index number: 601-022-00-9	Xylene, mixture of isomers  Xn R20/21;  Xi R38 R10  Flam. Liq. 3, H226;  Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	3-<10%
CAS: 108-65-6 EINECS: 203-603-9 Index number: 607-195-00-7	1-Methoxy-2-propyl acetat R10  Flam. Liq. 3, H226	3-<10%
CAS: 7779-90-0 EINECS: 231-944-3 Index number: 030-011-00-6	Trizink bis(orthophosphat)  N R50/53  Aquatic Acute 1, H400; Aquatic Chronic 1, H410	3-<10%
CAS: 4083-64-1 EINECS: 223-810-8 Index number: 615-012-00-7	p-toluenesulphonyl isocyanate  Xi R36/37/38;  Xn R42 R14  Resp. Sens. 1, H334;  Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≤ 2,5%
CAS: 14808-60-7 EINECS: 238-878-4	Quartz (SiO <sub>2</sub> )	3-<10%

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

**SECTION 4: FIRST AID MEASURES**

**- 4.1 Description of first aid measures**

**- General information:**

Immediately remove any clothing contaminated by the product.

**- After inhalation:**

Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

**- After skin contact:**

Instantly wash with water and soap and rinse thoroughly.  
If skin irritation occurs: Get medical advice/attention.  
Take off contaminated clothing and wash before reuse.

**- After eye contact:**

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

**- After swallowing:**

Rinse out mouth and then drink plenty of water.  
Do NOT induce vomiting.  
Call a POISON CENTER/doctor if you feel unwell.

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

**- 4.3 Indication of any immediate medical attention and special treatment needed** symptomatic treatment

## SECTION 5: FIREFIGHTING MEASURES

**- 5.1 Extinguishing media**

**- Suitable extinguishing agents**

Carbon dioxide (CO<sub>2</sub>), extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.

**- For safety reasons unsuitable extinguishing agents** Water with a full water jet.

**- 5.2 Special hazards arising from the substance or mixture**

Can be released in case of fire:  
Nitrogen oxides (NO<sub>x</sub>)  
Oxides of phosphorus (P<sub>x</sub>O<sub>y</sub>)  
Sulphur oxides (SO<sub>x</sub>)  
Carbon monoxide (CO) and Carbon dioxide (CO<sub>2</sub>)  
Zinc oxide fumes  
Can form explosive vapour-air mixtures.

**- 5.3 Advice for firefighters**

**- Protective equipment:** Wear self-contained breathing apparatus.

**- Additional information**

Cool endangered containers with water spray jet.  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
If without risk possible, move drums with material away from dangerous area.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**- 6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation.  
Remove all ignition sources.



Do not breathe vapour.  
Avoid contact with skin, eyes and clothes.

**- 6.2 Environmental precautions:**

Do not allow to enter drainage system, surface or ground water.  
Inform respective authorities in case product reaches water or sewage system.  
Prevent material from reaching sewage system, holes and cellars.

**- 6.3 Methods and material for containment and cleaning up:**

Ensure adequate ventilation.  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Send for recovery or disposal in suitable containers.  
Dispose of the material collected according to regulations.

**- 6.4 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 information on disposal.

## SECTION 7: HANDLING AND STORAGE

**- 7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.  
Ensure good interior ventilation, especially at floor level (fumes are heavier than air).  
Restrict the quantity stored in the work place.  
Use only in well ventilated areas.  
Do not breathe vapour/spray.  
Do not get in eyes, on skin, or on clothing  
Make sure that all applicable workplace limits are observed.

**- Information about protection against explosions and fires:**

Fumes can combine with air to form an explosive mixture.  
Flammable fume/air mixtures may be formed in empty containers.  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.

**- 7.2 Conditions for safe storage, including any incompatibilities**

**- Storage**

**- Requirements to be met by storerooms and containers:**

Observe regulations for storage of flammable liquids.  
Observe all local and national regulations for storage of water polluting products.

**- Information about storage in one common storage facility:**

Store away from foodstuffs.  
Store away from oxidizing agents.

**- Further information about storage conditions:**

Store container in a well ventilated position.  
Store in cool, dry conditions in well sealed containers.  
Protect from heat and direct sunlight.

**- 7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Additional information about design of technical systems:** No further data; see item 7.

**- 8.1 Control parameters**

**- Components with critical values that require monitoring at the workplace:**

**1330-20-7 Xylene, mixture of isomers**

WEL (Great Britain)	Short-term value: 441 mg/m <sup>3</sup> , 100 ppm Long-term value: 220 mg/m <sup>3</sup> , 50 ppm Sk; BMGV
IOELV (European Union)	Short-term value: 442 mg/m <sup>3</sup> , 100 ml/m <sup>3</sup> Long-term value: 221 mg/m <sup>3</sup> , 50 ml/m <sup>3</sup> Skin

**108-65-6 1-Methoxy-2-propyl acetate**

WEL (Great Britain)	Short-term value: 548 mg/m <sup>3</sup> , 100 ppm Long-term value: 274 mg/m <sup>3</sup> , 50 ppm Sk
IOELV (European Union)	Short-term value: 550 mg/m <sup>3</sup> , 100 ppm Long-term value: 275 mg/m <sup>3</sup> , 50 ppm Skin

**4083-64-1 p-toluenesulphonyl isocyanate**

WEL (Great Britain)	Short-term value: 0.07 mg/m <sup>3</sup> Long-term value: 0.02 mg/m <sup>3</sup> Sen; as -NCO
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**- DNELs**

**108-65-6 1-Methoxy-2-propyl acetate**

Oral DNEL	long-term exposure - systemic effects	1.67 mg/kg bw/d (general population)
Dermal DNEL	long-term exposure - systemic effects	54.8 mg/kg bw/d (general population) 153.5 mg/kg bw/d (worker)
Inhalative DNEL	long-term exposure - systemic effects	33 mg/m <sup>3</sup> (general population) 275 mg/m <sup>3</sup> (worker)

**- PNECs**

**108-65-6 1-Methoxy-2-propyl acetate**

PNEC	0.635 mg/l (aqua (freshwater)) 0.0635 mg/l (aqua (marine water)) 3.29 mg/kg (sediment (freshwater)) 0.329 mg/kg (sediment (marine water)) 0.29 mg/kg (soil) 100 mg/l (STP (sewage treatment plant))
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**- Ingredients with biological limit values:**

**1330-20-7 Xylene, mixture of isomers**

BMGV (Great Britain)	650 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: methyl hippuric acid
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**- 8.2 Exposure controls**

**- Personal protective equipment**

**- General protective and hygienic measures**

- Keep away from foodstuffs, beverages and food.
- Do not eat, drink or smoke while working.
- Instantly remove any contaminated garments.
- Do not inhale gases / fumes / aerosols.
- Avoid contact with the eyes and skin.
- Wash hands during breaks and at the end of the work.
- Do not carry cleaning cloths impregnated with the product in trouser pockets.
- Use skin protection cream for preventive skin protection.

**- Breathing equipment:**

If all workplace limits are observed and good ventilation is ensured, no special precautions necessary.

**- Protection of hands:**

- Protective gloves
- To avoid skin problems reduce the wearing of gloves to the required minimum.
- Sensibilization by the components in the glove materials is possible.
- Check the permeability prior to each renewed use of the glove.
- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
- Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

**- Material of gloves**

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**

- Protective gloves should be replaced at first signs of wear.
- 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 safety glasses

**- Body protection:** Body protection must be chosen depending on activity and possible exposure.

**- Limitation and supervision of exposure into the environment**

- Do not allow to enter drainage system, surface or ground water.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**- 9.1 Information on basic physical and chemical properties**

**- General Information**

**- Appearance:**

- Form:** liquid
- Colour:** grey

**- Smell:** solvent-like

**- Odour threshold:** not determined

**- pH-value:** not determined

**- Change in condition**

- Melting point/Melting range:** not determined
- Boiling point/Boiling range:** not determined

- **Flash point:** > 23 °C
- **Inflammability (solid, gaseous)** not applicable
- **Ignition temperature:** not determined
- **Decomposition temperature:** Not determined.
- **Self-inflammability:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures is possible.
  
- **Critical values for explosion:**
  - Lower:** Not determined.
  - Upper:** Not determined.
- **Oxidizing properties** none
- **Vapor pressure:** Not determined.
- **Density at 20 °C:** ~ 1.45 g/cm<sup>3</sup>
- **Relative density at 20 °C** ~ 1.45 g/cm<sup>3</sup> (H<sub>2</sub>O = 1)
- **Vapour density (AIR = 1):** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with Water:** not miscible or difficult to mix
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - dynamic:** not determined
  - kinematic at 20 °C:** not determined
- **9.2 Other information** No further relevant information available.

## SECTION 10: STABILITY AND REACTIVITY

- **10.1 Reactivity** see 10.3
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
Avoid impact, friction, heat, sparks, electrostatic charges.
- **10.3 Possibility of hazardous reactions**  
Flammable vapour-air mixtures may develop.  
Used empty containers may contain product gases which form explosive mixtures with air.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** Strong oxidizing agents
- **10.6 Hazardous decomposition products:**  
Nitrogen oxides (NO<sub>x</sub>)  
Phosphorus oxides (e.g. P<sub>2</sub>O<sub>5</sub>)  
Sulphur oxides (SO<sub>x</sub>)  
Carbon monoxide (CO) and Carbon dioxide (CO<sub>2</sub>)  
Zinc oxide fumes



## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**1330-20-7 Xylene, mixture of isomers**

Oral	LD50	8700 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)
Inhalativ	LC50/4 h	6350 mg/l (rat)

**108-65-6 1-Methoxy-2-propyl acetat**

Oral	LD50	> 5000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)

**7779-90-0 Trizink bis(orthophosphat)**

Oral	LD50	> 5000 mg/kg (rat)
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- **Primary irritant effect:**

- **on the skin:** Causes skin irritation.

- **on the eye:** Short time, reversible irritating effect.

- **Subacute to chronic toxicity:** not classified

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:  
Sensitising

- **Sensitisation** May cause sensitisation by inhalation.

- **Repeated dose toxicity** not classified

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**

According to present knowledge no CMR-effects known.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

- **Aquatic toxicity:**

**1330-20-7 Xylene, mixture of isomers**

EC50	1 - 10 mg/l (bacteria)
EC50/24 h	165 mg/l (water flea (daphnia magna))
IC50/72 h	1 - 10 mg/l (algae)
LC50/48 h	86 mg/l (Leuciscus idus)
LC50/96 h	14 mg/l (rainbow trout (oncorhynchus mykiss))

**108-65-6 1-Methoxy-2-propyl acetat**

EC50/48 h	> 500 mg/l (water flea (daphnia magna))
LC50/96 h	134 mg/l (rainbow trout (oncorhynchus mykiss))

- **12.2 Persistence and degradability** No further relevant information available.

- **12.3 Bioaccumulative potential** No further relevant information available.

- **12.4 Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**  
Toxic to aquatic life with long lasting effects.  
Water hazard class 2 (Self-assessment): hazardous for water
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

## SECTION 13: DISPOSAL CONSIDERATIONS

- **13.1 Waste treatment methods**
- **Recommendation** Disposal must be made according to official regulations.
- **European waste catalogue:**  
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.
- **Uncleaned packagings:**
- **Recommendation:**  
Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.  
Packagings that cannot be cleaned are to be disposed of in the same manner as the product.


## SECTION 14: TRANSPORT INFORMATION

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1263
- **14.2 UN proper shipping name**
- **ADR** UN1263 PAINT, ENVIRONMENTALLY HAZARDOUS, SPECIAL PROVISION 640E
- **IMDG** PAINT (Trizinc bis(orthophosphate)), hydrodesulfurized heavy), MARINE POLLUTANT
- **IATA** PAINT
- **14.3 Transport hazard class(es)**
- **ADR**



- **Class** 3 (F1) Flammable liquids
- **Label** 3
- **IMDG**



- Class	3 Flammable liquids.
- Label	3
- IATA	
	
- Class	3 Flammable liquids
- Label	3
- 14.4 Packing group	
- ADR, IMDG, IATA	III
- 14.5 Environmental hazards:	Product contains environmentally hazardous substances: Trizinc bis(orthophosphate)
- Marine pollutant:	YES Symbol (fish and tree)
- Special marking (ADR):	Symbol (fish and tree)
- 14.6 Special precautions for user	Warning: Flammable liquids.
- Kehler Number:	30
- EMS Number:	F-E,S-E
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.
- Transport/Additional information:	Transport by post may be prohibited or restricted.
- ADR	
- Excepted quantities (EQ):	E1
- Limited quantities (LQ):	5L
- Transport category:	3
- Tunnel restriction code:	D/E
- UN "Model Regulation":	UN1263, PAINT, SPECIAL PROVISION 640E, ENVIRONMENTALLY HAZARDOUS, 3, III

## SECTION 15: REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations
- Information about limitation of use: Employment restrictions concerning young persons must be observed.
- Decree to be applied in case of technical fault:  
Quantity limits according to "EC Seveso directive" should be observed.
- Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## SECTION 16: OTHER INFORMATION

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

### - Relevant phrases

The(se) R- resp. H-phrases are those of the ingredient(s) and do(es) not necessarily represent the classification of the preparation/mixture.

H226 Flammable liquid and vapour.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

R10 Flammable.

R14 Reacts violently with water.

R20/21 Harmful by inhalation and in contact with skin.

R38 Irritating to skin.

R42 May cause sensitisation by inhalation.

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

### - Department issuing MSDS:

SISTEC Coatings GmbH

Mausersstraße 6/1

71640 Ludwigsburg

GERMANY

### - Abbreviations and acronyms:

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

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2