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

#### 1.1 Product identifier

· Trade name: SILICON PRIMER

<sup>•</sup> 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

· Application of the substance / the mixture Coating

#### 1.3 Details of the supplier of the safety data sheet

• Manufacturer/Supplier: BEKO GMBH RAPPENFELDSTRASSE 5 DE-86653 MONHEIM

- **Further information obtainable from:** Tel: + 49 9091 90898-0 Fax: + 49 9091 9089829
- \* 1.4 Emergency telephone number: Poison Control Center Mainz Tel: +49 (0) 6131/19240

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008
- Flam, Liq, 2 H225 Highly flammable liquid and vapour. Skin Irrit. 2 H315 Causes skin irritation. Eye Dam. 1 H318 Causes serious eye damage. Repr. 2 H361d Suspected of damaging the unborn child. STOT SE 3 H336 May cause drowsiness or dizziness. Asp. Tox. 1 H304 May be fatal if swallowed and enters airways. Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

#### 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** 



#### · Signal word Danger

· Hazard-determining components of labelling:

C7 - C10 izoalkan

titanium tetrabutanolate toluene

#### Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H361d Suspected of damaging the unborn child.

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

#### Precautionary statements P101 If medica

If medical advice is needed, have product container or label at hand.

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P102	Keep out of reach of children.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition
	sources. No smoking.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting] equipment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P302+P352	IF ON SKIN: Wash with plenty of water/soap.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
	lenses, if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P403	Store in a well-ventilated place.
P501	Dispose of contents/container to in accordance with local/regional/national/
	international regulation.
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#### <sup>2</sup>2.3 Other hazards

· Results of PBT and vPvB assessment Not applicable.

## **SECTION 3: Composition/information on ingredients**

#### **3.2 Chemical characterisation: Mixtures**

· Description: Solvent mixture with additives

<ul> <li>Dangerous components:</li> </ul>		
CAS: 90622-56-3	C7 - C10 izoalkan	75-85%
EINECS: 292-458-5	Asp. Tox. 1, H304;  Aquatic Chronic 2, H411;  Skin Irrit. 2, H315; STOT SE 3, H336	
CAS: 5593-70-4	titanium tetrabutanolate	5-10%
EINECS: 227-006-8	♦ Flam. Liq. 3, H226; ♦ Eye Dam. 1, H318; ♦ Skin Irrit. 2, H315; STOT SE 3, H335-H336	
CAS: 108-88-3	toluene	3-5%
EINECS: 203-625-9	♦ Flam. Liq. 2, H225; H373; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336	
CAS: 78-10-4	tetraethyl silicate	1-2%
EINECS: 201-083-8 Reg.nr.: 01-2119496195-28-	Flam. Liq. 3, H226; Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335	
A shallf have a hind a superation of the second	the wording of the listed bezord phrases refer to eastion 16	

• Additional information: For the wording of the listed hazard phrases refer to section 16.

#### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

- · After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- After swallowing: If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

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## 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

#### SECTION 5: Firefighting measures

#### <sup>·</sup> 5.1 Extinguishing media

Suitable extinguishing agents:

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

- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- 5.3 Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.
- Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

#### SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system. Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

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 disposal information.

## **SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.
- **Information about fire and explosion protection:** 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 receptacles:** Store in a cool location. Store only in the original receptacle.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep container tightly sealed. Store in cool, dry conditions in well sealed receptacles.

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

#### **SECTION 8: Exposure controls/personal protection**

• Additional information about design of technical facilities: No further data; see item 7.

#### <sup>•</sup>8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

#### CAS: 108-88-3 toluene

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WEL Short-term value: 384 mg/m<sup>3</sup>, 100 ppm Long-term value: 191 mg/m<sup>3</sup>, 50 ppm

#### CAS: 78-10-4 tetraethyl silicate

WEL Long-term value: 44 mg/m<sup>3</sup>, 5 ppm

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

#### <sup>•</sup> 8.2 Exposure controls

- Personal protective equipment:
- General protective and hygienic measures:
- Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing
- Wash hands before breaks and at the end of work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

Respiratory protection:

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.

## · Protection of hands:



Protective gloves

Protective gloves according to EN 374

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.

#### Penetration time of glove material

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

Eye protection:



Tightly sealed goggles

Wear airtight protective goggles EN 166 • **Body protection:** Protective work clothing

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SECTION 9: Physical and chemi	cal properties		
• 9.1 Information on basic physical and chemical properties • General Information • Appearance:			
Form:	Fluid		
Colour:	Light yellow		
· Odour:	Weak, characteristic		
· Odour threshold:	Not determined.		
<sup>·</sup> pH-value:	Not determined.		
<ul> <li>Change in condition Melting point/freezing point: Initial boiling point and boiling range</li> </ul>	Undetermined. : < 35 °C		
· Flash point:	0° C		
· Flammability (solid, gas):	Not applicable.		
· Ignition temperature:	535 °C		
· Decomposition temperature:	Not determined.		
· Auto-ignition temperature:	Product is not selfigniting.		
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.		
· Explosion limits: Lower: Upper:	Not determined. Not determined.		
· Vapour pressure:	Not determined.		
· Density at 20 °C:	0.756 g/cm³		
Relative density	Not determined.		
· Vapour density	Not determined.		
· Evaporation rate	Not determined.		
<ul> <li>Solubility in / Miscibility with water:</li> </ul>	Fully miscible.		
· Partition coefficient: n-octanol/water:	Not determined.		
· Viscosity:			
Dynamic:	Not determined.		
Kinematic:	Not determined.		
<sup>•</sup> 9.2 Other information	No further relevant information available.		

## **SECTION 10: Stability and reactivity**

\* 10.1 Reactivity No further relevant information available.

10.2 Chemical stability

• Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

\* **10.3 Possibility of hazardous reactions** No dangerous reactions known.

• 10.4 Conditions to avoid No further relevant information available.

\* **10.5 Incompatible materials:** No further relevant information available.

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#### 10.6 Hazardous decomposition products:

No dangerous decomposition products known.

## **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

· Acute toxicity Based on available data, the classification criteria are not met.

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

CAS: 5593-70-4 titanium tetrabutanolat	e
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Oral LD50 3,122 mg/kg (rat)

CAS: '	108-88-3	to	luene
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Oral	LD50	5,000 mg/kg (rat)
Dermal	LD50	12,124 mg/kg (rabbit)

Inhalative LC50/4 h 5,320 mg/l (mouse)

CAS: 78-10-4 tetraethyl silicate

Oral LD50 6,270 mg/kg (rat)

Dermal LD50 5,878 mg/kg (rabbit)

- · Primary irritant effect:
- Skin corrosion/irritation
- Causes skin irritation.

Serious eye damage/irritation

- Causes serious eye damage.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity

Suspected of damaging the unborn child.

- · STOT-single exposure
- May cause drowsiness or dizziness.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard
- May be fatal if swallowed and enters airways.

## **SECTION 12: Ecological information**

- 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- <sup>•</sup> **12.2 Persistence and degradability** No further relevant information available.
- <sup>•</sup> **12.3 Bioaccumulative potential** No further relevant information available.
- <sup>•</sup> **12.4 Mobility in soil** No further relevant information available.
- · Ecotoxical effects:
- · Remark: Toxic for fish
- · Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water 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. Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

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\* **12.6 Other adverse effects** No further relevant information available.

#### **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

#### · Recommendation

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

#### European waste catalogue

08 02 99 wastes not otherwise specified

#### · Uncleaned packaging:

• **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport informa	ition		
· <b>14.1 UN-Number</b> · ADR, IMDG, IATA	UN1993		
<ul> <li>14.2 UN proper shipping name</li> <li>ADR</li> <li>IMDG, IATA</li> </ul>	1993 FLAMMABLE LIQUID, N.O.S. (C7 - C10 izoalkan, TOLUENE), ENVIRONMENTALLY HAZARDOUS FLAMMABLE LIQUID, N.O.S. (C7 - C10 izoalkan, TOLUENE)		
<sup>•</sup> 14.3 Transport hazard class(es)	,		
· ADR, IMDG, IATA · Class · Label	3 Flammable liquids. 3		
<ul> <li>14.4 Packing group</li> <li>ADR, IMDG, IATA</li> </ul>	11		
<sup>•</sup> 14.5 Environmental hazards: • Marine pollutant:	Product contains environmentally hazardous substances: C7 - C10 izoalkan Yes		
• 14.6 Special precautions for user Warning: Flammable liquids.			
UN "Model Regulation":	UN1993, FLAMMABLE LIQUID, N.O.S. (C7 - C10 izoalkan, TOLUENE), ENVIRONMENTALLY HAZARDOUS, 3, I		

## **SECTION 15: Regulatory information**

## <sup>•</sup> 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

No further relevant information available.

<sup>15.2</sup> Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

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SECTION 16: Other information	
This information is based on our present knowledge. However, this shall not constitute a guarant for any specific product features and shall not establish a legally valid contractual relationship.	tee
· Relevant phrases	
H225 Highly flammable liquid and vapour.	
H226 Flammable liquid and vapour.	
H304 May be fatal if swallowed and enters airways.	
H315 Causes skin irritation.	
H318 Causes serious eye damage.	
H319 Causes serious eye irritation.	
H332 Harmful if inhaled.	
H335 May cause respiratory irritation.	
H336 May cause drowsiness or dizziness.	
H361d Suspected of damaging the unborn child.	
H373 May cause damage to organs through prolonged or repeated exposure.	
H411 Toxic to aquatic life with long lasting effects.	
· Abbreviations and acronyms:	
Flam. Liq. 2: Flammable liquids – Category 2 Flam. Liq. 3: Flammable liquids – Category 3	
Acute Tox. 4: Acute toxicity - inhalation – Category 4	
Skin Irrit. 2: Skin corrosion/irritation – Category 2	
Eye Dam. 1: Serious eye damage/eye irritation – Category 1	
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2 Repr. 2: Reproductive toxicity – Category 2	
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3	
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2	
Asp. Tox. 1: Aspiration hazard – Category 1	
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2	G