

according to Regulation (EC) No 1907/2006

Systopp - Floorprimer 1k PU

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

1.1. Product identifier

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

Use of the substance/mixture

Building and construction preparations not covered elsewhere.

Coatings and paints, fillers, putties, thinners

1.3. Details of the supplier of the safety data sheet

Company name: KNOPP GmbH

Street: Adolf - Oesterheld - Straße 1
Place: D-97337 DETTELBACH

Post-office box: 1180

D-97337 DETTELBACH

Telephone: +49(0)932491990 Telefax: +49(0)9324919966

e-mail: info@knopp-chemie.com
Internet: www.knopp-chemie.com

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2 Respiratory or skin sensitisation: Resp. Sens. 1 Respiratory or skin sensitisation: Skin Sens. 1

Carcinogenicity: Carc. 2

Specific target organ toxicity - single exposure: STOT SE 3
Specific target organ toxicity - repeated exposure: STOT RE 2

Hazard Statements:
Harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation.

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

May cause an allergic skin reaction. Suspected of causing cancer. May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements

Hazard components for labelling

Reaction mass of 4,4'-methylenediphenyldisocyanate and o-(p-isocyanatobenzyl)phenylisocyanate

Poly[oxy(mehyl- 1, 2-ethanediyl)],.alpha.-hydro-.omega.-hydroxy-, polymer with

1,1'-methylenebis[isocyanatobenzene]

4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate 100 %

Isocyanic acid, polymethylenepolyphenyleneester

Benzene, 1,1'-methylenebis[isocyanato]-, polymer with 1,2-ethanediamine, methoxirane and oxirane

Signal word: Danger

Pictograms: GHS07-GHS08



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Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
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.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

ecautionary statements	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

P284 Wear respiratory protection.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor. P501 Dispose of contents/container to an appropriate recycling or disposal facility.

Special labelling of certain mixtures

EUH204 Contains isocyanates. May produce an allergic reaction.

SECTION 3: Composition/information on ingredients

3.2. Mixtures



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Hazardous components

Chemical name	Quantity
Classification according to Directive 67/548/EEC	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	\exists
Reaction mass of 4,4'-methylenediphenyldisocyanate and o- (p-isocyanatobenzyl)phenylisocyanate	30 - 60 %
Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H335 H373	
Poly[oxy(mehyl- 1, 2-ethanediyl)],.alphahydroomegahydroxy-, polymer with 1,1'-methylenebis[isocyanatobenzene]	13 - 30 %
Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373	
Isocyanic acid, polymethylenepolyphenyleneester	13 - 30 %
Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373	
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate 100 %	10 - 30 %
Carc. Cat. 3, Xn - Harmful, Xi - Irritant R40-20-48/20-36/37/38-42/43	
Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373	
Benzene, 1,1'-methylenebis[isocyanato]-, polymer with 1,2-ethanediamine, methoxirane and oxirane	10 - 30 %
Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE	-
	Classification according to Directive 67/548/EEC Classification according to Regulation (EC) No. 1272/2008 [CLP] Reaction mass of 4,4'-methylenediphenyldisocyanate and o-(p-isocyanatobenzyl)phenylisocyanate Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H335 H373 Poly[oxy(mehyl- 1, 2-ethanediyl)], alphahydroomegahydroxy-, polymer with 1,1'-methylenebis[isocyanatobenzene] Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373 Isocyanic acid, polymethylenepolyphenyleneester Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate 100 % Carc. Cat. 3, Xn - Harmful, Xi - Irritant R40-20-48/20-36/37/38-42/43 Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373 Benzene, 1,1'-methylenebis[isocyanato]-, polymer with 1,2-ethanediamine, methoxirane and oxirane

Full text of R, H and EUH phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air. In case of breathing difficulties administer oxygen. Medical treatment necessary.

After contact with skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Medical treatment necessary.

After contact with eyes

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.



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5.2. Special hazards arising from the substance or mixture

The product itself does not burn.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protective suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.

Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
-	Isocyanates, all (as -NCO) Except methyl isocyanate	-	0.02		TWA (8 h)	WEL
		-	0.07		STEL (15 min)	WEL

8.2. Exposure controls

Occupational exposure controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

Respiratory protection

Work in well-ventilated zones or use proper respiratory protection.

Hand protection

Before using check leak tightness / impermeability.

Breakthrough times and swelling properties of the material must be taken into consideration.



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Single-use gloves.

Suitable material: NBR (Nitrile rubber).

Eye protection

Suitable eye protection: Tightly sealed safety glasses.

Skin protection

Suitable protective clothing:

Overall. Chemical resistant safety shoes. Take off immediately all contaminated clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid Colour: brown Odour: earthy

Test method

not applicable pH-Value:

Changes in the physical state

190 °C Initial boiling point and boiling range: 496 °C Flash point: Lower explosion limits: 0.4 Ignition temperature: > 150 °C 0,000004 hPa Vapour pressure: (at 20 °C)

Vapour pressure:

0,00015 hPa

(at 50 °C)

1,16 g/cm³ Density: Water solubility: not applicable Partition coefficient: Reacts with: Water. 180 - 260 mPa·s Viscosity / dynamic:

9.2. Other information

Solid content: 100 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with: Water.

10.3. Possibility of hazardous reactions

In case of exceeding the storage temperature: hazardous polymerization.

10.4. Conditions to avoid

Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity.

10.5. Incompatible materials

Avoid contact with water. Acid, concentrated. strong alkalis Amines.

SECTION 11: Toxicological information



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11.1. Information on toxicological effects

Acute toxicity

Acute toxicity, inhalant.

CAS No	Chemical name					
	Exposure route	Method	Dose	Species	Source	
	Reaction mass of 4,4'-methylenediphenyldisocyanate and o-(p-isocyanatobenzyl)phenylisocyanate					
	inhalation vapour	ATE	11 mg/l			
	inhalation aerosol	ATE	1,5 mg/l			
39420-98-9	Poly[oxy(mehyl- 1, 2-ethanediyl)],.alphahydroomegahydroxy-, polymer with 1,1'-methylenebis[isocyanatobenzene]					
	inhalation vapour	ATE	11 mg/l			
	inhalation aerosol	ATE	1,5 mg/l			
9016-87-9	Isocyanic acid, polymethylenepolyphenyleneester					
	inhalation vapour	ATE	11 mg/l			
	inhalation aerosol	ATE	1,5 mg/l			
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate 100 %					
	oral	LD50	9200 mg/kg	Rat	GESTIS	
	inhalation vapour	ATE	11 mg/l			
	inhalation aerosol	ATE	1,5 mg/l			
	Benzene, 1,1'-methylenebis[isocyanato]-, polymer with 1,2-ethanediamine, methoxirane and oxirane					
	inhalation vapour	ATE	11 mg/l			
	inhalation aerosol	ATE	1,5 mg/l			

Irritation and corrosivity

Irritating to eyes. Following inhalation: Lung irritation. Coughing. shortage of breath. After skin contact: irritant.

Sensitising effects

May cause sensitization by inhalation and skin contact.

Carcinogenic/mutagenic/toxic effects for reproduction

May cause cancer.

Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 12: Ecological information

12.1. Toxicity

LC50: Brachydanio rerio (zebra-fish) Exposure time: 96 h: > 1000 mg/l

EC50: Daphnia magna Exposure time: 24 h: > 1000 mg/l

NOEC: Desmodesmus subspicatus Inhibition of growth rate. 72 h: 1640 m/l

12.5. Results of PBT and vPvB assessment

This substance does not meet the criteria for classification as PBT or vPvB.

Further information

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 13: Disposal considerations



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13.1. Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation.

Contaminated packaging

Water (with cleaning agent). Completely emptied packages can be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

Other applicable information (land transport)

Not a hazardous material with respect to these transportation regulations.

Inland waterways transport (ADN)

Other applicable information (inland waterways transport)

Not a hazardous material with respect to these transportation regulations.

Marine transport (IMDG)

Other applicable information (marine transport)

Not a hazardous material with respect to these transportation regulations.

Air transport (ICAO-TI/IATA-DGR)

Other applicable information (air transport)

Not a hazardous material with respect to these transportation regulations.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: nο

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

1999/13/EC (VOC): 35 % (430,5 g/l)

National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

SECTION 16: Other information

Relevant R phrases (number and full text)

20	Harmful by inhalation.
36/37/38	Irritating to eyes, respiratory system and skin.
40	Limited evidence of a carcinogenic effect.

42/43 May cause sensitisation by inhalation and skin contact.

48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Relevant H and EUH statements (number and full text)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptor

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

H335 May cause respiratory irritation. H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

EUH204 Contains isocyanates. May produce an allergic reaction.



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Further Information

* Data changed compared with the previous version

The regulations of the national employment safety and employment protection commission about the handling for polyurethane/epoxy have to be observed.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)