

Page 1 of 9

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 25.04.2019 / 0008

Revision date / version: 23.04.2019 / 00007 Replacing version dated / version: 07.03.2017 / 0007 Valid from: 25.04.2019 PDF print date: 02.05.2019 COSMO PU-160.230 COSMO PU-160.231

(COSMOPUR VP 1568)

## Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

#### 1.1 Product identifier

**COSMO PU-160.230** COSMO PU-160.231

#### (COSMOPUR VP 1568)

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

#### Relevant identified uses of the substance or mixture:

Seam sealant

Sector of use [SU]:

Secution Gas Good, SU 0 - Other
SU 1 - Agriculture, forestry, fishery
SU19 - Building and construction work
SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Chemical product category [PC]:

Chemical product category [r O. PC 1 - Adhesives, sealants Process category [PROC]: PROC19 - Manual activities involving hand contact

Uses advised against:

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

(GB)
Weiss Chemie + Technik GmbH & Co.KG, Hansastrasse 2, 35708 Haiger, Germany

Phone: +49(0)2773/815-0, Fax: --- msds@weiss-chemie.de, www.weiss-chemie.de

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

#### 1.4 Emergency telephone number

Emergency information services / official advisory body:

#### Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (WIC)

# **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Acute Tox.	4	H332-Harmful if inhaled.
Eye Irrit.	2	H319-Causes serious eye irritation.
STOT SE	3	H335-May cause respiratory irritation.
Skin Irrit.	2	H315-Causes skin irritation.
Resp. Sens.	1	H334-May cause allergy or asthma
		symptoms or breathing difficulties if inhaled.
Skin Sens.	1	H317-May cause an allergic skin reaction.
Carc.	2	H351-Suspected of causing cancer.
STOT RE	2	H373-May cause damage to organs through
		prolonged or repeated exposure by
		inhalation (respiratory system).

#### 2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)





#### Danger

H332-Harmful if inhaled. H319-Causes serious eve irritation. H335-May cause respiratory hass2-harmful ii ilinaleu. h319-causes serious eye ilinaloun. h335-hay cause respiratory irritation. H315-Causes skin irritation. H334-May cause allergy or asthma symptoms or breathing difficulties if inhaled. H317-May cause an allergic skin reaction. H351-Suspected of causing cancer. H373-May cause damage to organs through prolonged or repeated exposure by inhalation (respiratory system).

P201-Obtain special instructions before use. P260-Do not breathe vapours or spray. P280-Wear protective gloves / protective clothing / eye protection / face protection. P284-Wear respiratory protection. 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. P308+P313-IF exposed or concerned: Get medical advice / attention

EUH204-Contains isocyanates. May produce an allergic reaction.

Diphenylmethanediisocyanate, isomeres and homologues

Dipheryimetralindisocyaniate, isomeres 4,4'-methylenediphenyl diisocyanate o-(p-isocyanatobenzyl)phenyl isocyanate 2,2'-methylenediphenyl diisocyanate

#### 2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

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

#### 3.1 Substance

#### 3.2 Mixture

4,4 -methylenediphenyl dilsocyanate	
Registration number (REACH)	01-2119457014-47-XXXX
Index	615-005-00-9
EINECS, ELINCS, NLP	202-966-0
CAS	101-68-8
content %	10-<30
Classification according to Regulation (EC) 1272/2008	Acute Tox. 4, H332
(CLP)	Skin Irrit. 2, H315
	Eye Irrit. 2, H319
	Resp. Sens. 1, H334
	Skin Sens. 1, H317

	•
Poly propylene glycol	
Registration number (REACH)	
Index	
EINECS, ELINCS, NLP	500-039-8 (NLP)
CAS	25322-69-4
content %	10-<25
Classification according to Regulation (EC) 1272/2008	Acute Tox. 4, H302
(CLP)	

inhalation)

Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373 (respiratory system) (as

Diphenylmethanediisocyanate, isomeres and	
homologues	
Registration number (REACH)	
Index	
EINECS, ELINCS, NLP	***
CAS	9016-87-9
content %	10-<25
Classification according to Regulation (EC) 1272/2008	Acute Tox. 4, H332
(CLP)	Skin Irrit. 2, H315
	Eye Irrit. 2, H319
	Resp. Sens. 1, H334
	Skin Sens. 1, H317
	Carc. 2, H351
	STOT SE 3, H335
	STOT RE 2, H373 (respiratory system) (as
	inhalation)

o-(p-isocyanatobenzyl)phenyl isocyanate	
Registration number (REACH)	01-2119480143-45-XXXX
Index	615-005-00-9
EINECS, ELINCS, NLP	227-534-9
CAS	5873-54-1
content %	10-<25
Classification according to Regulation (EC) 1272/2008	Acute Tox. 4, H332
(CLP)	Skin Irrit. 2, H315
	Eye Irrit. 2, H319
	Resp. Sens. 1, H334
	Skin Sens. 1, H317
	Carc. 2, H351
	STOT SE 3, H335
	STOT RE 2, H373 (respiratory system) (as
	inhalation)

	"" alatation
2,2'-methylenediphenyl diisocyanate	
Registration number (REACH)	01-2119927323-43-XXXX
Index	615-005-00-9
EINECS, ELINCS, NLP	219-799-4
CAS	2536-05-2
content %	1-<5
Classification according to Regulation (EC) 1272/2008	Acute Tox. 4, H332
(CLP)	Skin Irrit. 2, H315
	Eye Irrit. 2, H319
	Resp. Sens. 1, H334
	Skin Sens. 1, H317
	Carc. 2, H351
	STOT SE 3, H335
	STOT RE 2, H373 (respiratory system) (as
	inhalation)

Isophthaloyl dichloride	
Registration number (REACH)	01-2119493993-19-XXXX
Index	
EINECS, ELINCS, NLP	202-774-7
CAS	99-63-8
content %	<0,25
Classification according to Regulation (EC) 1272/2008	Acute Tox. 4, H312
(CLP)	Acute Tox. 3, H331
	Skin Corr. 1A, H314
	Eve Dam 1 H318

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16. The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

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

#### 4.1 Description of first aid measures

First-aiders should ensure they are protected



Page 2 of 9

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 25.04.2019 / 0008

Revision date / version: 23.04.2019 / 00007 Replacing version dated / version: 07.03.2017 / 0007 Valid from: 25.04.2019 PDF print date: 02.05.2019 COSMO PU-160.230

COSMO PU-160.231

(COSMOPUR VP 1568)

Never pour anything into the mouth of an unconscious person! **Inhalation** 

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms. If the person is unconscious, place in a stable side position and consult a doctor. Respiratory arrest - Artificial respiration apparatus necessary.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Dab away with polyethylene glycol 400

Eye contact

Remove contact lenses

Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.

Ingestion

Rinse the mouth thoroughly with water.
Do not induce vomiting - give copious water to drink. Consult doctor immediate

**4.2 Most important symptoms and effects, both acute and delayed**If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1. The following may occur:

Dermatitis (skin inflammation)

Drying of the skin.
Allergic contact eczema
Discoloration of the skin
Irritant to mucosa of the nose and throat

Coughing

Effect on the central nervous system

Asthmatic symptoms
In case of sensitivity, concentrations below the limit value may already result in asthmatic symptoms.
Respiratory distress
Other dangerous properties cannot be ruled out.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

Delayed effects from exposure can be expected.

In case of urge to cough - antitussive agents
In case of irritation of the lungs, perform first-aid with controlled-dosage aerosol dexamethasone

## **SECTION 5: Firefighting measures**

# 5.1 Extinguishing media

Suitable extinguishing media

CO<sub>2</sub> Extinction powder

Extinction powder
Water jet spray
Large fire:
Water jet spray / alcohol resistant foam

Unsuitable extinguishing media

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop

Oxides of carbon

Oxides of nitrogen

Oxides in integers
Hydrocyanic acid (hydrogen cyanide)
Toxic pyrolysis products.
Danger of bursting (explosion) when heated

**5.3 Advice for firefighters**In case of fire and/or explosion do not breathe fumes.
Protective respirator with independent air supply.

According to size of fire Full protection, if necessary. Cool container at risk with water. Dispose of contaminated extinction water according to official regulations.

# **SECTION 6: Accidental release measures**

#### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient supply of air.

Avoid inhalation, and contact with eyes or skin.

If applicable, caution - risk of slipping.

6.2 Environmental precautions

If leakage occurs, dam up.
Resolve leaks if this possible without risk.

Prevent surface and ground-water infiltration, as well as ground penetration.

Prevent from entering drainage system.

If accidental entry into drainage system occurs, inform responsible authorities

6.3 Methods and material for containment and cleaning up Soak up with absorbent material (e.g. universal binding agent, sand, diate dispose of according to Section 13. ous earth, sawdust) and

Keep moist.

Do not close packing drum.

Allow to stand for a few days in an unclosed container until reaction no longer occurs. CO2 formation in closed tanks causes pressure to rise.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

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

dition to information given in this section, relevant information can also be found in section 8 and 6.1.

## 7.1 Precautions for safe handling

#### 7.1.1 General recommendations

Avoid inhalation of the vapours.
Ensure good ventilation.
If applicable, suction measures at the workstation or on the processing machine necessary.

if applicable, suction measures at the workstation or on the processing machine necessary. Avoid contact with eyes or skin.

No contact with products of this type in case of allergies, asthma und chronic respiratory tract disorders. Eating, drinking, smoking, as well as food-storage, is prohibited in work-room. Observe directions on label and instructions for use. Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

## 7.2 Conditions for safe storage, including any incompatibilities

Neep out of access to unauthorised individuals.

Not to be stored in gangways or stair wells.

Store product closed and only in original packing.

Do not store with oxidizing agents.

Store in a well ventilated place.

Store in a dry place.
Store at room temperature.
Keep protected from direct sunlight and temperatures over 50°C.

## 7.3 Specific end use(s)

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

#### 8.1 Control parameters

4 4'-methylenedinhenyl diisocyanate

(GB)	Chemical Name	4,4'-methy	lenediphenyl diisocyanate			Content
9)						%:10-
						<30
WEL-	-TWA: 0,02 mg/m3 (Iso	cyanates,	WEL-STEL: 0,07 mg/r	n3 (Isocyanates,		
all (as	s -NCO))		all (as -NCO))			
Monit	toring procedures:		ISO 16702 (Workplace air	quality - determina	ition of tota	ıl
			isocyanate groups in air us	sing 2-(1-methoxyph	nenylpipera	azine and
		-	liquid chromatography) - 2	001		
			MDHS 25/3 (Organic isocy	anates in air - Lab	oratory me	thod using
			sampling either onto 2-(1-	methoxyphenylpipe	razine coa	ted glass
			fibre filters followed by solv	vent desorption or in	nto impinge	ers and
	analysis using high performance liquid chromatography) - 1999					
<ul> <li>EU project BC/CEN/ENTR/000/2002-16 card 7-4 (2004)</li> </ul>						
BMG	V: 1 µmol isocyanate-d	erived diamir	ne/mol creatinine in urine	Other information	n: Sen	
(At th	e end of the period of exi	oosure)		(Isocvanates, all	(as -NCO)	)

(At the end of the period of exposure)			(Isocyanates, all (as -NCO))		
GB Chemical Name	Diphenylm	es	Content %:10- <25		
WEL-TWA: 0,02 mg/m3 (Iso all (as -NCO))	cyanates,	WEL-STEL: 0,07 mg/i all (as -NCO))	m3 (Isocyanates,		
Monitoring procedures:					
BMGV: 1 µmol isocyanate-derived diamine/mol creatinine in urine (At the end of the period of exposure) Other information: Sen (Isocyanates, all (as -NCO))					
GB Chemical Name	Chemical Name o-(p-isocyanatobenzyl)phenyl isocyanate				Content %:10- <25
WEL-TWA: 0,02 mg/m3 (Iso all (as -NCO))	cyanates,	WEL-STEL: 0,07 mg/i all (as -NCO))	m3 (Isocyanates,		
Monitoring procedures:					
	BMGV: 1 µmol isocyanate-derived diamine/mol creatinine in urine (Isocyanates, all (as -NCO))  (At the end of the period of exposure)				

<b>®</b>	Chemical Name	2,2'-methylenediphenyl diisocyanate					Content %:1-<5
WE	L-TWA: 0,02 mg/m3 (Isc	cyanates,	WEL-STEL:	0,07 mg/i	m3 (Isocyanates,		
all (	as -NCO))		all (as -NCO))				
Mor	nitoring procedures:						
BM	GV: 1 µmol isocyanate-d	erived diamin	e/mol creatinine	in urine	Other information	n: Sen	
(At	the end of the period of ex	posure)			(Isocyanates, all	(as -NCO	))

Area of application	Exposure route / Environmental compartment	Effect on health	Descri ptor	Valu e	Unit	Note
	Environment - freshwater		PNEC	1	mg/l	
	Environment - marine		PNEC	0,1	mg/l	
	Environment - sewage treatment plant		PNEC	1	mg/l	
	Environment - soil		PNEC	1	mg/kg dw	
	Environment - sporadic (intermittent) release		PNEC	10	mg/l	
Consumer	Human - oral	Short term, systemic effects	DNEL	20	mg/kg bw/day	
Consumer	Human - dermal	Short term, local effects	DNEL	17,2	mg/cm 2	
Consumer	Human - dermal	Short term, systemic effects	DNEL	25	mg/kg bw/day	
Consumer	Human - inhalation	Short term, local effects	DNEL	0,05	mg/m3	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	0,05	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	0,02 5	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,02 5	mg/m3	
Workers / employees	Human - dermal	Short term, local effects	DNEL	28,7	mg/cm 2	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	50	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	0,1	mg/m3	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	0,1	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	0,05	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	0,05	mg/m3	

o-(p-isocyanatobenzyl)phenyl isocyanate								
Area of application	Exposure route /	Effect on	Descri	Valu	Unit	Note		
	Environmental	health	ptor	e				
	compartment							
	Environment -		PNEC	1	mg/l			
	freshwater							
	Environment -		PNEC	0,1	mg/l			
	marine							



Page 3 of 9

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 25.04.2019 / 0008

Revision date / version: 23.04.2019 / 00007 Replacing version dated / version: 07.03.2017 / 0007 Valid from: 25.04.2019 PDF print date: 02.05.2019 COSMO PU-160.230

COSMO PU-160.231 (COSMOPUR VP 1568)

	Environment - sewage treatment plant		PNEC	1	mg/l	
	Environment - soil		PNEC	1	mg/kg dw	
	Environment - sporadic (intermittent) release		PNEC	10	mg/l	
Consumer	Human - oral	Short term, systemic effects	DNEL	20	mg/kg bw/day	
Consumer	Human - dermal	Short term, local effects	DNEL	17,2	mg/cm 2	
Consumer	Human - dermal	Short term, systemic effects	DNEL	25	mg/kg bw/d	
Consumer	Human - inhalation	Short term, local effects	DNEL	0,05	mg/m3	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	0,05	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	0,02 5	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,02 5	mg/m3	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	50	mg/kg bw/d	
Workers / employees	Human - dermal	Short term, local effects	DNEL	28,7	mg/cm 2	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	0,1	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	0,1	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	0,05	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	0,05	mg/m3	

2,2'-methylenedipher	nyl diisocyanate					
Area of application	Exposure route /	Effect on	Descri	Valu	Unit	Note
	Environmental	health	ptor	e		
	compartment					
Consumer	Human - oral	Short term,	DNEL	20	mg/kg	
		systemic effects			bw/d	
Consumer	Human - dermal	Short term,	DNEL	17,2	mg/cm	
		local effects			2	
Consumer	Human - dermal	Short term,	DNEL	25	mg/kg	
		systemic effects			bw/d	
Consumer	Human - inhalation	Short term,	DNEL	0,05	mg/m3	
		systemic effects				
Consumer	Human - inhalation	Short term,	DNEL	0,05	mg/m3	
		local effects				
Consumer	Human - inhalation	Long term,	DNEL	0,02	mg/m3	
		systemic effects		5		
Consumer	Human - inhalation	Long term,	DNEL	0,02	mg/m3	
		local effects		5		
Workers /	Human - dermal	Short term,	DNEL	28,7	mg/cm	
employees		local effects			2	
Workers /	Human - dermal	Short term,	DNEL	50	mg/kg	
employees		systemic effects			bw/d	
Workers /	Human - inhalation	Short term,	DNEL	0,1	mg/m3	
employees		local effects				
Workers /	Human - inhalation	Short term,	DNEL	0,1	mg/m3	
employees		systemic effects				
Workers /	Human - inhalation	Long term,	DNEL	0,05	mg/m3	
employees		systemic effects				
Workers /	Human - inhalation	Long term,	DNEL	0,05	mg/m3	
employees		local effects				

Isophthaloyl dichloric						
Area of application	Exposure route / Environmental compartment	Effect on health	Descri ptor	Valu e	Unit	Note
	Environment - freshwater		PNEC	0,13 3	mg/l	
	Environment - marine		PNEC	0,01 33	mg/l	
	Environment - sporadic (intermittent) release		PNEC	1,33 7	mg/l	
	Environment - sewage treatment plant		PNEC	6,17 1	mg/l	
	Environment - sediment, freshwater		PNEC	0,63 65	mg/kg	
	Environment - sediment, marine		PNEC	0,06 37	mg/kg	
	Environment - soil		PNEC	0,04 92	mg/kg	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	3,94	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	4,47	mg/kg bw/d	

(B) WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference

period).

(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.

\*\* = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the coal of revision. the goal of revision.

## 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction. If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn

should be worn.
Applies only if maximum permissible exposure values are listed here.
Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.
These are specified by e.g. BS EN 14042.
BS EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment

of exposure to chemical and biological agents".

#### 8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection: Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection: Chemical resistant protective gloves (EN 374). Recommended

Protective nitrile gloves (EN 374).

Minimum layer thickness in mm

>= 0,35
Permeation time (penetration time) in minutes:

>= 480
The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical

conditions.
The recommended maximum wearing time is 50% of breakthrough time.

Protective hand cream recommended

Skin protection - Other: Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:

Normally not necessary.

If OES or MEL is exceeded.

Filter A2 P2 (EN 14387), code colour brown, white
Observe wearing time limitations for respiratory protection equipment.

Thermal hazards

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and

varies from manufacturer to manufacturer

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested

Derive use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

## 8.2.3 Environmental exposure controls

#### **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

Physical sta Colour: Liquid According to specification Odour:
Odour threshold:
pH-value:
Melting point/freezing point:
Initial boiling point and boiling range: Characteristic
Not determined
n.a.
Not determined Not determined Flash point Not determined Evaporation rate: Not determined Flammability (solid, gas): Lower explosive limit: Upper explosive limit: Not determined Not determined Vapour pressure: Vapour density (air = 1): Not determined Density: Bulk density:

1,13 - 1,15 g/cm3 (20°C) Not determined Not determined Solubility(ies):
Water solubility:
Partition coefficient (n-octanol/water): reacts with water, Insoluble

Not determined Auto-ignition temperature Nο Not determined

Decomposition temperature: Viscosity: Explosive properties: Oxidising properties: 1600 - 1900 mPas (20°C) Product is not explosive. No

9.2 Other information

Not determined Miscibility: Fat solubility / solvent: Not determined Conductivity: Surface tension: Solvents content: Not determined

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

# 10.1 Reactivity

The product has not been tested.

# 10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid

Protect from humidity.
Polymerisation due to high heat is possible.
T ~ 260°C

## 10.5 Incompatible materials

Acids Bases

Oxidizing agents

Amines

Alcohols



Page 4 of 9
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 25.04.2019 / 0008
Replacing version dated / version: 07.03.2017 / 0007
Valid from: 25.04.2019
PDF print date: 02.05.2019
COSMO PU-160.230
COSMO PU-160.231

(COSMOPUR VP 1568)

Polyhydric alcohols
Water
Developement of:
CO2
CO2 formation in closed tanks causes pressure to rise.
Pressure increase will result in danger of bursting.
10.6 Hazardous decomposition products
No decomposition when used as directed.

# **SECTION 11: Toxicological information**

11.1 Information on toxicological effects
Possibly more information on health effects, see Section 2.1 (classification).
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(COSMOPUR VP 1568)

Endpo int	Value	Unit	Organis m	Test method	Notes
ATE	>2000	mg/k			calculated
		g			value
					n.d.a.
ATE	12,43- 21,5	mg/l/ 4h			calculated value, Vapours
ATE	2,06- 3,67	mg/l/ 4h			calculated value, Aerosol
	-				
					n.d.a.
					Classificati on according to calculation procedure.
	ATE	ATE >2000  ATE 12,43- 21,5  ATE 2,06- 3,67	ATE >2000 mg/k g  ATE 12,43- mg/l/ 4h  ATE 2,06- mg/l/ 4h	ATE	ATE >2000 mg/k g  ATE 12,43- mg/l/ 21,5 4h  ATE 2,06- mg/l/ 3,67 4h

4,4'-methylenedipheny Toxicity / effect	Endpo	Value	Unit	Organis	Test method	Notes
	int			m		
Acute toxicity, by oral route:	LD50	>2000	mg/k g	Rat	Regulation (EC) 440/2008 B.1	Analogous conclusion
					(ACUTE ORAL TOXICITY)	
Acute toxicity, by	LD50	>9400	mg/k	Rabbit	OECD 402	Analogous
dermal route:			g		(Acute Dermal Toxicity)	conclusion
Acute toxicity, by	ATE	1,5	mg/l/			Aerosol,
inhalation:			4h			Expert judgement
Acute toxicity, by	LC50	0,368	mg/l/	Rat	OECD 403	Aerosol,
inhalation:			4h		(Acute Inhalation	Does not
					Toxicity)	conform
						with EU classificati
						n.
Skin				Rabbit	OECD 404	Skin Irrit.
corrosion/irritation:					(Acute Dermal	2,
					Irritation/Corrosio	Analogous
					n)	conclusion
Serious eye				Rabbit	OECD 405	Not irritant
damage/irritation:					(Acute Eye	Analogous
					Irritation/Corrosio	conclusion
					n)	Does not conform
						with EU
						classificati
						n.
Respiratory or skin				Guinea	OECD 406 (Skin	No (skin
sensitisation:				pig	Sensitisation)	contact)
Respiratory or skin				Mouse	OECD 429 (Skin	Yes (skin
sensitisation:					Sensitisation - Local Lymph	contact)
					Node Assay)	
Respiratory or skin				Guinea	, , , , , ,	Yes
sensitisation: Germ cell	1			pig Salmonel	OECD 471	(inhalation Negative,
Germ cell mutagenicity:				Saimonei	(Bacterial	Analogous
mutagemony.				typhimuri	Reverse	conclusion
				um	Mutation Test)	COLICIUSIO
Germ cell				Rat	OECD 474	Negative
mutagenicity:					(Mammalian	
					Erythrocyte	
					Micronucleus Test)	
Germ cell			_	Rat	OECD 489 (In	Negative
mutagenicity:					Vivo Mammalian	12370
					Alkaline Comet	
	1		1	1	Assay)	

Carcinogenicity:				Rat	OECD 453 (Combined Chronic Toxicity/Carcinog enicity Studies)	Limited evidence of a carcinogeni c effect., Aerosol, Analogous conclusion
Reproductive toxicity:	NOAE L	4	mg/m 3	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Aerosol, Analogous conclusion
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAE L	0,2	mg/m 3	Rat	OECD 453 (Combined Chronic Toxicity/Carcinog enicity Studies)	Aerosol, Analogous conclusion
Specific target organ toxicity - repeated exposure (STOT-RE):	LOAE L	1		Rat	OECD 453 (Combined Chronic Toxicity/Carcinog enicity Studies)	Aerosol, Analogous conclusion
Specific target organ toxicity - single exposure (STOT-SE), inhalative:						Target organ(s): respiratory system, Irritation of the respiratory tract
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:						Target organ(s): respiratory system, Positive

Poly propylene glycol Toxicity / effect	Endpo	Value	Unit	Organis	Test method	Notes
	int			m		
Acute toxicity, by oral route:	LD50	>500 - <2000	mg/k	Rat		
Acute toxicity, by	LD50	>3000	g mg/k	Rabbit	OECD 402	Analogo
dermal route:	LDS0	>5000	g	Rabbit	(Acute Dermal	conclusi
dermai route.			9		Toxicity)	COHCIUSI
Skin				Rabbit	OECD 404	Not irrita
corrosion/irritation:					(Acute Dermal	
					Irritation/Corrosio	
					n)	
Serious eye				Rabbit	OECD 405	Not irrita
damage/irritation:					(Acute Eye	
					Irritation/Corrosio	
					n)	
Respiratory or skin				Mouse	OECD 429 (Skin	Not
sensitisation:					Sensitisation -	sensitizi
					Local Lymph	g
0				Salmonel	Node Assay) OECD 471	Manatha
Germ cell						Negative
mutagenicity:				la tombimo uni	(Bacterial Reverse	
				typhimuri um	Mutation Test)	
Germ cell				uiii	OECD 476 (In	Negative
mutagenicity:					Vitro	Analogo
matagernoity.					Mammalian Cell	conclusi
					Gene Mutation	001101001
					Test)	
Reproductive toxicity	NOAE	1000	mg/k	Rat	OECD 421	Female,
(Developmental	L		g		(Reproduction/D	Negative
toxicity):			-		evelopmental	Analogo
					Toxicity	conclusi
					Screening Test)	
Reproductive toxicity	NOAE	1000	mg/k	Rat	OECD 421	Analogo
(Effects on fertility):	L		g		(Reproduction/D	conclusi
					evelopmental	
					Toxicity	
December described	NOAE	1000	A-	Rat	Screening Test) OECD 421	A1
Reproductive toxicity (Effects on fertility):	NOAE L	1000	mg/k	Rat	(Reproduction/D	Analogo conclusi
(Effects on fertility):	-		g		evelopmental	Conclusi
					Toxicity	
					Screening Test)	
Specific target organ	NOAE	>=1000	mg/k	Rat	OECD 407	Analogo
toxicity - repeated	L	>=1000	g/d		(Repeated Dose	conclusi
exposure (STOT-RE):	-		9,5		28-Day Oral	000.001
					Toxicity Study in	
					Rodents)	
Symptoms:					ŕ	annoyar
						cramps
	1		1			trembling

Diphenylmethanediisocyanate, isomeres and homologues										
Toxicity / effect	Endpo int	Value	Unit	Organis m	Test method	Notes				
Acute toxicity, by oral route:	LD50	>5000	mg/k g	Rat	OECD 401 (Acute Oral Toxicity)					
Acute toxicity, by dermal route:	LD50	>5000	mg/k g	Rabbit	OECD 402 (Acute Dermal Toxicity)					
Acute toxicity, by inhalation:	LC50	0,31	mg/l/ 4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol, Does not conform with EU classificatio				
Acute toxicity, by inhalation:	ATE	1,5	mg/l/ 4h			Expert judgement.				
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosio n)	Skin Irrit. 2				
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosio n)	Not irritant, Analogous conclusion, Does not conform with EU classificatio n.				



March   Marc	Page 5 of 9							Carcinogenicity:				Rat	OECD 453	Aerosol,
Proceedings	Revision date / version: 2 Replacing version dated Valid from: 25.04.2019 PDF print date: 02.05.20 COSMO PU-160.230	25.04.2019 / version: 07	/ 0008		6, Annex II			caratiogenoity.				. Coli	(Combined Chronic Toxicity/Carcinog	Analogous conclusion Limited evidence of a carcinogen
March   Marc								Reproductive toxicity:		4		Rat	(Prenatal	Aerosol, Analogous
Contract					Mouse								Toxicity Study)	
Part	Respiratory or skin					Local Lymph Node Assay) OECD 406 (Skin	Analogous conclusion No (skin	toxicity - repeated		1		Rat	(Combined Chronic Toxicity/Carcinog	Aerosol, Analogous conclusion
April   Control   Contro						Sensitisation)		Specific target organ	NOAF	0.2	ma/m	Rat		Aerosol
Seminary	sensitisation: Germ cell					(Mammalian	(inhalation) Negative, Analogous	toxicity - repeated	L	0,2		· · · · ·	(Combined Chronic Toxicity/Carcinog	Analogous conclusion
Controversion   Controversio						Micronucleus Test) OECD 471		Symptoms:					, ,	membrane irritation,
Repenductive country (Sudder)					typhimuri um	Reverse Mutation Test) OECD 453	Aerosol,							difficulties,
Tracking								Specific target organ						symptoms
Comparison   Com	Popraductivo tovicity	NOAE	4	ma/m	Pot	Toxicity/Carcinog enicity Studies)	of a carcinogeni c effect.	toxicity - single exposure (STOT-SE),						organ(s): respiratory system,
Combined		L				(Prenatal Developmental Toxicity Study)	Negative							the respiratory tract
Commonwell   Com	toxicity - repeated		1		Rat	(Combined Chronic Toxicity/Carcinog enicity Studies)	Analogous	toxicity - repeated exposure (STOT-RE),						organ(s): respiratory system,
Control   Cont			0,2		Rat		Aerosol, Analogous	2,2'-methylenedipheny	l diisocyana	ate				
Application program		_				Chronic	conclusion	Toxicity / effect	Endpo	Value	Unit		Test method	Notes
exposure (FTOT-SE), includive.    Paging   Pagin	Specific target organ					enicity Studies)	Target			>2000			440/2008 B.1 (ACUTE ORAL	Analogous conclusion
Specific target cognic formation boothy: repetitively system, controlled properties of the properties	exposure (STOT-SE),						respiratory system,		LD50	>9400		Rabbit	OECD 402 (Acute Dermal	Analogous conclusion
respiratory spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin sensitisation:  - Guinea yes fractional formation of the spiratory or skin s							irritation. Target					Rabbit	(Acute Dermal Irritation/Corrosio	Irritant
Col-pisocyantatobenryliphenryl lacoyamate   Col-pisocyantatobenr	exposure (STOT-RE),						respiratory system,					Rabbit	OECD 405 (Acute Eye Irritation/Corrosio	Irritant, Analogous conclusion
Acute toxicity, by cereal route.  Acute toxicity, by control of co		Endpo		Unit		Test method	Notes							Yes (inhalation) Analogous
Acute toxicity, by chemical conclusion.  Acute toxicity, by chemical conclusion.  Acute toxicity, by childlation.  Acute toxicity childlation.  Acute toxicity childlation.  Acute toxicity childlation.  Acute toxicity childlation.		LD50	>2000		Rat	440/2008 B.1 (ACUTE ORAL						Mouse	Sensitisation -	
Acute toxicity, by inhalation:  Acute toxicity, and acute toxicity.		LD50	>9400		Rabbit	OECD 402	Analogous	Germ cell				Salmonel	Node Assay)	Negative
Acute toxicity, by ATE 1.5 mg/V An Are 1.5 mg/	Acute toxicity, by	LC50	0,387	mg/l/	Rat		Aerosol,					la typhimuri	(Bacterial Reverse	Analogous conclusion
Acrosol, finalation: Skin corrosion/irritation: Skin corrosion/irritation: Skin corrosion/irritation: Skin corrosion/irritation: Skin corrosion/irritation: Skin corrosion/irritation: Serious eye damage/irritation:  Rabbit OECD 405 Analogous, n) Serious eye damage/irritation: Serious eye deposite target organ toxicity: Specific target o							conform with EU classificatio	Carcinogenicity:				Rat	OECD 453 (Combined Chronic	evidence
Acute Dermal Initiation/Corrosio   Analogous conclusion   No initiation   Corrosion/irritation:   Rabbit   OECD 405   (Acute Eye Initiation/Corrosio n)   OECD 406   (Acute Eye Initiation/Corrosio n)   OECD 406 (Skin Sensitisation)   OECD 4	inhalation:	ATE	1,5		Rabbit	OECD 404	Expert judgement.						enicity Studies)	Analogous conclusion,
Analogous printation:   Analogous printation/Corrosio non with EU classification   Pig Sensitisation:   Se					Rabbit	Irritation/Corrosio n)	Analogous conclusion	Reproductive toxicity:		4		Rat	(Prenatal Developmental	indications of such an
Respiratory or skin sensitisation:  Respiratory or skin sensitisation - Local Lymph Node Assay)  Respiratory or skin sensitisation:  Respiratory or skin sensitisation - Local Lymph Node Assay)  Respiratory or skin sensitisation:  Respiratory or skin sensitisation - Local Lymph Node Assay)  Respiratory or skin sensitisation - Local Lymph Node Assay)  Respiratory or skin sensitisation - Local Lymph Node Assay)  Respiratory or skin sensitisation - Local Lymph Node Assay)  Respiratory or skin sensitisation - Local Lymph Node Assay)  Respiratory or skin sensitisation - Local Lymph Node Assay)  Respiratory or skin sensitisation - Local Lymph Node Assay)  Respiratory or skin sensitisation - Local Lymph Node Assay)  Respiratory or skin sensitisation - Local Lymph Node Assay)  Respiratory or skin sensitisation - Local Lymph Node Assay)  Respiratory or skin sensitisation - Local Lymph Node Assay)  Respitatory or skin sensitisation - Local Lymph Node Assay)  Respitatory or skin sensitisation - Local Lymph Node Assay)  Respitatory or skin sensitisation - Local Lymph Node Assay)  Respitatory or skin sensitisation - Local Lymph Node Assay)  Respitatory or skin sensitisation - Local Lymph Node Assay)  Respitatory or skin sensitisation - Local Lymph Node Assay)  Respitatory or skin sen						(Acute Eye Irritation/Corrosio	Analogous conclusion, Does not	Cha silia targat argan	LOAF	4		Det		Aerosol, Analogous conclusion
sensitisation:    pig   Sensitisation   Contact), Analogous conclusion   Sensitisation:   Guinea   Pig   Guinea   Pig   Sensitisation:   Sensitisation:   Pig   Sensitisation:   Sensitisation:   Sensitisation:   Sensitisation:   Sensitisation   Contact), Analogous conclusion   Symptoms:   Sympt	Respiratory or skin				Guinea	OECD 406 (Skin	with EU classificatio n.	toxicity - repeated		1		Kat	(Combined Chronic Toxicity/Carcinog	Analogous conclusion
sensitisation:    Pig	sensitisation:				pig		contact), Analogous conclusion	toxicity - repeated		0,2		Rat	OECD 453 (Combined Chronic	Aerosol, Analogous conclusion
sensitisation:    Sensitisation - Local Lymph   Analogous conclusion	sensitisation:				pig	OECD 420 (Shin	(inhalation), Analogous conclusion	Symptoms:						
mutagenicity:    Ia typhimuri typhimuri um Mutation Test)   Rat   OECD 474 (Mammalian Erythrocyte mutagenicity:   Test)   Test	sensitisation:					Sensitisation - Local Lymph Node Assay)	contact), Analogous conclusion	Canalific transit						mucous membrane irritation
Germ cell mutagenicity:  Rat OECD 474 (Mammalian Erythrocyte Micronucleus Test)  Rat OFCD 474 (Mammalian Erythrocyte Conclusion Micronucleus Test)  Rat OECD 474 (Mammalian Erythrocyte Conclusion Micronucleus Test)  Specific target organ toxicity - repeated exposure (STOT-RE), inhalat:	mutagenicity:				la typhimuri um	(Bacterial Reverse Mutation Test)	-	toxicity - single exposure (STOT-SE), inhalative:						respiratory irritation.
Test)	Germ cell mutagenicity:					OECD 474 (Mammalian Erythrocyte Micronucleus	Analogous	Specific target organ toxicity - repeated exposure (STOT-RE),						organ(s): respiratory



B)							ı								
B) Page 6 of 9 Safety data sheet ar Revision date / vers Replacing version d Valid from: 25.04.20 PDF print date: 02.23 COSMO PU-160.23	sion: 25.04.20 lated / versior 019 05.2019	19 / 000	)8 <sup>`</sup>		6, Annex II			12.1. Toxicity to daphnia:  12.2. Persistence and	NOEC/N OEL	21d 28d	>10	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisati on Test) OECD 302 C (Inherent	Analogous conclusion Not biodegrada
COSMO PU-160.23								degradability:						Biodegradab ility -	ble
(COSMOPUR VP 1	568)													Modified MITI Test	
Acute toxicity, by ora route:			5000	mg/k g	Rat			12.1. Toxicity to	ErC50	72h	>16	mg/l	Desmodesm	(II)) OECD 201	Analogous
Acute toxicity, by dermal route:	LD50		110	mg/k g	Rabbit			algae:			40		us subspicatus	(Alga, Growth	conclusion
Acute toxicity, by inhalation:	LC50	0,	7	mg/l/ 4h	Rat		Aerosol, Analogous							Inhibition Test)	
Skin					Rabbit		conclusion Corrosive,	12.3. Bioaccumulative	BCF	28d	200		Cyprinus caprio	IUCLID Chem. Data	Not to be expected
corrosion/irritation:					Dalaha		Analogous conclusion	potential:	L D		5.00			Sheet (ESIS)	A
Serious eye damage/irritation:					Rabbit		Corrosive, Analogous conclusion	12.3. Bioaccumulative potential:	Log Pow		5,22				A notable biological accumulat
Respiratory or skin sensitisation:					Guinea pig		No (skin contact)	poterniai.							on potential
Germ cell mutagenicity:					pig	OECD 476 (In Vitro	Negative, Analogous								has to be expected
matagornoty.						Mammalian Cell Gene Mutation	conclusion								(LogPow :
Specific target organ	n NOA	E 47	'4	mg/k	Rat	Test) OECD 408	Analogous	Toxicity to bacteria:	EC50	3h	>10 0	mg/l	activated sludge	OECD 209 (Activated	Analogous conclusion
toxicity - repeated exposure (STOT-RE oral:	L			g		(Repeated Dose 90-Day Oral Toxicity Study in Rodents)	conclusion							Sludge, Respiration Inhibition Test	
	SEC	TION	12· F	cologi	cal inforn	mation								(Carbon and Ammonium	
	020	11011	12	oologi	our miori	nation		12.5. Results of						Oxidation))	No PBT
Possibly more inform COSMO PU-160.23	30	/ironmen	ital effects	s, see Sec	tion 2.1 (classif	fication).		PBT and vPvB assessment							substance No vPvB
COSMO PU-160.23								Toxicity to	EC50	14d	>10	mg/k	Eisenia	OECD 207	substance Analogous
(COSMOPUR VP 1 Toxicity / effect	568) Endpoin	Tim	Valu	Unit	Organism		Notes	annelids:			00	g	foetida	(Earthworm, Acute	conclusion
12.1. Toxicity to	t	е	e			method	n.d.a.		NOFON			,		Toxicity Tests)	
fish: 12.1. Toxicity to							n.d.a.	Toxicity to annelids:	NOEC/N OEL	14d	100	mg/k g	Lumbricus terrestris	OECD 207 (Earthworm,	Analogous conclusion
daphnia: 12.1. Toxicity to							n.d.a.				0			Acute Toxicity	
algae: 12.2. Persistence and							With water at the	Water solubility:						Tests)	According to
degradability:							interface, interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high melting point (polycarba mide). According to experience available to date, polycarbamide is inert and non-								experience available to date, polycarbar ide is inert and non-degradable, With water at the interface, transforms slowly wife formation of CO2 into a firm, insoluble reaction producing melting point (polycarba mide).
12.3. Bioaccumulative							n.d.a.	Poly propylene gl	ycol						
potential: 12.4. Mobility in							n.d.a.	Toxicity / effect	Endpoin t	Tim e	Valu e	Unit	Organism	Test method	Notes
soil: 12.5. Results of PBT and vPvB assessment							n.d.a.	12.1. Toxicity to fish:	LC50	96h	>10 0	mg/l	Poecilia reticulata	OECD 203 (Fish, Acute Toxicity Test)	
12.6. Other adverse effects: Other information:	AOX						n.d.a.  According to the	12.1. Toxicity to daphnia:	EC50	48h	>10 0	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisati	
							recipe, contains	12.1. Toxicity to	NOEC/N	21d	>=1	mg/l	Daphnia	on Test) OECD 211	Analogous
Other information:	DOC						no AOX.  DOC- elimination degree(co	daphnia:	OEL		0		magna	(Daphnia magna Reproductio n Test)	conclusion
							mplexing organic	12.1. Toxicity to algae:	EC0	72h	>= 100	mg/l	Desmodesm us	OECD 201 (Alga,	
							substance) >= 80%/28d: n.a.	40.0		004	00	0/	subspicatus	Growth Inhibition Test)	D. a.dib.
4,4'-methylenediph	nenyl diisooy	anate			1		11.0.	12.2. Persistence and		28d	>60	%		OECD 301 F (Ready	Readily biodegrada
Toxicity / effect	Endpoin t	Tim	Valu e	Unit	Organism	Test method	Notes	degradability:						Biodegradab ility - Manametric	ble
Other information:	H (Henry)	-	0,02 29			meulod								Manometric Respirometr	
nformation: 12.1. Toxicity to fish:	LC50	96h	>10 00	mg/l	Brachydani rerio	io OECD 203 (Fish, Acute Toxicity Test)	Analogous conclusion	12.2. Persistence and degradability:		28d	>60	%		y Test) OECD 301 F (Ready Biodegradab ility -	Readily biodegrada ble
	EC50	24h	>10	mg/l	Daphnia	OECD 202	Analogous							Manometric	



Page 7 of 9 Safety data sheet a	sion: 25.04.20	19 / 000	8		S, Annex II			12.1. Toxicity to daphnia:	NOEC/N OEL	21d	>10	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisati	Analogous conclusion
Replacing version Valid from: 25.04.2 PDF print date: 02	019	1: 07.03.2	2017 / 000	37				12.1. Toxicity to	ErC50	72h	>16	mg/l	Scenedesm	on Test) OECD 201	Analogous
COSMO PU-160.2 COSMO PU-160.2 (COSMOPUR VP	30 31							algae:	21000	7211	40	mgn	us subspicatus	(Alga, Growth Inhibition Test)	conclusion
Toxicity to	EC50	3h	>10	g/l	activated	OECD 209		12.2. Persistence and		28d	0	%		OECD 302 C (Inherent	Not biodegrada
bacteria:	2030	311	00	g/i	sludge	(Activated Sludge, Respiration Inhibition Test (Carbon		degradability:	EC50	3h	>10	mg/l	activated	Biodegradab ility - Modified MITI Test (II)) OECD 209	ble, Analogous conclusion
						and Ammonium Oxidation))		bacteria:			0		sludge	(Activated Sludge, Respiration Inhibition	conclusion
Diphenylmethane Toxicity / effect	diisocyanate, Endpoin	isomere Tim	s and ho	mologues Unit	Organism	Test	Notes							Test (Carbon	
Other organisms:	t NOEC/N	<b>e</b> 14d	<b>e</b> >10	mg/k	Avena sativa	method OECD 208								and Ammonium	
	OEL		00	g		(Terrestrial Plants, Growth Test)		Toxicity to annelids:	NOEC/N OEL	14d	>10 00	mg/k g	Eisenia foetida	Oxidation)) OECD 207 (Earthworm, Acute	Analogous conclusion
12.1. Toxicity to fish:	LC50	96h	>10 00	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute								Toxicity Tests)	
						Toxicity Test)		2,2'-methylenedip	henyl diisocy	anate					
12.1. Toxicity to daphnia:	NOEC/N OEL	21d	>10	mg/l	Daphnia magna	OECD 202 (Daphnia		Toxicity / effect	Endpoin	Tim e	Valu e	Unit	Organism	Test method	Notes
12.1. Toxicity to	EC50	24h	>10	mg/l	Daphnia	sp. Acute Immobilisati on Test) OECD 202		12.1. Toxicity to fish:	LC50	96h	>10 00	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	Analogous conclusion
daphnia:			00		magna	(Daphnia sp. Acute Immobilisati on Test)		12.1. Toxicity to daphnia:	NOEC/N OEL	21d	>10	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisati	
12.1. Toxicity to algae:	ErC50	72h	>16 40	mg/l	Scenedesm us subspicatus	OECD 201 (Alga, Growth Inhibition		12.1. Toxicity to daphnia:	EC50	24h	>10 00	mg/l	Daphnia magna	on Test) OECD 202 (Daphnia sp. Acute Immobilisati	Analogous conclusion
12.2. Persistence and degradability:		28d	0	%	activated sludge	Test) OECD 302 C (Inherent Biodegradab ility -	Not biodegrada ble	12.1. Toxicity to algae:	EC50	72h	164 0	mg/l	Scenedesm us subspicatus	on Test) OECD 201 (Alga, Growth	Analogous conclusion
12.3.	BCF	42d	<14		Cyprinus	Modified MITI Test (II)) OECD 305	No	12.2. Persistence and		28d	0	%	Cubopicatus	Inhibition Test) OECD 302 C (Inherent	With water at the
Bioaccumulative potential:					caprio	(Bioconcentr ation - Flow- Through Fish Test)	significant biodegrada tion is expected.	degradability:						Biodegradab ility - Modified MITI Test	interface, transforms slowly with formation
12.5. Results of PBT and vPvB assessment Toxicity to	EC50	3h	>10	mg/l	activated	OECD 209	Negative							(II))	of CO2 into a firm, insoluble reaction
bacteria:			0		sludge	(Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))									product with a high melting point (polycarba mide)., According to experience
Other organisms:	NOEC/N OEL	14d	>10 00	mg/k g	Lactuca sativa	OECD 208 (Terrestrial Plants, Growth									available to date, polycarbam ide is inert
Toxicity to annelids:	NOEC/N OEL	14d	>10 00	mg/k g	Lumbricus terrestris	Test) OECD 207 (Earthworm, Acute									and non- degradable ., Analogous
						Toxicity Tests)		12.3.	Log Pow		5,22				A notable
o-(p-isocyanatob							L N /	Bioaccumulative potential:							biological accumulati
Toxicity / effect	Endpoin t	Tim e	Valu e	Unit	Organism	Test method	Notes								on potential
12.3. Bioaccumulative potential:	BCF	28d	200		Cyprinus caprio	OECD 305 (Bioconcentr ation - Flow- Through	Not to be expected, Analogous conclusion	Tarishia	5050	Ol-	40			0500.000	has to be expected (LogPow > 3).
Other organisms:	NOEC/N OEL	14d	>10 00	mg/k g	Avena sativa	Fish Test) OECD 208 (Terrestrial Plants,	Analogous conclusion	Toxicity to bacteria:	EC50	3h	>10 0	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration	Analogous conclusion
						Growth Test)								Inhibition Test	
Other organisms:	NOEC/N OEL	14d	>10 00	mg/k g	Lactuca sativa	OECD 208 (Terrestrial Plants, Growth	Analogous conclusion							(Carbon and Ammonium Oxidation))	
Other information:	H (Henry)		0,02			Test)		Isophthaloyl dich		Tim	Valu	Unit	Organism	Test	Notes
information: 12.5. Results of PBT and vPvB assessment	(Henry)		29				No PBT substance, No vPvB	12.1. Toxicity to fish:	Endpoin t LC50	<b>e</b> 96h	<b>e</b> 134	mg/l	Pimephales promelas	Test method	
12.1. Toxicity to fish:	LC50	96h	>10 00	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity	substance Analogous conclusion	12.1. Toxicity to daphnia: 12.1. Toxicity to algae:	EC50 EC50	48h 96h	>95 2 >99 6	mg/l mg/l	Daphnia magna Selenastrum capricornut		Analogous conclusion Analogous conclusion
12.1. Toxicity to daphnia:	EC50	24h	>10 00	mg/l	Daphnia magna	Test) OECD 202 (Daphnia sp. Acute	Analogous conclusion		SECT	ION 1	3: Dis	sposal	considera	tions	
						Immobilisati on Test)									



B — Page 8 of 9

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 25.04.2019 / 0008 Replacing version dated / version: 07.03.2017 / 0007 Valid from: 25.04.2019 PDF print date: 02.05.2019

COSMO PU-160,230 COSMO PU-160,231

(COSMOPUR VP 1568)

#### 13.1 Waste treatment methods

#### For the substance / mixture / residual amounts

EC disposal code no.:
The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be

owing to the user's specific containeds for dealer disposal, offer waste codes may be allocated under certain circumstances. (2014/955/EU) 08 04 09 waste adhesives and sealants containing organic solvents or other hazardous substances 08 05 01 waste isocyanates Recommendation:

Sewage disposal shall be discouraged.
Pay attention to local and national official regulations.

E.g. suitable incineration plant.

Hardened product:
E.g. dispose at suitable refuse site

For contaminated packing material Pay attention to local and national official regulat Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

15 01 02 plastic packaging

15 01 10 packaging containing residues of or contaminated by hazardous substances

# **SECTION 14: Transport information**

**General statements** 14.1. UN number:

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:
14.3. Transport hazard class(es): n.a. 14.4. Packing group: Classification code: n.a.

n.a. n.a. Not applicable LQ: 14.5. Environmental hazards: Tunnel restriction code:

Transport by sea (IMDG-code)

14.2. UN proper shipping name: 14.3. Transport hazard class(es): n.a. 14.4. Packing group:
Marine Pollutant:
14.5. Environmental hazards n.a.

Not applicable

Transport by air (IATA)
14.2. UN proper shipping name:
14.3. Transport hazard class(es):
14.4. Packing group:
14.5. Environmental hazards: n.a. n.a. Not applicable

**14.6. Special precautions for user**Unless specified otherwise, general measures for safe transport must be followed.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Non-dangerous material according to Transport Regulations

#### **SECTION 15: Regulatory information**

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

Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!

Regulation (EC) No 1907/2006, Annex XVII
4,4'-methylenediphenyl diisocyanate
Diphenylmethanediisocyanate, isomeres and homologues
o-(p-isocyanatobenzyl)phenyl isocyanate

2,2'-methylenediphenyl diisocyanate
Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC):

## 15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures

# **SECTION 16: Other information**

2, 3, 4, 8, 11, 15 Revised sections:

These details refer to the product as it is delivered. Employee instruction/training in handling hazardous materials is required.

#### Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Acute Tox. 4, H332	Classification according to calculation
	procedure.
Eye Irrit. 2, H319	Classification according to calculation
	procedure.
STOT SE 3, H335	Classification according to calculation
	procedure.
Skin Irrit. 2, H315	Classification according to calculation
	procedure.
Resp. Sens. 1, H334	Classification according to calculation
	procedure.
Skin Sens. 1, H317	Classification according to calculation
	procedure.
Carc. 2, H351	Classification according to calculation
	procedure.
	·

STOT RE 2. H373

Classification according to calculation procedure

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H314 Causes severe skin burns and eye damage.

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

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

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 difficulties if inhaled. H335 May cause respiratory irritation. H351 Suspected of causing cancer.

Acute Tox. — Acute toxicity - inhalation

Acute 1ox. — Acute toxicity - Innalation
Eye Irrit. — Eye irritation
STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation
Skin Irrit. — Skin irritation
Resp. Sens. — Respiratory sensitization
Skin Sens. — Skin sensitization

- Carcinogenicity

Carc. — Carcinogenicity STOT RE — Specific target organ toxicity - repeated exposure

Acute Tox. — Acute toxicity - oral
Acute Tox. — Acute toxicity - dermal
Skin Corr. — Skin corrosion
Eye Dam. — Serious eye damage

# Any abbreviations and acronyms used in this document:

acc., acc ACGIH ADR

Article Categories
act. to according, according to

IH American Conference of Governmental Industrial Hygienists
Accord européen relatif au transport international des marchandises Dangereuses par Route (=

European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOEL Acceptable Operator Exposure Level
AOX Adsorbable organic halogen compounds
approx. approximately

Art., Art. no.Article number ATE Acute Toxicity

Actute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)

Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and BAM Testing, Ge

Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health Germany)

Bioconcentration factor BAuA and Safety, BCF

Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation) BGV Berungenosan vanious v BHT **BMGV** BOD BSEF

body weight Chemical Abstracts Service

bw CAS CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants

and Other CESIO CIPAC CLP

and Other Fluids
CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques
CIPAC Collaborative International Pesticides Analytical Council
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR carcinogenic, mutagenic, reproductive toxic
COD Chemical oxygen demand
CTFA Cosmetic, Toiletry, and Fragrance Association
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
DOC Dissolved organic carbon

DOC DT50

Dissolved organic carbon
Dwell Time - 50% reduction of start concentration
Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for
d Allied Processes) DVS Welding

dry weight

e.g. EC for example (abbreviation of Latin 'exempli gratia'), for instance

European Community European Chemicals Agency **FCHA** EEA EEC EINECS ELINCS

European Cenomic Area
European Economic Area
European Economic Community
European Inventory of Existing Commercial Chemical Substances
European List of Notified Chemical Substances

ΕN European Norms United States Environmental Protection Agency (United States of America)

EPA ERC ES Environmental Release Categories Exposure scenario

etc. EU et cetera European Union **EWC** 

Fax. gen. GHS

European Waste Catalogue
Fax number
general
Globally Harmonized System of Classification and Labelling of Chemicals

GWP

Global warming potential
Global warming potential
Hen's Egg Test - Chorionallantoic Membrane
Halocarbon Global Warming Potential
International Agency for Research on Cancer
International Air Transport Association
Intermediate Bulk Container
International Bulk Chemical (Code)
Inhibition, concentration HET-CAM HGWP IARC IBC IBC (Code)

Inhibitory concentration IMDG-code

International Maritime Code for Dangerous Goods including, inclusive International Uniform Chemical Information Database lethal concentration

LC LC50 LCLo lethal concentration 50 percent kill lowest published lethal concentration ΙĎ

Lethal Dose of a chemical Lethal Dose, 50% kill Lethal Dose Low Lowest Observed Adverse Effect Level LD50 LDLo LOAEL LOEC

Lowest Observed Effect Concentration LOFI Lowest Observed Effect Level I O Limited Quantities

MARPOL International Convention for the Prevention of Marine Pollution from Ships not applicable n.a.

n.av. not available not checked n.d.a

NIOSH National Institute of Occupational Safety and Health (United States of America)



Page 9 of 9
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 25.04.2019 / 0008
Replacing version dated / version: 07.03.2017 / 0007
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COSMO PU-160.230
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COSMO PU-160.231 (COSMOPUR VP 1568)

NOAEC NOAEL NOEC No Observed Adverse Effective Concentration No Observed Adverse Effect Level No Observed Effect Concentration NOEL ODP OECD

No Observed Effect Level
Ozone Depletion Potential
Organisation for Economic Co-operation and Development

org. PAH organic

polycyclic aromatic hydrocarbon persistent, bioaccumulative and toxic PBT Polyethylene
Predicted No Effect Concentration
Photochemical ozone creation potential PC PE PNEC POCP

parts per million ppm PROC

ppm parts per million
PROC Process category
PTFE REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SADT Self-Accelerating Decomposition Temperature
SAR Structure Activity Relationship
SU Sector of use

SU

Sector of use Substances of Very High Concern Telephone Theoretical oxygen demand SVHC

Tel. ThOD

ThOU Ineoretical oxygen demand
TOC Total organic carbon
TRGS Total organic carbon
Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG
United Nations Recommendations on the Transport of Dangerous Goods
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))
VOC Volatile organic compounds
VPVB very persistent and very bioaccumulative
WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA
(= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure
limit (15-minute reference period) (EH40, UK).

World Health Organization

WHO World Health Organization

wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they

not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.

These statements were made by:

Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

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