

SDS P4000 pages 2-23

SDS P6000 pages 24-42

SDS P7000 pages 43-61

according to Regulation (EC) No. 1907/2006



#### P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

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

1.1 Product identifier

Trade name : P4000

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

Use of the : Curing chemical

Substance/Mixture

Recommended restrictions :

on use

For use in industrial installations or professional treatment

only.

1.3 Details of the supplier of the safety data sheet

Company : Roberlo s.a.

Ctra. Nacional II, Km. 706,5 17457 Riudellots de la Selva

Spain

Telephone : +34972478060

Telefax : +34972477394

E-mail address of person

responsible for the SDS

: msds@roberlo.com

#### 1.4 Emergency telephone number

+34 972 478060 (8:00-12:45 / 14:15-17:30 h) ROBERLO (Spain) (GMT + 1:00)

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

#### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3 H226: Flammable liquid and vapour.

Skin irritation, Category 2 H315: Causes skin irritation.

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

Specific target organ toxicity - single exposure, Category 3, Central nervous

system

H336: May cause drowsiness or dizziness.

Specific target organ toxicity - repeated

exposure, Category 2

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

Aspiration hazard, Category 1 H304: May be fatal if swallowed and enters

airways.

according to Regulation (EC) No. 1907/2006



#### P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

Chronic aquatic toxicity, Category 2 H411: Toxic to aquatic life with long lasting effects.

#### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :





Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or

repeated exposure if inhaled.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements : Prevention:

P210 Keep away from heat, hot surfaces, sparks, open

flames and other ignition sources. No smoking.

P280 Wear protective gloves/ protective clothing/ eye

protection/ face protection.P260 Do not breathe vapours.P260 Do not breathe spray.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON

CENTER/doctor.

P331 Do NOT induce vomiting.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

Hazardous components which must be listed on the label:

HDI oligomers, isocyanurate Hydrocarbons, C9, aromatics xylene (mixture of isomers) n-butyl acetate

#### **Additional Labelling**

EUH204 Contains isocyanates. May produce an allergic reaction.

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

2/22

according to Regulation (EC) No. 1907/2006



# P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

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

#### 3.2 Mixtures

Chemical nature : Paint

# **Hazardous components**

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
HDI oligomers, isocyanurate	28182-81-2 500-060-2 01-2119485796-17	Acute Tox. 4; H332 Skin Sens. 1; H317 STOT SE 3; H335	>= 30 - < 50
Hydrocarbons, C9, aromatics	Not Assigned 918-668-5 01-2119455851-35	Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H335 STOT SE 3; H336, EUH066 Aquatic Chronic 2; H411	>= 20 - < 25
xylene (mixture of isomers)	1330-20-7 215-535-7 601-022-00-9 01-2119488216-32	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 STOT RE 2; H373 Asp. Tox. 1; H304	>= 1 - < 10
n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	Flam. Liq. 3; H226 STOT SE 3; H336	>= 1 - < 10
Solvent naphtha (petroleum), light arom.	64742-95-6 265-199-0 649-356-00-4	Flam. Liq. 3; H226 STOT SE 3; H335 STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 1 - < 2.5
ethylbenzene	100-41-4 202-849-4 601-023-00-4 01-2119489370-35	Flam. Liq. 2; H225 Acute Tox. 4; H332 STOT RE 2; H373 Asp. Tox. 1; H304 Aquatic Chronic 3; H412	>= 1 - < 2.5
Substances with a workplace expo- 2-methoxy-1-methylethyl acetate	sure limit : 108-65-6 203-603-9 607-195-00-7 01-2119475791-29	Flam. Liq. 3; H226	>= 20 - < 30

For explanation of abbreviations see section 16.

according to Regulation (EC) No. 1907/2006

# roberlo

#### P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

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

#### 4.1 Description of first aid measures

General advice : Move out of dangerous area.

Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later.

Do not leave the victim unattended.

If inhaled : Consult a physician after significant exposure.

If unconscious, place in recovery position and seek medical

advice.

In case of skin contact : If skin irritation persists, call a physician.

If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact : Flush eyes with water as a precaution.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.

Do NOT induce vomiting.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician. Take victim immediately to hospital.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Inhalation may provoke the following symptoms:

Headache Vertigo Fatigue

Skin contact may provoke the following symptoms:

Redness

Ingestion may provoke the following symptoms:

Abdominal pain

Vomiting Diarrhoea

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

Treatment : In case of ingestion, the stomach should be emptied by gastric

lavage under qualified medical supervision.

# **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam

Carbon dioxide (CO2)

according to Regulation (EC) No. 1907/2006



#### P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

Dry chemical

Unsuitable extinguishing

media

High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during

firefighting

: Do not allow run-off from fire fighting to enter drains or water

courses.

Hazardous combustion

products

No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment:

for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored

separately in closed containments.

Use a water spray to cool fully closed containers.

#### **SECTION 6: Accidental release measures**

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

Personal precautions : Use personal protective equipment.

Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

#### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible

absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to

local / national regulations (see section 13).

according to Regulation (EC) No. 1907/2006

# roberlo

#### P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

#### 6.4 Reference to other sections

For contact information in case of emergency, see section 1. For information on safe handling, see section 7. For exposure controls and personal protection measures, see section 8. For subsequent waste disposal, follow the recommendations in section 13.

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

#### 7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of aerosol.

Do not breathe vapours/dust.

Avoid exposure - obtain special instructions before use.

Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the

application area.

Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national

regulations.

Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being

used.

Advice on protection against

fire and explosion

Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures : When using do not eat or drink. When using do not smoke.

Wash hands before breaks and at the end of workday.

#### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

No smoking. Keep container tightly closed in a dry and wellventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working

materials must comply with the technological safety

standards.

Storage period : 12 Months

Further information on

storage stability

No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : For the use of this product do not exist particular

recommendations apart from that already indicated.

according to Regulation (EC) No. 1907/2006



# P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

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

# 8.1 Control parameters

# **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form	Control parameters	Basis		
LIDI alimana ana	20402.04.0	of exposure)	0.00 =====	OD ELIAO		
HDI oligomers,	28182-81-2	TWA	0.02 mg/m3	GB EH40		
isocyanurate	0.1.1		(as -NCO)			
Further information			ational asthma (also known a			
			duce a state of specific airwa			
			ical, irritant or other mechani			
			onsive, further exposure to th			
			may cause respiratory symp			
			om a runny nose to asthma.			
			ill become hyper-responsive			
			hose who are likely to becom			
	responsive. 5	54 Substances that c	an cause occupational asthn	na should be		
			ich may trigger the symptom			
			per-responsiveness, but which			
			he latter substances are not			
	asthmagens of	or respiratory sensitis	sers., Wherever it is reasonal	oly practicable,		
	exposure to s	ubstances that can o	cause occupational asthma s	hould be		
			ble, the primary aim is to app			
			rkers from becoming hyper-r			
	substances th	at can cause occupa	ational asthma, COSHH requ	ires that		
			reasonably practicable. Activ			
			should receive particular atte			
	management	is being considered.	Health surveillance is appro	priate for all		
	employees ex	posed or liable to be	e exposed to a substance wh	ich may cause		
			ould be appropriate consulta			
		occupational health professional over the degree of risk and level of				
		surveillance., Capable of causing occupational asthma. The identified				
	substances ar	substances are those which: - are assigned the risk phrase 'R42: May cause				
	sensitisation b	sensitisation by inhalation'; or 'R42/43: May cause sensitisation by inhalation				
	and skin contact' or - are listed in section C of HSE publication 'Asthmagen?					
	Critical assess	Critical assessments of the evidence for agents implicated in occupational				
	asthma' as up	dated from time to ti	me, or any other substance v	which the risk		
			tential cause of occupational			
			as been assigned only to the			
	which may ca	use occupational as	thma.			
	-	STEL	0.07 mg/m3	GB EH40		
			(as -NCO)			
Further information	Substances th	nat can cause occup	ational asthma (also known a	as asthmagens		
			duce a state of specific airwa			
			ical, irritant or other mechani			
			onsive, further exposure to th			
			may cause respiratory symp			
			om a runny nose to asthma.			
			ill become hyper-responsive			
			hose who are likely to becom			
	responsive. 54 Substances that can cause occupational asthma should be distinguished from substances which may trigger the symptoms of asthma in					
	aloui galorioa		a, angger and eymptom	5 51 GGG/////G ///		

according to Regulation (EC) No. 1907/2006



# P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

2 mothovy 1	people with pre-existing airway hyper-responsiveness, but which do not include the disease themselves. The latter substances are not classified asthmagens or respiratory sensitisers., Wherever it is reasonably practicable, exposure to substances that can cause occupational asthma should be prevented. Where this is not possible, the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive. For substances that can cause occupational asthma, COSHH requires that exposure be reduced as low as is reasonably practicable. Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance., Capable of causing occupational asthma. The identified substances are those which: - are assigned the risk phrase 'R42: May cause sensitisation by inhalation'; or 'R42/43: May cause sensitisation by inhalation and skin contact' or - are listed in section C of HSE publication 'Asthmagen? Critical assessments of the evidence for agents implicated in occupational asthma' as updated from time to time, or any other substance which the risk assessment has shown to be a potential cause of occupational asthma., The 'Sen' notation in the list of WELs has been assigned only to those substances which may cause occupational asthma.				
2-methoxy-1-	108-65-6	TWA	50 ppm 275 mg/m3	2000/39/EC	
methylethyl acetate			275 mg/m3		
Further information	Identifies the	possibility of significa	ant uptake through the skin, I	ndicative	
		STEL	100 ppm	2000/39/EC	
			550 mg/m3		
Further information	Identifies the		ant uptake through the skin, I		
		TWA	50 ppm 274 mg/m3	GB EH40	
Further information			e assigned substances are t		
	there are con-		sorption will lead to systemic		
		STEL	100 ppm	GB EH40	
Further information	Can be absor	 hed through skin. Th	548 mg/m3 e assigned substances are t	nose for which	
			sorption will lead to systemic		
xylene (mixture of	1330-20-7	TWA	50 ppm	GB EH40	
isomers)			220 mg/m3		
Further information			ne assigned substances are t		
	there are con-		sorption will lead to systemic		
		STEL	100 ppm 441 mg/m3	GB EH40	
Further information			ne assigned substances are t		
	there are con-		sorption will lead to systemic		
		TWA	50 ppm 221 mg/m3	2000/39/EC	
Further information	Identifies the		ant uptake through the skin, I		
		STEL	100 ppm	2000/39/EC	
Frontle and in face of	lalametera er	nandhille - f 1 16	442 mg/m3	a ali a a Alice -	
Further information			ant uptake through the skin, I		
n-butyl acetate	123-86-4	TWA	150 ppm 724 mg/m3	GB EH40	

according to Regulation (EC) No. 1907/2006



# P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

		STEL	200 ppm 966 mg/m3	GB EH40
ethylbenzene	100-41-4	TWA	100 ppm 442 mg/m3	2000/39/EC
Further information	Identifies the	possibility of signification	ant uptake through the skin, I	ndicative
		STEL	200 ppm 884 mg/m3	2000/39/EC
Further information	Identifies the	possibility of signification	ant uptake through the skin, I	ndicative
		TWA	100 ppm 441 mg/m3	GB EH40
Further information			ne assigned substances are to sorption will lead to systemic	
		STEL	125 ppm 552 mg/m3	GB EH40
Further information			ne assigned substances are to sorption will lead to systemic	
HDI oligomers, isocyanurate	28182-81-2	TWA	0.02 mg/m3 (as -NCO)	GB EH40
	responsivener airways have sometimes ever symptoms can who are exposible to responsive. Sometimes ever sponsive of the strangener of the s	ss via an immunologibecome hyper-responsent to tiny quantities in range in severity from sed to a sensitiser with identify in advance to the Substances that conform substances who sease themselves. To respiratory sensition ubstances that can chere this is not possible to prevent wo leat can cause occupated as low as is peak concentrations is being considered as low as is peak concentrations is being considered as the sense of causing the those which: - are by inhalation'; or 'R4: act' or - are listed in sments of the evider dated from time to the sense occupational as occupational as		ism. Once the lie substance, potoms. These Not all workers and it is ne hyperna should be so of asthma in ch do not classified ply practicable, hould be ply adequate esponsive. For all ich may cause tion with an vel of entified 42: May cause in by inhalation in 'Asthmagen? ccupational which the risk I asthma., The pse substances
	j	STEL	0.07 mg/m3 (as -NCO)	GB EH40
Further information	Substances th	nat can cause occup	ational asthma (also known a	as asthmagens

according to Regulation (EC) No. 1907/2006



# P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

and respiratory sensitisers) can induce a state of specific airway hyperresponsiveness via an immunological, irritant or other mechanism. Once the airways have become hyper-responsive, further exposure to the substance. sometimes even to tiny quantities, may cause respiratory symptoms. These symptoms can range in severity from a runny nose to asthma. Not all workers who are exposed to a sensitiser will become hyper-responsive and it is impossible to identify in advance those who are likely to become hyperresponsive. 54 Substances that can cause occupational asthma should be distinguished from substances which may trigger the symptoms of asthma in people with pre-existing airway hyper-responsiveness, but which do not include the disease themselves. The latter substances are not classified asthmagens or respiratory sensitisers., Wherever it is reasonably practicable, exposure to substances that can cause occupational asthma should be prevented. Where this is not possible, the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive. For substances that can cause occupational asthma, COSHH requires that exposure be reduced as low as is reasonably practicable. Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance., Capable of causing occupational asthma. The identified substances are those which: - are assigned the risk phrase 'R42: May cause sensitisation by inhalation; or 'R42/43: May cause sensitisation by inhalation and skin contact' or - are listed in section C of HSE publication 'Asthmagen? Critical assessments of the evidence for agents implicated in occupational asthma' as updated from time to time, or any other substance which the risk assessment has shown to be a potential cause of occupational asthma., The 'Sen' notation in the list of WELs has been assigned only to those substances which may cause occupational asthma. 2000/39/EC 2-methoxy-1-108-65-6 TWA 50 ppm methylethyl 275 mg/m3 acetate Further information Identifies the possibility of significant uptake through the skin, Indicative **STEL** 100 ppm 2000/39/EC 550 ma/m3 Identifies the possibility of significant uptake through the skin, Indicative Further information **TWA** 50 ppm GB EH40 274 mg/m3 Further information Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity. GB EH40 STEL 100 ppm 548 mg/m3 Further information Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity. xylene (mixture of 1330-20-7 TWA 50 ppm GB EH40 220 mg/m3 isomers) Can be absorbed through skin. The assigned substances are those for which Further information there are concerns that dermal absorption will lead to systemic toxicity. STFL 100 ppm GB EH40 441 mg/m3 Can be absorbed through skin. The assigned substances are those for which Further information

according to Regulation (EC) No. 1907/2006



# P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

	there are concerns that dermal absorption will lead to systemic toxicity.			
		TWA	50 ppm	2000/39/EC
			221 mg/m3	
Further information	Identifies the	possibility of significa	ant uptake through the skin, I	ndicative
		STEL	100 ppm	2000/39/EC
			442 mg/m3	
Further information	Identifies the	possibility of signification	ant uptake through the skin, I	ndicative
n-butyl acetate	123-86-4	TWA	150 ppm	GB EH40
-			724 mg/m3	
		STEL	200 ppm	GB EH40
			966 mg/m3	
ethylbenzene	100-41-4	TWA	100 ppm	2000/39/EC
			442 mg/m3	
Further information	Identifies the	possibility of significa	ant uptake through the skin, I	ndicative
		STEL	200 ppm	2000/39/EC
			884 mg/m3	
Further information	Identifies the	possibility of significa	ant uptake through the skin, I	ndicative
		TWA	100 ppm	GB EH40
			441 mg/m3	
Further information	Can be absorbed through skin. The assigned substances are those for which			
	there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL	125 ppm	GB EH40
			552 mg/m3	
Further information	Can be absor	bed through skin. Th	e assigned substances are t	hose for which
	there are concerns that dermal absorption will lead to systemic toxicity.			

# **Biological occupational exposure limits**

Substance name	CAS-No.	Control parameters	Sampling time	Basis
HDI oligomers,	28182-81-2	urinary diamine: 1	Post task	GB EH40
isocyanurate		µmol/mol		BAT
		creatinine		
		(Urine)		

# Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
2-methoxy-1- methylethyl acetate	Workers	Inhalation	Long-term systemic effects	275 mg/m3
xylene	Workers	Inhalation	Long-term systemic effects	77 mg/m3
n-butyl acetate	Workers	Inhalation	Long-term systemic effects	480 mg/m3
Low boiling point naphtha - unspecified	Workers	Inhalation	Long-term systemic effects	608 mg/m3
ethylbenzene	Workers	Inhalation	Long-term systemic effects	77 mg/m3

# 8.2 Exposure controls

# Personal protective equipment

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

according to Regulation (EC) No. 1907/2006



#### P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

Hand protection

Material : Solvent-resistant gloves

Skin and body protection : Impervious clothing

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : In the case of vapour formation use a respirator with an

approved filter.

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

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : colourless

Odour : characteristic

Melting point/range : not determined

Boiling point/boiling range : not determined

Flash point : 35 °C

Method: ISO 1523, closed cup

Setaflash

Upper explosion limit / Upper

flammability limit

: not determined

Lower explosion limit / Lower

flammability limit

not determined

Vapour pressure : not determined

Density : 0.990 g/cm3 (20 °C)

Method: ISO 2811-1

Solubility(ies)

Water solubility : immiscible

Viscosity

Viscosity, dynamic : 22 mPa.s (20 °C)

Method: ISO 2555

Viscosity, kinematic : < 20.5 mm2/s (40 °C)

#### 9.2 Other information

No data available

according to Regulation (EC) No. 1907/2006

# roberlo

#### P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

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

#### 10.1 Reactivity

No decomposition if stored and applied as directed.

#### 10.2 Chemical stability

No decomposition if stored and applied as directed.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : No data available

#### 10.6 Hazardous decomposition products

No data available

#### **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

#### **Acute toxicity**

#### **Product:**

Acute inhalation toxicity : Acute toxicity estimate: 10 - 20 mg/l

Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute toxicity estimate: > 20 mg/l

Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg

Method: Calculation method

#### **Components:**

#### HDI oligomers, isocyanurate:

Acute oral toxicity : LD50 Oral (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 0.543 mg/l

Exposure time: 4 h

according to Regulation (EC) No. 1907/2006

# roberlo°

#### P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 402

Hydrocarbons, C9, aromatics:

Acute oral toxicity : LD50 Oral (Rat): 8,400 mg/kg

Acute inhalation toxicity : LC50 (Rat): 3400 ppm

Exposure time: 4 h
Test atmosphere: vapour

xylene (mixture of isomers):

Acute oral toxicity : LD50 Oral (Rat): 4,300 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 22.08 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Method: OECD Test Guideline 403

Acute dermal toxicity : Acute toxicity estimate: 1,100 mg/kg

Method: Converted acute toxicity point estimate

n-butyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 10,768 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 23.4 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 17,600 mg/kg

Method: OECD Test Guideline 402

Solvent naphtha (petroleum), light arom.:

Acute oral toxicity : LD50 Oral (Rat): 3,592 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 20 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): 3,160 mg/kg

Method: OECD Test Guideline 402

ethylbenzene:

Acute oral toxicity : LD50 Oral (Rat): 3,500 mg/kg

Method: OECD Test Guideline 401

according to Regulation (EC) No. 1907/2006



#### P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

Acute inhalation toxicity : LC50 (Rat): 17.4 mg/l

Exposure time: 4 h Test atmosphere: gas

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 15,400 mg/kg

Method: OECD Test Guideline 402

2-methoxy-1-methylethyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 8,532 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 35.7 mg/l

Exposure time: 4 h Test atmosphere: gas

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat): 5,000 mg/kg

Method: OECD Test Guideline 402

Skin corrosion/irritation

**Product:** 

Result: Skin irritation

Serious eye damage/eye irritation

**Product:** 

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin.

Respiratory or skin sensitisation

**Product:** 

Result: May cause sensitisation by skin contact.

Germ cell mutagenicity

**Product:** 

Germ cell mutagenicity-

: Based on available data, the classification criteria are not met.

Assessment

Carcinogenicity

**Product:** 

Carcinogenicity -

: Based on available data, the classification criteria are not met.

Assessment

according to Regulation (EC) No. 1907/2006



#### P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

#### Reproductive toxicity

**Product:** 

Reproductive toxicity -

: Based on available data, the classification criteria are not met.

Assessment

#### STOT - single exposure

#### **Product:**

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

#### STOT - repeated exposure

#### **Product:**

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

# **Aspiration toxicity**

#### **Product:**

May be fatal if swallowed and enters airways.

#### **Further information**

#### **Product:**

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Concentrations substantially above the TLV value may cause narcotic effects.

Solvents may degrease the skin.

#### **SECTION 12: Ecological information**

#### 12.1 Toxicity

#### **Components:**

#### HDI oligomers, isocyanurate:

Toxicity to algae : EC50 (Algae): 370 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

#### Hydrocarbons, C9, aromatics:

Toxicity to fish : LC50 (Fish): 9.22 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 6.14 mg/l

Exposure time: 48 h

according to Regulation (EC) No. 1907/2006

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#### P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

xylene (mixture of isomers):

Toxicity to fish : LC50 (Fish): 14 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 16 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): > 10 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

n-butyl acetate:

Toxicity to fish : LC50 (Fish): 18 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 32 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 675 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Solvent naphtha (petroleum), light arom.:

Toxicity to fish : LC50 (Fish): 9.2 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 3.2 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 2.9 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

ethylbenzene:

Toxicity to fish : LC50 (Fish): 12 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 1.8 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 33 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

according to Regulation (EC) No. 1907/2006

# roberlo

#### P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

2-methoxy-1-methylethyl acetate:

Toxicity to fish : LC50 (Fish): 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 408 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 1,000 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

12.2 Persistence and degradability

**Product:** 

Biodegradability : Remarks: No data available

12.3 Bioaccumulative potential

**Product:** 

Bioaccumulation : Remarks: No data available

12.4 Mobility in soil

**Product:** 

Stability in soil : Remarks: No data available

12.5 Results of PBT and vPvB assessment

**Product:** 

Assessment : This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher...

12.6 Other adverse effects

**Product:** 

Additional ecological

information

An environmental hazard cannot be excluded in the event of

unprofessional handling or disposal.

Toxic to aquatic life with long lasting effects.

**SECTION 13: Disposal considerations** 

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with

according to Regulation (EC) No. 1907/2006



#### P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

chemical or used container.

Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

Do not burn, or use a cutting torch on, the empty drum.

#### **SECTION 14: Transport information**

14.1 UN number

IMDG : UN 1263 IATA (Cargo) : UN 1263

14.2 UN proper shipping name

ADR : PAINT RELATED MATERIAL IMDG : PAINT RELATED MATERIAL

IATA (Cargo) : Paint related material

14.3 Transport hazard class(es)

 ADR
 : 3

 IMDG
 : 3

 IATA (Cargo)
 : 3

14.4 Packing group

**ADR** 

Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3

**IMDG** 

Packing group : III
Labels : 3
EmS Code : F-E, S-E

IATA (Cargo)

Packing instruction (cargo : 366

aircraft)

Packing instruction (LQ) : Y344
Packing group : III

Labels : Flammable Liquids

14.5 Environmental hazards

**ADR** 

Environmentally hazardous : no

**IMDG** 

Marine pollutant : no

according to Regulation (EC) No. 1907/2006



#### P4000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51230

#### 14.6 Special precautions for user

Not applicable

#### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

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

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of

major-accident hazards involving dangerous substances.

Quantity 1 Quantity 2 P<sub>5</sub>c FLAMMABLE LIQUIDS 5,000 t 50,000 t E2 **ENVIRONMENTAL** 200 t 500 t **HAZARDS** 34 Petroleum products: (a) 2,500 t 25,000 t gasolines and naphthas.

(b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d)

heavy fuel oils (e)

alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in

points (a) to (d)

#### Other regulations:

The product is classified and labelled in accordance with EC directives or respective national laws.

#### 15.2 Chemical safety assessment

The supplier has not carried out evaluation of chemical safety.

#### **SECTION 16: Other information**

# **Full text of H-Statements**

EUH066 : Repeated exposure may cause skin dryness or cracking.

H225 : Highly flammable liquid and vapour. H226 : Flammable liquid and vapour.

H304 : May be fatal if swallowed and enters airways.

H312 : Harmful in contact with skin.
H315 : Causes skin irritation.

H317 : May cause an allergic skin reaction.

20 / 22

according to Regulation (EC) No. 1907/2006



#### P4000

Version 2.0	Revision Date: 19.02.2018	SDS Number: H51230
H319		Causes serious eye irritation.
H332	:	Harmful if inhaled.
H335	:	May cause respiratory irritation.
H336	:	May cause drowsiness or dizziness.
H373	:	May cause damage to organs through prolonged or repeated exposure.
H373	:	May cause damage to organs through prolonged or repeated exposure if inhaled.
H411	:	Toxic to aquatic life with long lasting effects.
H412	:	Harmful to aquatic life with long lasting effects.

#### Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Chronic : Chronic aquatic toxicity
Asp. Tox. : Aspiration hazard
Eye Irrit. : Eye irritation
Flam. Liq. : Flammable liquids
Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation

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

2000/39/EC : Europe. Commission Directive 2000/39/EC establishing a first

list of indicative occupational exposure limit values

GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
GB EH40 BAT : UK. Biological monitoring guidance values

2000/39/EC / TWA : Limit Value - eight hours 2000/39/EC / STEL : Short term exposure limit

GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate: NZIoC - New Zealand Inventory of Chemicals: OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship;

according to Regulation (EC) No. 1907/2006



# P4000

Version Revision Date: SDS Number: 19.02.2018 H51230 2.0

REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID -Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

#### **Further information**

compile the Safety Data

Sheet

Sources of key data used to : http://echa.europa.eu, http://eur-lex.europa.eu

Classification procedure:

#### Classification of the mixture:

Flam. Liq. 3	H226	Based on product data or assessment
Skin Irrit. 2	H315	Based on product data or assessment
Skin Sens. 1	H317	Calculation method
STOT SE 3	H336	Based on product data or assessment
STOT RE 2	H373	Calculation method
Asp. Tox. 1	H304	Based on product data or assessment
Aquatic Chronic 2	H411	Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GB / EN

according to Regulation (EC) No. 1907/2006



#### P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

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

1.1 Product identifier

Trade name : P6000

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

Use of the : Curing chemical

Substance/Mixture

Recommended restrictions

on use

For use in industrial installations or professional treatment

only

1.3 Details of the supplier of the safety data sheet

Company : Roberlo s.a.

Ctra. Nacional II, Km. 706,5 17457 Riudellots de la Selva

Spain

Telephone : +34972478060

Telefax : +34972477394

E-mail address of person

responsible for the SDS

: msds@roberlo.com

#### 1.4 Emergency telephone number

+34 972 478060 (8:00-12:45 / 14:15-17:30 h) ROBERLO (Spain) (GMT + 1:00)

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

#### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3 H226: Flammable liquid and vapour.

Acute toxicity, Category 4 H332: Harmful if inhaled.

Skin irritation, Category 2 H315: Causes skin irritation.

Eye irritation, Category 2 H319: Causes serious eye irritation.

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

Specific target organ toxicity - single exposure, Category 3, Central nervous

system

H336: May cause drowsiness or dizziness.

Specific target organ toxicity - repeated H373: May cause damage to organs through

according to Regulation (EC) No. 1907/2006

# roberlo

#### P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

exposure, Category 2 prolonged or repeated exposure if inhaled.

Aspiration hazard, Category 1 H304: May be fatal if swallowed and enters

airways.

#### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :





Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or

repeated exposure if inhaled.

Precautionary statements : Prevention:

P210 Keep away from heat, hot surfaces, sparks, open

flames and other ignition sources. No smoking.

P280 Wear protective gloves/ protective clothing/ eye

protection/ face protection.P260 Do not breathe vapours.P260 Do not breathe spray.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON

CENTER/doctor.

P331 Do NOT induce vomiting.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

Hazardous components which must be listed on the label:

HDI oligomers, isocyanurate n-butyl acetate

xylene (mixture of isomers)

ethylbenzene

**Additional Labelling** 

EUH204 Contains isocyanates. May produce an allergic reaction.

according to Regulation (EC) No. 1907/2006



# P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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

#### 3.2 Mixtures

Chemical nature : Paint

#### **Hazardous components**

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
HDI oligomers, isocyanurate	28182-81-2 500-060-2 01-2119485796-17	Acute Tox. 4; H332 Skin Sens. 1; H317 STOT SE 3; H335	>= 30 - < 50
n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	Flam. Liq. 3; H226 STOT SE 3; H336	>= 30 - < 50
xylene (mixture of isomers)	1330-20-7 215-535-7 601-022-00-9 01-2119488216-32	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 STOT RE 2; H373 Asp. Tox. 1; H304	>= 10 - < 20
ethylbenzene	100-41-4 202-849-4 601-023-00-4 01-2119489370-35	Flam. Liq. 2; H225 Acute Tox. 4; H332 STOT RE 2; H373 Asp. Tox. 1; H304 Aquatic Chronic 3; H412	>= 2.5 - < 10
Solvent naphtha (petroleum), light arom.	64742-95-6 265-199-0 649-356-00-4	Flam. Liq. 3; H226 STOT SE 3; H335 STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 1 - < 2.5

For explanation of abbreviations see section 16.

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

#### 4.1 Description of first aid measures

General advice : Move out of dangerous area.

Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later.

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#### P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

Do not leave the victim unattended.

If inhaled : Consult a physician after significant exposure.

If unconscious, place in recovery position and seek medical

advice.

In case of skin contact : If skin irritation persists, call a physician.

If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact : Flush eyes with water as a precaution.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.

Do NOT induce vomiting.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician. Take victim immediately to hospital.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Inhalation may provoke the following symptoms:

Headache Vertigo Fatigue

Skin contact may provoke the following symptoms:

Redness

Ingestion may provoke the following symptoms:

Abdominal pain

Vomiting Diarrhoea

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

Treatment : In case of ingestion, the stomach should be emptied by gastric

lavage under qualified medical supervision.

#### **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam

Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

: High volume water jet

according to Regulation (EC) No. 1907/2006



#### P6000

**Revision Date:** SDS Number: Version 29.01.2018 2.0 H51231

#### 5.2 Special hazards arising from the substance or mixture

Specific hazards during

firefighting

Do not allow run-off from fire fighting to enter drains or water :

courses.

Hazardous combustion

products

No hazardous combustion products are known

#### 5.3 Advice for firefighters

for firefighters

Special protective equipment : In the event of fire, wear self-contained breathing apparatus.

Further information Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored

separately in closed containments.

Use a water spray to cool fully closed containers.

# **SECTION 6: Accidental release measures**

# 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment.

> Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

#### 6.2 Environmental precautions

Environmental precautions Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

#### 6.3 Methods and material for containment and cleaning up

Contain spillage, and then collect with non-combustible Methods for cleaning up

> absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to

local / national regulations (see section 13).

#### 6.4 Reference to other sections

For contact information in case of emergency, see section 1. For information on safe handling, see section 7. For exposure controls and personal protection measures, see section 8. For subsequent waste disposal, follow the recommendations in section 13.

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

#### 7.1 Precautions for safe handling

according to Regulation (EC) No. 1907/2006

# roberlo

#### P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

Advice on safe handling : Avoid formation of aerosol.

Do not breathe vapours/dust.

Avoid exposure - obtain special instructions before use.

Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the

application area.

Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national

regulations.

Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being

used.

Advice on protection against

fire and explosion

Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures

When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

#### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Observe label precautions. Electrical installations / working materials must comply with the technological safety

standards.

Storage period : 12 Months

Further information on

storage stability

: No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : For the use of this product do not exist particular

recommendations apart from that already indicated.

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

#### 8.1 Control parameters

#### **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
HDI oligomers, isocyanurate	28182-81-2	TWA	0.02 mg/m3 (as -NCO)	GB EH40

according to Regulation (EC) No. 1907/2006



# P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

#### Further information

Substances that can cause occupational asthma (also known as asthmagens and respiratory sensitisers) can induce a state of specific airway hyperresponsiveness via an immunological, irritant or other mechanism. Once the airways have become hyper-responsive, further exposure to the substance, sometimes even to tiny quantities, may cause respiratory symptoms. These symptoms can range in severity from a runny nose to asthma. Not all workers who are exposed to a sensitiser will become hyper-responsive and it is impossible to identify in advance those who are likely to become hyperresponsive. 54 Substances that can cause occupational asthma should be distinguished from substances which may trigger the symptoms of asthma in people with pre-existing airway hyper-responsiveness, but which do not include the disease themselves. The latter substances are not classified asthmagens or respiratory sensitisers., Wherever it is reasonably practicable, exposure to substances that can cause occupational asthma should be prevented. Where this is not possible, the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive. For substances that can cause occupational asthma, COSHH requires that exposure be reduced as low as is reasonably practicable. Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance., Capable of causing occupational asthma. The identified substances are those which: - are assigned the risk phrase 'R42: May cause sensitisation by inhalation'; or 'R42/43: May cause sensitisation by inhalation and skin contact' or - are listed in section C of HSE publication 'Asthmagen? Critical assessments of the evidence for agents implicated in occupational asthma' as updated from time to time, or any other substance which the risk assessment has shown to be a potential cause of occupational asthma., The 'Sen' notation in the list of WELs has been assigned only to those substances which may cause occupational asthma.

STEL 0.07 mg/m3 GB EH40 (as -NCO)

# Further information

Substances that can cause occupational asthma (also known as asthmagens and respiratory sensitisers) can induce a state of specific airway hyperresponsiveness via an immunological, irritant or other mechanism. Once the airways have become hyper-responsive, further exposure to the substance. sometimes even to tiny quantities, may cause respiratory symptoms. These symptoms can range in severity from a runny nose to asthma. Not all workers who are exposed to a sensitiser will become hyper-responsive and it is impossible to identify in advance those who are likely to become hyperresponsive. 54 Substances that can cause occupational asthma should be distinguished from substances which may trigger the symptoms of asthma in people with pre-existing airway hyper-responsiveness, but which do not include the disease themselves. The latter substances are not classified asthmagens or respiratory sensitisers., Wherever it is reasonably practicable, exposure to substances that can cause occupational asthma should be prevented. Where this is not possible, the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive. For substances that can cause occupational asthma, COSHH requires that exposure be reduced as low as is reasonably practicable. Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all

according to Regulation (EC) No. 1907/2006



# P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

	employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance., Capable of causing occupational asthma. The identified substances are those which: - are assigned the risk phrase 'R42: May cause sensitisation by inhalation'; or 'R42/43: May cause sensitisation by inhalation and skin contact' or - are listed in section C of HSE publication 'Asthmagen? Critical assessments of the evidence for agents implicated in occupational asthma' as updated from time to time, or any other substance which the risk assessment has shown to be a potential cause of occupational asthma., The 'Sen' notation in the list of WELs has been assigned only to those substances which may cause occupational asthma.					
n-butyl acetate	123-86-4	TWA	150 ppm	GB EH40		
		OTEL	724 mg/m3	OD 51140		
		STEL	200 ppm 966 mg/m3	GB EH40		
xylene (mixture of	1330-20-7	TWA	50 ppm	GB EH40		
isomers)	1330-20-7	1 1 1 1 1	220 mg/m3	GD LI 140		
Further information	Can be absor	bed through skin. Th	ne assigned substances are t	hose for which		
			sorption will lead to systemic			
		STEL 100 ppm GB EH40				
			441 mg/m3			
Further information	Can be absorbed through skin. The assigned substances are those for which					
	there are concerns that dermal absorption will lead to systemic toxicity.					
		TWA	50 ppm	2000/39/EC		
Further information	Identifies the	naacibility of cianific	221 mg/m3	n di a a tiv a		
Further information	identifies the	possibility of signification	ant uptake through the skin, I	2000/39/EC		
		SIEL	100 ppm 442 mg/m3	2000/39/EC		
Further information	Identifies the	l nossibility of signific:	ant uptake through the skin, I	l ndicative		
ethylbenzene	100-41-4	TWA	100 ppm	2000/39/EC		
Citty ib Cit 2 Cit C	100 41 4	1 **/ (	442 mg/m3	2000/00/20		
Further information	Identifies the	possibility of significa	ant uptake through the skin, I	ndicative		
		STEL	200 ppm	2000/39/EC		
			884 mg/m3			
Further information	Identifies the	possibility of significa	ant uptake through the skin, I	ndicative		
		TWA	100 ppm	GB EH40		
			441 mg/m3			
Further information			ne assigned substances are t			
	there are con-		sorption will lead to systemic			
		STEL	125 ppm	GB EH40		
Further information	Con ho obser	had through akin. Th	552 mg/m3	haaa far which		
Further information			ne assigned substances are t			
	there are concerns that dermal absorption will lead to systemic toxicity.					

# **Biological occupational exposure limits**

Substance name	CAS-No.	Control parameters	Sampling time	Basis
HDI oligomers, isocyanurate	28182-81-2	urinary diamine: 1 µmol/mol creatinine (Urine)	Post task	GB EH40 BAT

according to Regulation (EC) No. 1907/2006



#### P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
n-butyl acetate	Workers	Inhalation	Long-term systemic effects	480 mg/m3
xylene	Workers	Inhalation	Long-term systemic effects	77 mg/m3
ethylbenzene	Workers	Inhalation	Long-term systemic effects	77 mg/m3
Low boiling point naphtha - unspecified	Workers	Inhalation	Long-term systemic effects	608 mg/m3

#### 8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Hand protection

Material : Solvent-resistant gloves

Skin and body protection : Impervious clothing

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : In the case of vapour formation use a respirator with an

approved filter.

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

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

Appearance : liquid

Colour : colourless

Odour : characteristic

pH : Not applicable

Melting point/range : not determined

Boiling point/boiling range : not determined

Flash point : 28 °C

Method: ISO 1523, closed cup

Setaflash

Upper explosion limit / Upper :

flammability limit

not determined

Lower explosion limit / Lower : not determined

according to Regulation (EC) No. 1907/2006



#### P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

flammability limit

Vapour pressure : not determined

Density : 0.970 g/cm3 (20 °C)

Method: ISO 2811-1

Solubility(ies)

Water solubility : immiscible

Viscosity

Viscosity, dynamic : 20 mPa.s (20 °C)

Method: ISO 2555

Viscosity, kinematic : < 20.5 mm2/s (40 °C)

#### 9.2 Other information

No data available

# **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

No decomposition if stored and applied as directed.

#### 10.2 Chemical stability

No decomposition if stored and applied as directed.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents

Strong acids and strong bases

#### 10.6 Hazardous decomposition products

No data available

# **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

**Acute toxicity** 

**Product:** 

according to Regulation (EC) No. 1907/2006



#### P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

Acute inhalation toxicity : Acute toxicity estimate: 18.03 mg/l

Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg

Method: Calculation method

#### **Components:**

HDI oligomers, isocyanurate:

Acute oral toxicity : LD50 Oral (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 0.543 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 402

n-butyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 10,768 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 23.4 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 17,600 mg/kg

Method: OECD Test Guideline 402

xylene (mixture of isomers):

Acute oral toxicity : LD50 Oral (Rat): 4,300 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 22.08 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Method: OECD Test Guideline 403

Acute dermal toxicity : Acute toxicity estimate: 1,100 mg/kg

Method: Converted acute toxicity point estimate

ethylbenzene:

Acute oral toxicity : LD50 Oral (Rat): 3,500 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 17.4 mg/l

Exposure time: 4 h

according to Regulation (EC) No. 1907/2006



#### P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

Test atmosphere: gas

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 15,400 mg/kg

Method: OECD Test Guideline 402

Solvent naphtha (petroleum), light arom.:

Acute oral toxicity : LD50 Oral (Rat): 3,592 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 20 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): 3,160 mg/kg

Method: OECD Test Guideline 402

Skin corrosion/irritation

**Product:** 

Result: Skin irritation

Serious eye damage/eye irritation

**Product:** 

Remarks: Severe eye irritation

Respiratory or skin sensitisation

**Product:** 

Result: May cause sensitisation by skin contact.

Germ cell mutagenicity

**Product:** 

Germ cell mutagenicity-

Assessment

: Based on available data, the classification criteria are not met.

Carcinogenicity

**Product:** 

Carcinogenicity - Assessment

: Based on available data, the classification criteria are not met.

Reproductive toxicity

**Product:** 

Reproductive toxicity -

Assessment

: Based on available data, the classification criteria are not met.

12 / 19

according to Regulation (EC) No. 1907/2006

# roberlo

#### P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

#### STOT - single exposure

#### **Product:**

**Exposure routes: Inhalation** 

Target Organs: Central nervous system

Assessment: The substance or mixture is classified as specific target organ toxicant, single

exposure, category 3 with narcotic effects.

#### STOT - repeated exposure

#### **Product:**

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

#### **Aspiration toxicity**

#### **Product:**

May be fatal if swallowed and enters airways.

#### **Further information**

#### **Product:**

Remarks: Based on available data, the classification criteria are not met.

#### **SECTION 12: Ecological information**

#### 12.1 Toxicity

#### **Components:**

# HDI oligomers, isocyanurate:

Toxicity to algae : EC50 (Algae): 370 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

#### n-butyl acetate:

Toxicity to fish : LC50 (Fish): 18 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 32 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 675 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

#### xylene (mixture of isomers):

Toxicity to fish : LC50 (Fish): 14 mg/l

13 / 19

according to Regulation (EC) No. 1907/2006



# P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 16 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): > 10 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

ethylbenzene:

Toxicity to fish : LC50 (Fish): 12 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 1.8 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 33 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Solvent naphtha (petroleum), light arom.:

Toxicity to fish : LC50 (Fish): 9.2 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 3.2 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 2.9 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

12.2 Persistence and degradability

**Product:** 

Biodegradability : Remarks: No data available

12.3 Bioaccumulative potential

**Product:** 

Bioaccumulation : Remarks: No data available

12.4 Mobility in soil

**Product:** 

Stability in soil : Remarks: No data available

14 / 19

according to Regulation (EC) No. 1907/2006



# P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

### 12.5 Results of PBT and vPvB assessment

**Product:** 

Assessment : This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher...

12.6 Other adverse effects

**Product:** 

Additional ecological

information

: There is no data available for this product.

# **SECTION 13: Disposal considerations**

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with

chemical or used container.

Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

Do not burn, or use a cutting torch on, the empty drum.

# **SECTION 14: Transport information**

14.1 UN number

IMDG : UN 1263 IATA (Cargo) : UN 1263

14.2 UN proper shipping name

ADR : PAINT RELATED MATERIAL IMDG : PAINT RELATED MATERIAL

IATA (Cargo) : Paint related material

14.3 Transport hazard class(es)

 ADR
 : 3

 IMDG
 : 3

 IATA (Cargo)
 : 3

14.4 Packing group

according to Regulation (EC) No. 1907/2006



# P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

**ADR** 

Packing group : III
Classification Code : F1
Hazard Identification Number : 30
Labels : 3

**IMDG** 

Packing group : III Labels : 3

EmS Code : F-E, <u>S-E</u>

IATA (Cargo)

Packing instruction (cargo : 366

aircraft)

Packing instruction (LQ) : Y344
Packing group : III

Labels : Flammable Liquids

14.5 Environmental hazards

**ADR** 

Environmentally hazardous : no

**IMDG** 

Marine pollutant : no

14.6 Special precautions for user

Not applicable

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

Not applicable for product as supplied.

# **SECTION 15: Regulatory information**

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

P5c PLAMMABLE LIQUIDS Quantity 1 Quantity 2 50,000 t

34 Petroleum products: (a) 2,500 t 25,000 t

gasolines and naphthas, (b) kerosenes (including jet

fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d)

heavy fuel oils (e)

alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in

according to Regulation (EC) No. 1907/2006



# P6000

**Revision Date:** SDS Number: Version 29.01.2018 2.0 H51231

points (a) to (d)

# Other regulations:

The product is classified and labelled in accordance with EC directives or respective national laws.

# 15.2 Chemical safety assessment

The supplier has not carried out evaluation of chemical safety.

### **SECTION 16: Other information**

### **Full text of H-Statements**

H225 Highly flammable liquid and vapour. H226

Flammable liquid and vapour.

May be fatal if swallowed and enters airways. H304

Harmful in contact with skin. H312 Causes skin irritation. H315

H317

May cause an allergic skin reaction. H319 Causes serious eve irritation.

Harmful if inhaled. H332

H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated

exposure.

H373 May cause damage to organs through prolonged or repeated

exposure if inhaled.

Toxic to aquatic life with long lasting effects. H411 H412 Harmful to aquatic life with long lasting effects.

#### Full text of other abbreviations

Acute Tox. Acute toxicity

Aquatic Chronic Chronic aquatic toxicity Asp. Tox. Aspiration hazard Eve Irrit. Eve irritation Flam. Liq. Flammable liquids Skin Irrit. Skin irritation Skin Sens. Skin sensitisation

STOT RE Specific target organ toxicity - repeated exposure STOT SE Specific target organ toxicity - single exposure

2000/39/EC Europe. Commission Directive 2000/39/EC establishing a first

list of indicative occupational exposure limit values

GB EH40 UK. EH40 WEL - Workplace Exposure Limits UK. Biological monitoring guidance values GB EH40 BAT

2000/39/EC / TWA Limit Value - eight hours Short term exposure limit 2000/39/EC / STEL

GB EH40 / TWA Long-term exposure limit (8-hour TWA reference period) GB EH40 / STEL Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive

according to Regulation (EC) No. 1907/2006



# P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID -Regulations concerning the International Carriage of Dangerous Goods by Rail: SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

#### **Further information**

Sheet

Sources of key data used to compile the Safety Data

Sources of key data used to : http://echa.europa.eu, http://eur-lex.europa.eu

# Classification of the mixture:

# Classification procedure:

Flam. Liq. 3	H226	Based on product data or assessment
Acute Tox. 4	H332	Calculation method
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Skin Sens. 1	H317	Calculation method
STOT SE 3	H336	Based on product data or assessment
STOT RE 2	H373	Calculation method
Asp. Tox. 1	H304	Based on product data or assessment

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GB / EN

according to Regulation (EC) No. 1907/2006



# P6000

Version Revision Date: SDS Number: 2.0 29.01.2018 H51231

according to Regulation (EC) No. 1907/2006



# P7000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51232

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

1.1 Product identifier

Trade name : P7000

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

Use of the : Curing chemical

Substance/Mixture

Recommended restrictions : Fo

on use

For use in industrial installations or professional treatment

only.

1.3 Details of the supplier of the safety data sheet

Company : Roberlo s.a.

Ctra. Nacional II, Km. 706,5 17457 Riudellots de la Selva

Spain

Telephone : +34972478060

Telefax : +34972477394

E-mail address of person

responsible for the SDS

: msds@roberlo.com

# 1.4 Emergency telephone number

+34 972 478060 (8:00-12:45 / 14:15-17:30 h) ROBERLO (Spain) (GMT + 1:00)

# **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture

# Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 2 H225: Highly flammable liquid and vapour.

Skin irritation, Category 2 H315: Causes skin irritation.

Eye irritation, Category 2 H319: Causes serious eye irritation.

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

Reproductive toxicity, Category 2 H361d: Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure, Category 3, Central nervous

system

H336: May cause drowsiness or dizziness.

Specific target organ toxicity - repeated H373: May cause damage to organs through

according to Regulation (EC) No. 1907/2006

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# P7000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51232

exposure, Category 2, Central nervous

system

prolonged or repeated exposure if inhaled.

Aspiration hazard, Category 1 H304: May be fatal if swallowed and enters

airways.

## 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H361d Suspected of damaging the unborn child.
H373 May cause damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.

Precautionary statements : Prevention:

P210 Keep away from heat, hot surfaces, sparks, open

flames and other ignition sources. No smoking.

P280 Wear protective gloves/ protective clothing/ eye

protection/ face protection.
P260 Do not breathe vapours.
P260 Do not breathe spray.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON

CENTER/doctor.

P331 Do NOT induce vomiting.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

Hazardous components which must be listed on the label:

HDI oligomers, isocyanurate

toluene

xylene (mixture of isomers)

Solvent naphtha (petroleum), light arom.

**Additional Labelling** 

EUH204 Contains isocyanates. May produce an allergic reaction.

according to Regulation (EC) No. 1907/2006



# P7000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51232

# 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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

# 3.2 Mixtures

Chemical nature : Paint

# **Hazardous components**

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
HDI oligomers, isocyanurate	28182-81-2 500-060-2 01-2119485796-17	Acute Tox. 4; H332 Skin Sens. 1; H317 STOT SE 3; H335	>= 30 - < 50
toluene	108-88-3 203-625-9 601-021-00-3 01-2119471310-51	Flam. Liq. 2; H225 Skin Irrit. 2; H315 Repr. 2; H361d STOT SE 3; H336 STOT RE 2; H373 Asp. Tox. 1; H304	>= 20 - < 30
n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	Flam. Liq. 3; H226 STOT SE 3; H336	>= 10 - < 20
ethyl acetate	141-78-6 205-500-4 607-022-00-5 01-2119475103-46	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	>= 10 - < 20
xylene (mixture of isomers)	1330-20-7 215-535-7 601-022-00-9 01-2119488216-32	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 STOT RE 2; H373 Asp. Tox. 1; H304	>= 1 - < 10
Solvent naphtha (petroleum), light arom.	64742-95-6 265-199-0 649-356-00-4	Flam. Liq. 3; H226 STOT SE 3; H335 STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 1 - < 2.5

For explanation of abbreviations see section 16.

according to Regulation (EC) No. 1907/2006

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# P7000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51232

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

# 4.1 Description of first aid measures

General advice : Move out of dangerous area.

Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later.

Do not leave the victim unattended.

If inhaled : Consult a physician after significant exposure.

If unconscious, place in recovery position and seek medical

advice.

In case of skin contact : If skin irritation persists, call a physician.

If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact : Flush eyes with water as a precaution.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.

Do NOT induce vomiting.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician. Take victim immediately to hospital.

# 4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Inhalation may provoke the following symptoms:

Headache Vertigo Fatigue

Skin contact may provoke the following symptoms:

Redness

Ingestion may provoke the following symptoms:

Abdominal pain

Vomiting Diarrhoea

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

Treatment : In case of ingestion, the stomach should be emptied by gastric

lavage under qualified medical supervision.

# **SECTION 5: Firefighting measures**

# 5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam

Carbon dioxide (CO2)

according to Regulation (EC) No. 1907/2006

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# P7000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51232

Dry chemical

Unsuitable extinguishing

media

High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during

firefighting

: Do not allow run-off from fire fighting to enter drains or water

courses.

Hazardous combustion

products

No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment:

for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored

separately in closed containments.

Use a water spray to cool fully closed containers.

# **SECTION 6: Accidental release measures**

# 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible

absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to

local / national regulations (see section 13).

according to Regulation (EC) No. 1907/2006

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# P7000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51232

#### 6.4 Reference to other sections

For contact information in case of emergency, see section 1. For information on safe handling, see section 7. For exposure controls and personal protection measures, see section 8. For subsequent waste disposal, follow the recommendations in section 13.

# **SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of aerosol.

Do not breathe vapours/dust.

Avoid exposure - obtain special instructions before use.

Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the

application area.

Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.

regulations.

Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being

used.

Advice on protection against

fire and explosion

Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot

surfaces and sources of ignition.

Hygiene measures : When using do not eat or drink. When using do not smoke.

Wash hands before breaks and at the end of workday.

# 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be

carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety

standards.

Storage period : 12 Months

Further information on

storage stability

: No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : For the use of this product do not exist particular

recommendations apart from that already indicated.

according to Regulation (EC) No. 1907/2006



# P7000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51232

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

# 8.1 Control parameters

# **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
HDI oligomers, isocyanurate	28182-81-2	TWA	0.02 mg/m3 (as -NCO)	GB EH40
Further information	and respirator responsiveneral airways have sometimes every symptoms can who are exposible to responsive. Substances the exposure to substances the exposure be responsive to short-term management employees exposure to short-term management em	ry sensitisers) can in ss via an immunolog become hyper-respondent to tiny quantities, in range in severity from sed to a sensitiser with identify in advance to 4 Substances that conform substances who re-existing airway hy sease themselves. To respiratory sensition ubstances that can chere this is not possition to prevent wo reduced as low as is peak concentrations is being considered as the peak concentration is being considered as the peak concentration in the listed in sments of the evider of the evider of the list of WELs have occupational as		ay hyper- ism. Once the le substance, lotoms. These Not all workers and it is le hyper- lina should be s of asthma in lich do not classified bly practicable, hould be loly adequate responsive. For lires that littles giving rise lention when risk priate for all lich may cause tion with an lich do not lich may cause lich with an lich may cause lich ma
		STEL	0.07 mg/m3 (as -NCO)	GB EH40
Further information	Substances that can cause occupational asthma (also known as asthmagens and respiratory sensitisers) can induce a state of specific airway hyper-responsiveness via an immunological, irritant or other mechanism. Once the airways have become hyper-responsive, further exposure to the substance, sometimes even to tiny quantities, may cause respiratory symptoms. These symptoms can range in severity from a runny nose to asthma. Not all workers who are exposed to a sensitiser will become hyper-responsive and it is impossible to identify in advance those who are likely to become hyper-responsive. 54 Substances that can cause occupational asthma should be distinguished from substances which may trigger the symptoms of asthma in			

according to Regulation (EC) No. 1907/2006



# P7000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51232

	people with pre-existing airway hyper-responsiveness, but which do not include the disease themselves. The latter substances are not classified asthmagens or respiratory sensitisers., Wherever it is reasonably practicable, exposure to substances that can cause occupational asthma should be prevented. Where this is not possible, the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive. For substances that can cause occupational asthma, COSHH requires that exposure be reduced as low as is reasonably practicable. Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance., Capable of causing occupational asthma. The identified substances are those which: - are assigned the risk phrase 'R42: May cause sensitisation by inhalation'; or 'R42/43: May cause sensitisation by inhalation and skin contact' or - are listed in section C of HSE publication 'Asthmagen? Critical assessments of the evidence for agents implicated in occupational asthma' as updated from time to time, or any other substance which the risk assessment has shown to be a potential cause of occupational asthma., The 'Sen' notation in the list of WELs has been assigned only to those substances which may cause occupational asthma.			
toluene	108-88-3	TWA	50 ppm 192 mg/m3	2006/15/EC
Further information	Indicative, Ide	entifies the possibility	of significant uptake through	n the skin
	,	STEL	100 ppm 384 mg/m3	2006/15/EC
Further information	Indicative, Ide	entifies the possibility	of significant uptake through	n the skin
		TWA	50 ppm 191 mg/m3	GB EH40
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
	there are con-			GB EH40
		STEL	100 ppm 384 mg/m3	
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
n-butyl acetate	123-86-4	TWA	150 ppm 724 mg/m3	GB EH40
		STEL	200 ppm 966 mg/m3	GB EH40
ethyl acetate	141-78-6	TWA	200 ppm	GB EH40
-		STEL	400 ppm	GB EH40
		STEL	400 ppm 1,468 mg/m3	2017/164/EU
Further information	Indicative	1		1
		TWA	200 ppm 734 mg/m3	2017/164/EU
Further information	Indicative	L	1 7 5 7 mg/mo	1
xylene (mixture of	1330-20-7	TWA	50 ppm	GB EH40
isomers)			220 mg/m3	
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
	andre are com	STEL	100 ppm	GB EH40
	]	l OILL	100 ppiii	

according to Regulation (EC) No. 1907/2006



# P7000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51232

			441 mg/m3	
Further information			e assigned substances are t	
	there are concerns that dermal absorption will lead to systemic toxicity.			
		TWA	50 ppm	2000/39/EC
			221 mg/m3	
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	100 ppm	2000/39/EC
			442 mg/m3	
Further information	Identifies the possibility of significant uptake through the skin, Indicative			

# **Biological occupational exposure limits**

Substance name	CAS-No.	Control parameters	Sampling time	Basis
HDI oligomers, isocyanurate	28182-81-2	urinary diamine: 1 µmol/mol creatinine (Urine)	Post task	GB EH40 BAT

# Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
toluene	Workers	Inhalation	Long-term systemic effects	147 mg/m3
n-butyl acetate	Workers	Inhalation	Long-term systemic effects	480 mg/m3
ethyl acetate	Workers	Inhalation	Long-term systemic effects	734 mg/m3
xylene	Workers	Inhalation	Long-term systemic effects	77 mg/m3
Low boiling point naphtha - unspecified	Workers	Inhalation	Long-term systemic effects	608 mg/m3

# 8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Hand protection

Material : Solvent-resistant gloves

Skin and body protection : Impervious clothing

Choose body protection according to the amount and

concentration of the dangerous substance at the work place.

Respiratory protection : In the case of vapour formation use a respirator with an

approved filter.

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

# 9.1 Information on basic physical and chemical properties

Appearance : liquid

according to Regulation (EC) No. 1907/2006

# P7000

Version Revision Date: SDS Number: 19.02.2018 H51232 2.0

Colour : colourless

Odour : characteristic

рН : Not applicable

Melting point/range : not determined

Boiling point/boiling range : not determined

Flash point : 7 °C

Method: ISO 1523, closed cup

Setaflash

Upper explosion limit / Upper : not determined

flammability limit

Lower explosion limit / Lower : not determined

flammability limit

Vapour pressure : not determined

Density : 0.975 g/cm3 (20 °C)

Method: ISO 2811-1

Solubility(ies)

Water solubility : immiscible

Viscosity

Viscosity, dynamic : 20 mPa.s (20 °C)

Method: ISO 2555

: < 20 mm2/s (40 °C) Viscosity, kinematic

### 9.2 Other information

No data available

# **SECTION 10: Stability and reactivity**

# 10.1 Reactivity

No decomposition if stored and applied as directed.

# 10.2 Chemical stability

No decomposition if stored and applied as directed.

# 10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

Vapours may form explosive mixture with air.

### 10.4 Conditions to avoid

according to Regulation (EC) No. 1907/2006

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# P7000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51232

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

No data available

**SECTION 11: Toxicological information** 

11.1 Information on toxicological effects

**Acute toxicity** 

**Product:** 

Acute inhalation toxicity : Acute toxicity estimate: 10 - 20 mg/l

Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute toxicity estimate: > 20 mg/l

Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg

Method: Calculation method

**Components:** 

HDI oligomers, isocyanurate:

Acute oral toxicity : LD50 Oral (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 0.543 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 402

toluene:

Acute inhalation toxicity : LC50 (Rat): 28.1 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Method: OECD Test Guideline 403

n-butyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 10,768 mg/kg

Method: OECD Test Guideline 401

according to Regulation (EC) No. 1907/2006

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# P7000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51232

Acute inhalation toxicity : LC50 (Rat): 23.4 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 17,600 mg/kg

Method: OECD Test Guideline 402

ethyl acetate:

Acute oral toxicity : LD50 Oral (Rat): 5,620 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 44 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 18,000 mg/kg

Method: OECD Test Guideline 402

xylene (mixture of isomers):

Acute oral toxicity : LD50 Oral (Rat): 4,300 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): 22.08 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Method: OECD Test Guideline 403

Acute dermal toxicity : Acute toxicity estimate: 1,100 mg/kg

Method: Converted acute toxicity point estimate

Solvent naphtha (petroleum), light arom.:

Acute oral toxicity : LD50 Oral (Rat): 3,592 mg/kg

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 20 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): 3,160 mg/kg

Method: OECD Test Guideline 402

Skin corrosion/irritation

**Product:** 

Result: Skin irritation

according to Regulation (EC) No. 1907/2006

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# P7000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51232

# Serious eye damage/eye irritation

# **Product:**

Remarks: Severe eye irritation

# Respiratory or skin sensitisation

### **Product:**

Result: May cause sensitisation by skin contact.

# Germ cell mutagenicity

### **Product:**

Germ cell mutagenicity-

Assessment

: Based on available data, the classification criteria are not met.

# Carcinogenicity

### **Product:**

Carcinogenicity - Assessment

.

: Based on available data, the classification criteria are not met.

# Reproductive toxicity

# **Product:**

Reproductive toxicity -

Assessment

Suspected of damaging the unborn child.

# STOT - single exposure

# **Product:**

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

### STOT - repeated exposure

### **Product:**

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

# **Aspiration toxicity**

## **Product:**

May be fatal if swallowed and enters airways.

# **Further information**

# **Product:**

Remarks: Based on available data, the classification criteria are not met.

according to Regulation (EC) No. 1907/2006



# P7000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51232

# **SECTION 12: Ecological information**

# 12.1 Toxicity

# **Components:**

HDI oligomers, isocyanurate:

Toxicity to algae : EC50 (Algae): 370 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

n-butyl acetate:

Toxicity to fish : LC50 (Fish): 18 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 32 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 675 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

ethyl acetate:

Toxicity to fish : LC50 (Fish): 212 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 164 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): > 100 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

xylene (mixture of isomers):

Toxicity to fish : LC50 (Fish): 14 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 16 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): > 10 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

### Solvent naphtha (petroleum), light arom.:

according to Regulation (EC) No. 1907/2006

# roberlo

# P7000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51232

Toxicity to fish : LC50 (Fish): 9.2 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia (water flea)): 3.2 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 2.9 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

# 12.2 Persistence and degradability

**Product:** 

Biodegradability : Remarks: No data available

# 12.3 Bioaccumulative potential

**Product:** 

Bioaccumulation : Remarks: No data available

12.4 Mobility in soil

**Product:** 

Stability in soil : Remarks: No data available

### 12.5 Results of PBT and vPvB assessment

**Product:** 

Assessment : This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher...

# 12.6 Other adverse effects

**Product:** 

Additional ecological

information

An environmental hazard cannot be excluded in the event of

unprofessional handling or disposal.

Harmful to aquatic life with long lasting effects.

# **SECTION 13: Disposal considerations**

## 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with

chemical or used container.

Send to a licensed waste management company.

according to Regulation (EC) No. 1907/2006

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# P7000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51232

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

Do not burn, or use a cutting torch on, the empty drum.

# **SECTION 14: Transport information**

14.1 UN number

IMDG : UN 1263 IATA (Cargo) : UN 1263

14.2 UN proper shipping name

ADR : PAINT RELATED MATERIAL IMDG : PAINT RELATED MATERIAL

IATA (Cargo) : Paint related material

14.3 Transport hazard class(es)

 ADR
 : 3

 IMDG
 : 3

 IATA (Cargo)
 : 3

14.4 Packing group

**ADR** 

Packing group : II
Classification Code : F1
Hazard Identification Number : 33
Labels : 3

**IMDG** 

Packing group : II
Labels : 3
EmS Code : F-E, S-E

IATA (Cargo)

Packing instruction (cargo : 364

aircraft)

Packing instruction (LQ) : Y341
Packing group : II

Labels : Flammable Liquids

14.5 Environmental hazards

**ADR** 

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

Not applicable

according to Regulation (EC) No. 1907/2006



# P7000

Version **Revision Date:** SDS Number: 19.02.2018 H51232 2.0

# 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

## **SECTION 15: Regulatory information**

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Quantity 1 Quantity 2 P<sub>5</sub>c FLAMMABLE LIQUIDS 5,000 t 50,000 t 34 Petroleum products: (a) 2,500 t 25,000 t

> gasolines and naphthas. (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e)

alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d)

# Other regulations:

The product is classified and labelled in accordance with EC directives or respective national laws.

# 15.2 Chemical safety assessment

The supplier has not carried out evaluation of chemical safety.

### **SECTION 16: Other information**

### **Full text of H-Statements**

H225 Highly flammable liquid and vapour. Flammable liquid and vapour. H226 May be fatal if swallowed and enters airways. H304 H312 Harmful in contact with skin. Causes skin irritation. H315 May cause an allergic skin reaction. H317 H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. Suspected of damaging the unborn child. H361d H373

May cause damage to organs through prolonged or repeated

exposure.

according to Regulation (EC) No. 1907/2006



# P7000

Version Revision Date: SDS Number: 2.0 19.02.2018 H51232

H373 : May cause damage to organs through prolonged or repeated

exposure if inhaled.

H411 : Toxic to aquatic life with long lasting effects.

### Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Chronic

Asp. Tox.

Eye Irrit.

Flam. Liq.

Repr.

Skin Irrit.

Skin Sens.

Chronic aquatic toxicity

Aspiration hazard

Eye irritation

Flammable liquids

Reproductive toxicity

Skin irritation

Skin sensitisation

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

2000/39/EC : Europe. Commission Directive 2000/39/EC establishing a first

list of indicative occupational exposure limit values

2006/15/EC : Europe. Indicative occupational exposure limit values

2017/164/EU : Commission Directive (EU) 2017/164 establishing a fourth list

of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU

GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
GB EH40 BAT : UK. Biological monitoring guidance values

2000/39/EC / TWA : Limit Value - eight hours 2000/39/EC / STEL : Short term exposure limit 2006/15/EC / TWA : Limit Value - eight hours 2006/15/EC / STEL : Short term exposure limit 2017/164/EU / STEL : Short term exposure limit 2017/164/EU / TWA : Limit Value - eight hours

GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic

according to Regulation (EC) No. 1907/2006



# P7000

Revision Date: SDS Number: Version 19.02.2018 H51232 2.0

Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID -Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

#### **Further information**

Sources of key data used to : http://echa.europa.eu, http://eur-lex.europa.eu compile the Safety Data

Sheet

#### Classification of the mixture: Classification procedure:

Flam. Liq. 2	H225	Based on product data or assessment
Skin Irrit. 2	H315	Based on product data or assessment
Eye Irrit. 2	H319	Calculation method
Skin Sens. 1	H317	Calculation method
Repr. 2	H361d	Calculation method
STOT SE 3	H336	Based on product data or assessment
STOT RE 2	H373	Based on product data or assessment
Asp. Tox. 1	H304	Based on product data or assessment

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GB / EN