

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.06.2015

V- 1

Revision: 29.06.2015

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

1.1 Product identifier

Trade name: 5:1 FILLER THN - HARDENER FAST

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

Identified uses: professional use.

Uses advised against: do-it-yourself

Application of the substance / the mixture Hardening agent/ Curing agent

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Chemical Alliance Polska Sp. z o.o.

ul. Prosta 23, Łozienica

72-100 Goleniów

Tel. +48 91 41 65 440

Fax: +48 91 41 65 487

info@cap.pl

Further information obtainable from: sds@cap.pl

1.4 Emergency telephone number: +48 91 41 65 440 (8:00-16:00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS08

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



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms



GHS02



GHS07



GHS08

Signal word Danger

Hazard-determining components of labelling:

hexamethylene diisocyanate homopolymer

n-butyl acetate

toluene-diisocyanate

aromatic polyisocyanate

tosyl isocyanate

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.06.2015

V- 1

Revision: 29.06.2015

Trade name: 5:1 FILLER THN - HARDENER FAST

(Contd. of page 1)

Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

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

H317 May cause an allergic skin reaction.

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

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 Avoid breathing mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P284 In case of inadequate ventilation wear respiratory protection.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

Contains isocyanates. May produce an allergic reaction.

2.3 Other hazards**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****3.2 Chemical characterisation: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
CAS: 123-86-4 EINECS: 204-658-1 Reg.nr.: 01-2119485493-29	n-butyl acetate ----- ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	25-50%
CAS: 28182-81-2 NLP: 500-060-2 Reg.nr.: 01-2119485796-17	hexamethylene diisocyanate homopolymer ----- ⚠ Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	10-25%
CAS: 53317-61-6 NLP: 500-120-8	aromatic polyisocyanate ----- ⚠ Eye Irrit. 2, H319; Skin Sens. 1, H317	10-25%
CAS: 108-65-6 EINECS: 203-603-9 Reg.nr.: 01-2119475791-29	2-methoxy-1-methylethyl acetate ----- ⚠ Flam. Liq. 3, H226	5-15%
CAS: 141-78-6 EINECS: 205-500-4 Reg.nr.: 01-2119475103-46	ethyl acetate ----- ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	1-5%
CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32	xylene ----- ⚠ Flam. Liq. 3, H226; ⚠ STOT RE 2, H373; Asp. Tox. 1, H304; ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	1-5%
CAS: 4083-64-1 EINECS: 223-810-8 Reg.nr.: 01-2119980050-47	tosyl isocyanate ----- ⚠ Resp. Sens. 1, H334; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	0.1-<1%
CAS: 26471-62-5 EINECS: 247-722-4 Reg.nr.: 01-2119454791-34	toluene-diisocyanate ----- ⚠ Acute Tox. 1, H330; ⚠ Resp. Sens. 1, H334; Carc. 2, H351; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Chronic 3, H412	0.1-<0.5%

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

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.06.2015

V- 1

Revision: 29.06.2015

Trade name: 5:1 FILLER THN - HARDENER FAST

(Contd. of page 2)

SECTION 4: First aid measures**4.1 Description of first aid measures****General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Immediately remove any clothing soiled by the product.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Take affected persons out of danger area and lay down.

After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

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

After swallowing: Do not induce vomiting; call for medical help immediately.

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

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing agents: CO₂, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture

Can form explosive gas-air mixtures.

Formation of toxic gases is possible during heating or in case of fire.

Hydrogen cyanide (HCN)

Isocyanate vapors.

Carbon monoxide and carbon dioxide

5.3 Advice for firefighters**Protective equipment:**

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

Additional information

Cool endangered receptacles with water spray.

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

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources.

Avoid contact with the eyes and skin.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Do not flush with water or aqueous cleansing agents

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.06.2015

V- 1

Revision: 29.06.2015

Trade name: 5:1 FILLER THN - HARDENER FAST

(Contd. of page 3)

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Do not eat, drink, smoke or sniff while working.

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

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Use explosion-proof apparatus / fittings and spark-proof tools.

Fumes can combine with air to form an explosive mixture.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: Store only in the original receptacle.

Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidising agents.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

Store receptacle in a well ventilated area.

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

SECTION 8: Exposure controls/personal protection

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

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:	
123-86-4 n-butyl acetate	
WEL (Great Britain)	Short-term value: 966 mg/m ³ , 200 ppm Long-term value: 724 mg/m ³ , 150 ppm
108-65-6 2-methoxy-1-methylethyl acetate	
WEL (Great Britain)	Short-term value: 548 mg/m ³ , 100 ppm Long-term value: 274 mg/m ³ , 50 ppm Sk
IOELV (EU)	Short-term value: 550 mg/m ³ , 100 ppm Long-term value: 275 mg/m ³ , 50 ppm Skin
141-78-6 ethyl acetate	
WEL (Great Britain)	Short-term value: 400 ppm Long-term value: 200 ppm
1330-20-7 xylene	
WEL (Great Britain)	Short-term value: 441 mg/m ³ , 100 ppm Long-term value: 220 mg/m ³ , 50 ppm Sk; BMGV
IOELV (EU)	Short-term value: 442 mg/m ³ , 100 ppm Long-term value: 221 mg/m ³ , 50 ppm Skin

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.06.2015

V- 1

Revision: 29.06.2015

Trade name: 5:1 FILLER THN - HARDENER FAST

(Contd. of page 4)

4083-64-1 tosyl isocyanate		
WEL (Great Britain)		Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
26471-62-5 toluene-diisocyanate		
WEL (Great Britain)		Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
DNELs		
123-86-4 n-butyl acetate		
Dermal	DNEL	7 mg/kg bw/day (long-term - systemic effects, workers)
Inhalative	DNEL	960 mg/m ³ (acute - systemic effects, workers) 960 mg/m ³ (acute - local effects, workers) 480 mg/m ³ (long-term - systemic effects, workers) 480 mg/m ³ (long-term - local effects, workers)
28182-81-2 hexamethylene diisocyanate homopolymer		
Inhalative	DNEL	1 mg/m ³ (acute - local effects, workers) 0.5 mg/m ³ (long-term - local effects, workers)
108-65-6 2-methoxy-1-methylethyl acetate		
Dermal	DNEL	153.5 mg/kg bw/day (long-term - systemic effects, workers)
Inhalative	DNEL	275 mg/m ³ (long-term - systemic effects, workers)
141-78-6 ethyl acetate		
Dermal	DNEL	63 mg/kg bw/day (long-term - systemic effects, workers)
Inhalative	DNEL	1468 mg/m ³ (acute - systemic effects, workers) 1468 mg/m ³ (acute - local effects, workers) 734 mg/m ³ (long-term - systemic effects, workers) 734 mg/m ³ (long-term - local effects, workers)
1330-20-7 xylene		
Dermal	DNEL	180 mg/kg bw/day (long-term - systemic effects, workers)
Inhalative	DNEL	289 mg/m ³ (acute - systemic effects, workers) 289 mg/m ³ (acute - local effects, workers) 77 mg/m ³ (long-term - systemic effects, workers) 77 mg/m ³ (long-term - local effects, workers)
4083-64-1 tosyl isocyanate		
Dermal	DNEL	0.92 mg/kg bw/day (long-term - systemic effects, workers)
Inhalative	DNEL	3.24 mg/m ³ (long-term - systemic effects, workers)
PNECs		
123-86-4 n-butyl acetate		
PNEC		0.18 mg/l (freshwater environment) 0.018 mg/l (marine environment) 0.36 mg/l (intermittent releases) 0.981 mg/kg (freshwater sediment environment) 35.6 mg/l (sewage treatment plants)
28182-81-2 hexamethylene diisocyanate homopolymer		
PNEC		0.127 mg/l (freshwater environment) 0.0127 mg/l (marine environment)

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.06.2015

V- 1

Revision: 29.06.2015

Trade name: 5:1 FILLER THN - HARDENER FAST

(Contd. of page 5)

	1.27 mg/l (intermittent releases) 266700 mg/kg (freshwater sediment environment) 26670 mg/kg (marine sediment environment) 53182 mg/kg (soil) 38.3 mg/l (sewage treatment plants)
108-65-6 2-methoxy-1-methylethyl acetate	
PNEC	0.635 mg/l (freshwater environment) 0.0635 mg/l (marine environment) 6.35 mg/l (intermittent releases) 3.29 mg/kg (freshwater sediment environment) 0.329 mg/kg (marine sediment environment) 100 mg/l (sewage treatment plants)
141-78-6 ethyl acetate	
PNEC	0.24 mg/l (freshwater environment) 0.024 mg/l (marine environment) 1.65 mg/l (intermittent releases) 1.15 mg/kg (freshwater sediment environment) 0.115 mg/kg (marine sediment environment) 650 mg/l (sewage treatment plants)
1330-20-7 xylene	
PNEC	0.327 mg/l (freshwater environment) 12.46 mg/kg (freshwater sediment environment) 2.31 mg/kg (soil) 6.58 mg/l (sewage treatment plants)
4083-64-1 tosyl isocyanate	
PNEC	0.03 mg/l (freshwater environment) 0.003 mg/l (marine environment) 0.0172 mg/kg (marine environment) 0.3 mg/l (intermittent releases) 0.172 mg/kg (freshwater sediment environment) 0.0168 mg/kg (soil) 0.4 mg/l (sewage treatment plants)
Ingredients with biological limit values:	
1330-20-7 xylene	
BMGV (Great Britain)	650 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: methyl hippuric acid

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

8.2 Exposure controls**Personal protective equipment:****General protective and hygienic measures:**

Ensure good ventilation/exhaustion at the workplace.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Keep ignition sources away - Do not smoke.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.06.2015

V- 1

Revision: 29.06.2015

Trade name: 5:1 FILLER THN - HARDENER FAST

(Contd. of page 6)

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Do not eat or drink while working.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter A/P2

Use suitable respiratory protective device in case of insufficient ventilation.

Protection of hands:



Protective gloves

Check the permeability prior to each renewed use of the glove.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation (EN 374).

Material of gloves

Butyl rubber, BR

Fluorocarbon rubber (Viton)

Nitrile rubber, NBR

PVA gloves

Recommended thickness of the material: $\geq 0,7$ mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

Value for the permeation: Level 6 ≥ 480 min.

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

Eye protection:



Tightly sealed goggles

Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Not determined.

pH-value: Not applicable.

Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

Flash point: 21 °C

Flammability (solid, gaseous): Not applicable.

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.06.2015

V- 1

Revision: 29.06.2015

Trade name: 5:1 FILLER THN - HARDENER FAST

(Contd. of page 7)

Decomposition temperature:	Not determined.
Auto-ignition temperature:	Not determined.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Explosion limits:	
Lower:	1.0 Vol %
Upper:	15.0 Vol %
Vapour pressure at 20 °C:	98 hPa
Density at 20 °C:	1 g/cm ³
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with water:	Reacts with water.
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity No decomposition if used according to specifications.

10.2 Chemical stability No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

Reacts with water.

Reacts with alkali, amines and strong acids.

Reacts with oxidising agents.

Fumes can combine with air to form an explosive mixture.

10.4 Conditions to avoid Protect from heat and direct sunlight.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products:

Carbon monoxide and carbon dioxide

Formation of toxic gases is possible during heating or in case of fire.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD/LC50 values relevant for classification:

123-86-4 n-butyl acetate

Oral	LD50	10760 mg/kg (rat)
Dermal	LD50	10760 mg/kg (rat)
		>14000 mg/kg (rabbit)
Inhalative	LC50/4 h	23.4 mg/l (rat)

28182-81-2 hexamethylene diisocyanate homopolymer

Oral	LD50	> 5000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)
Inhalative	ATE	1.5 mg/l (-) (dust/ mist)

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.06.2015

V- 1

Revision: 29.06.2015

Trade name: 5:1 FILLER THN - HARDENER FAST

(Contd. of page 8)

53317-61-6 aromatic polyisocyanate		
Oral	LD50	>5000 mg/kg (rat)
108-65-6 2-methoxy-1-methylethyl acetate		
Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rabbit)
Inhalative	LC50/6 h	4345 mg/l (rat)
141-78-6 ethyl acetate		
Oral	LD50	6100 mg/kg (rat)
Dermal	LD50	> 20000 mg/kg (rabbit)
Inhalative	LC50/6 h	58 mg/l (rat)
1330-20-7 xylene		
Oral	ATE	>2000 mg/kg (-)
Dermal	ATE	1466.67 mg/kg (-)
Inhalative	LC50/4 h	1.5 mg/l (ATE)
4083-64-1 tosyl isocyanate		
Oral	LD50	2330 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)
26471-62-5 toluene-diisocyanate		
Oral	LD50	5110 mg/kg (rat)
Dermal	LD50	>9400 mg/kg (rabbit)
Inhalative	LC50/4 h	0.107 mg/l (rat) (dust/ mist)
	LD50/1 h	0.47 mg/l (rat) (vapour)

Primary irritant effect:**Skin corrosion/irritation** Based on available data, the classification criteria are not met.**Serious eye damage/irritation**

Causes serious eye irritation.

Respiratory or skin sensitisation

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

May cause an allergic skin reaction.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Based on available data, the classification criteria are not met.**STOT-single exposure**

May cause respiratory irritation. May cause drowsiness or dizziness.

STOT-repeated exposure Based on available data, the classification criteria are not met.**Aspiration hazard** Based on available data, the classification criteria are not met.**SECTION 12: Ecological information****12.1 Toxicity**

Aquatic toxicity:	
123-86-4 n-butyl acetate	
EC50/48 h	44 mg/l (daphnia)
EC50/72 h	675 mg/l (algae)
LC50/96 h	18 mg/l (Pimephales promelas)
TT/16 h	115 mg/l (Pseudomonas putida)
28182-81-2 hexamethylene diisocyanate homopolymer	
EC50/3 h	3828 mg/l (microorganisms)

(Contd. on page 10)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.06.2015

V- 1

Revision: 29.06.2015

Trade name: 5:1 FILLER THN - HARDENER FAST

(Contd. of page 9)

EC50/48 h	>100 mg/l (<i>Daphnia magna</i>)
EC50/72 h	>1000 mg/l (<i>Scenedesmus subspicatus</i>)
LC50/96 h	>100 mg/l (fish)
53317-61-6 aromatic polyisocyanate	
EC50	>10000 mg/l (microorganisms)
108-65-6 2-methoxy-1-methylethyl acetate	
EC20/30 min	>1000 mg/l (microorganisms)
EC50	>100 mg/l (<i>Pseudokirchnerella subcapitata</i>) >100 mg/l (<i>Pimephales promelas</i>) >100 mg/l (<i>Daphnia magna</i>)
EC50/48 h	>500 mg/l (<i>Daphnia magna</i>)
EC50/72 h	>1000 mg/l (<i>Pseudokirchnerella subcapitata</i>)
LC50/96 h	>100 mg/l (fish)
141-78-6 ethyl acetate	
EC3/16 h	650 mg/l (<i>Pseudomonas putida</i>)
EC50/48 h	165 mg/l (<i>Daphnia cucullata</i>)
EC50/72 h	> 900 mg/l (<i>Scenedesmus subspicatus</i>)
LC50/96 h	230 mg/l (<i>Pimephales promelas</i>)
1330-20-7 xylene	
EC50/24 h	96 mg/l (microorganisms)
EC50/48 h	>1-10 mg/l (<i>Daphnia magna</i>)
IC50/72 h	2.2 mg/l (algae)
LC50/96 h	2.6 mg/l (fish)
4083-64-1 tosyl isocyanate	
EC50/48 h	>100 mg/l (<i>Daphnia magna</i>)
EC50/72 h	30 mg/l (<i>Pseudokirchnerella subcapitata</i>)
LC50/48 h	>45 mg/l (fish)
26471-62-5 toluene-diisocyanate	
EC50/3 h	>100 mg/l (microorganisms)
EC50/48 h	12.5 mg/l (<i>Daphnia magna</i>)
ErC50/96 h	4300 mg/l (<i>Chlorella vulgaris</i>)
LC50/96 h	133 mg/l (fish)
12.2 Persistence and degradability	
123-86-4 n-butyl acetate	
Biodegradation	83 % (readily biodegradable) (OECD 301 D, 28 d, aerobic)
28182-81-2 hexamethylene diisocyanate homopolymer	
Biodegradation	1 % (not readily biodegradable) (OECD 301 D, 28 d, aerobic)
53317-61-6 aromatic polyisocyanate	
Biodegradation	(not readily biodegradable)
108-65-6 2-methoxy-1-methylethyl acetate	
Biodegradation	100 % (readily biodegradable) (OECD 302 B, 8 d, aerobic)
141-78-6 ethyl acetate	
Biodegradation	93.9 % (readily biodegradable) (OECD 301 B, aerobic)
1330-20-7 xylene	
Biodegradation	>60 % (readily biodegradable) (OECD 301 F, 28 d, aerobic)

(Contd. on page 11)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.06.2015

V- 1

Revision: 29.06.2015

Trade name: 5:1 FILLER THN - HARDENER FAST

(Contd. of page 10)

4083-64-1 tosyl isocyanate	
Biodegradation	86 % (readily biodegradable) (OECD 301 D, 28 d, aerobic)
26471-62-5 toluene-diisocyanate	
Biodegradation	0 % (not readily biodegradable) (OECD 302 C, 28 d, aerobic)
12.3 Bioaccumulative potential	
123-86-4 n-butyl acetate	
BCF	15.3 (-)
log Pow	2.3 (-)
28182-81-2 hexamethylene diisocyanate homopolymer	
BCF	3.2 (-)
log Pow	9.81 (-)
108-65-6 2-methoxy-1-methylethyl acetate	
log Pow	0.56 (-)
141-78-6 ethyl acetate	
BCF	30 (-)
log Pow	0.66 (-)
1330-20-7 xylene	
BCF	25.9 (-)
log Pow	3.15 (-)
12.4 Mobility in soil	
123-86-4 n-butyl acetate	
log Koc	1.27 (-)
28182-81-2 hexamethylene diisocyanate homopolymer	
log Koc	7.8 (-)
108-65-6 2-methoxy-1-methylethyl acetate	
Koc	1.7 (-)

Additional ecological information:**General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment**PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects** No further relevant information available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation**

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

European waste catalogue

08 01 11* | waste paint and varnish containing organic solvents or other dangerous substances

Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information****14.1 UN-Number**
ADR, IMDG, IATA

UN1263

(Contd. on page 12)

Safety data sheet
according to 1907/2006/EC, Article 31


Printing date 29.06.2015

V- 1

Revision: 29.06.2015

Trade name: 5:1 FILLER THN - HARDENER FAST

(Contd. of page 11)

14.2 UN proper shipping name ADR IMDG, IATA	1263 PAINT RELATED MATERIAL PAINT RELATED MATERIAL
14.3 Transport hazard class(es) ADR, IMDG, IATA	
	
Class Label	3 3
14.4 Packing group ADR, IMDG, IATA	II
14.5 Environmental hazards: Marine pollutant (IMDG):	No
14.6 Special precautions for user Danger code (Kemler): EMS Number:	Warning: Flammable liquids. 33 F-E,S-E
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
Transport/Additional information:	
ADR Limited quantities (LQ) Transport category Tunnel restriction code	5L 2 D/E
IMDG Limited quantities (LQ)	1L
UN "Model Regulation":	UN1263, PAINT RELATED MATERIAL, 3, II

SECTION 15: Regulatory information

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

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.

National regulations:

Information about limitation of use:

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

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.

(Contd. on page 13)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.06.2015

V- 1

Revision: 29.06.2015

Trade name: 5:1 FILLER THN - HARDENER FAST

(Contd. of page 12)

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids, Hazard Category 2

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

Acute Tox. 1: Acute toxicity, Hazard Category 1

Acute Tox. 4: Acute toxicity, Hazard Category 4

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

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

Resp. Sens. 1: Sensitisation - Respiratory. Hazard category 1

Skin Sens. 1: Sensitisation - Skin. Hazard Category 1

Carc. 2: Carcinogenicity. Hazard Category 2

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

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

Sources European Chemicals Agency, <http://echa.europa.eu/>