

Safety Data Sheet according to Regulation (EC) 'No. 2015/830



**Construction
Products Group**
Europe



SECTION 1: Identification of the Substance/Mixture and the Company/Undertaking

1.1 Product Identifier	FLOWSEAL PU ANTI-STAIN HARDENER	Revision Date:	26/05/2022
Product Name:	Flowseal PU Anti-Stain Hardener	Supersedes Date:	09/03/2021

UFI Code: MA00-C0F3-200W-QGFP

1.2 Relevant identified uses of the substance or mixture and uses advised against	Coatings and paints, thinners, paint removers. Manual activities involving hand contact. Widespread use leading to inclusion into/onto article (indoor). For use by appropriately trained applicators. Roller application or brushing. Low energy spreading of coatings. Advised against: Home DIY applications, because of the health hazards and training required. Hardener for 2 components coatings - Industrial use.
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1.3 Details of the supplier of the safety data sheet

Manufacturer: Tremco CPG Poland Sp. z o. o.
Ul. Marywilska 34
03-228 Warszawa
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Giftinformasjonen: +47 22 59 13 00

SECTION 2: Hazard Identification

2.1 Classification of the substance or mixture

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

HAZARD STATEMENTS

Skin drying or cracking	EUH066
Other EU extensions	EUH204
Skin Sensitizer, category 1	H317
Eye Irritation, category 2	H319
Acute Toxicity, Inhalation, category 4	H332
STOT, single exposure, category 3, RTI	H335
Hazardous to the aquatic environment, Chronic, category 3	H412

2.2 Label elements**Symbol(s) of Product****Signal Word**

Warning

Named Chemicals on Label

Hexamethylene diisocyanate, oligomers, cyclohexane,5-isocyanato-1-(is, Hydrophilic aliphatic polyisocyanate

HAZARD STATEMENTS

Skin drying or cracking	EUH066	Repeated exposure may cause skin dryness or cracking.
Other EU extensions	EUH204	Contains isocyanates. May produce an allergic reaction.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
Hazardous to the aquatic environment, Chronic, category 3	H412	Harmful to aquatic life with long lasting effects.

PRECAUTION PHRASES

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P501	Dispose of contents/container to waste treatment/disposal facility in accordance with local, state, and federal regulations.

2.3 Other hazards

No Information

Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

SECTION 3: Composition/Information On Ingredients**3.2 Mixtures****Hazardous ingredients**

<u>Name According to EEC</u>	<u>EINEC No.</u>	<u>CAS-No.</u>	<u>%</u>	<u>Classifications</u>
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Hydrophilic aliphatic polyisocyanate	666723-27-9	50 - <75	H317-332-335-412	Acute Tox. 4 Inhalation, Aquatic Chronic 3, Skin Sens. 1, STOT SE 3 RTI	
Hexamethylene diisocyanate, oligomers	500-060-2	28182-81-2	2.5 - <10	H317-332-335	Acute Tox. 4 Inhalation, Skin Sens. 1, STOT SE 3 RTI
dipropylene glycol dimethyl ether	601-045-4	111109-77-4	2.5 - <10	H319	Eye Irrit. 2
n-Butyl acetate	204-658-1	123-86-4	2.5 - <10	H225-336	Flam. Liq. 2, Skin Cracking, STOT SE 3 NE
cyclohexane,5-isocyanato-1-(is	500-125-5	53880-05-0	2.5 - <10	H317-332-335	Acute Tox. 4 Inhalation, Skin Sens. 1, STOT SE 3 RTI
polyoxyethylene tridecyl ether phosphate	9046-01-9	1.0 - <2.5	H315-318-411	Aquatic Chronic 2, Eye Dam. 1, Skin Irrit. 2	

<u>CAS-No.</u>	<u>M-Factors</u>	<u>REACH Reg No.</u>
666723-27-9		
28182-81-2		01-2119488177-26
111109-77-4		
123-86-4		01-2119485493-29
53880-05-0		
9046-01-9		

Additional Information: The text for CLP Hazard Statements shown above (if any) is given in Section 16.

SECTION 4: First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: When symptoms persist or in all cases of doubt seek medical advice. Show this safety data sheet to the doctor in attendance. Remove contaminated clothing and shoes.

AFTER INHALATION: Move to fresh air. Consult a physician after significant exposure. Keep respiratory tract clear. Remove person to fresh air. If signs/symptoms continue, get medical attention.

AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. Do NOT use solvents or thinners.

AFTER EYE CONTACT: Keep eye wide open while rinsing. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. If eye irritation persists, consult a specialist.

AFTER INGESTION: Gently wipe or rinse the inside of the mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

No Information

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Fire-fighting Measures**5.1 Extinguishing Media:**

Carbon Dioxide, Dry Chemical, Foam, Water Fog

FOR SAFETY REASONS NOT TO BE USED: Alcohol, Alcohol based solutions, any other media not listed above.

5.2 Special hazards arising from the substance or mixture

No Information

5.3 Advice for firefighters

Keep containers and surroundings cool with water spray. Fire will produce dense black smoke containing hazardous combustion products (see section 10). In the event of fire, wear self-contained breathing apparatus. High volume water jet. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

SECTION 6: Accidental Release Measures**6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains. May cause long-term adverse effects in the aquatic environment.

6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Refer to protective measures listed in sections 7 and 8.

6.4 Reference to other sections

FURTHER INSTRUCTIONS: Please refer to EU disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

SECTION 7: Handling and Storage**7.1 Precautions for safe handling**

Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Use only in well-ventilated areas. Smoking, eating and drinking should be prohibited in the application area. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Handle in accordance with good industrial hygiene and safety practice. Keep working clothes separately. Wash hands before breaks and at the end of workday. Keep away from food, drink and animal feeding stuffs. When using, do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat.

STORAGE CONDITIONS: Do not freeze. Store in original container. Store at room temperature in the original container. Keep locked up or in an area accessible only to qualified or authorised persons. Keep container closed when not in use. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

7.3 Specific end use(s)

Component of a resin flooring product. The mixing and application to be in accordance with the technical data sheets.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (UK WELS)

<u>Name</u>	<u>CAS-No.</u>	<u>LTEL ppm</u>	<u>STEL ppm</u>	<u>STEL mg/m3</u>	<u>LTEL mg/m3</u>
Hydrophilic aliphatic polyisocyanate	666723-27-9				
Hexamethylene diisocyanate, oligomers	28182-81-2				0.02
dipropylene glycol dimethyl ether	111109-77-4				
n-Butyl acetate	123-86-4	150	200	966	724
cyclohexane,5-isocyanato-1-(is	53880-05-0				0.02
polyoxyethylene tridecyl ether phosphate	9046-01-9				

<u>Name</u>	<u>CAS-No.</u>	<u>OEL Note</u>
Hydrophilic aliphatic polyisocyanate	666723-27-9	
Hexamethylene diisocyanate, oligomers	28182-81-2	
dipropylene glycol dimethyl ether	111109-77-4	
n-Butyl acetate	123-86-4	
cyclohexane,5-isocyanato-1-(is	53880-05-0	
polyoxyethylene tridecyl ether phosphate	9046-01-9	

FURTHER ADVICE: Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified under the EU CLP Regulation.

8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: In case of insufficient ventilation wear suitable respiratory equipment, filter A. Respirator with a vapor filter.

EYE PROTECTION: Eye wash bottle with pure water. Safety glasses with side-shields conforming to EN 166. Safety glasses. If splashes are likely to occur, wear: tightly fitting safety goggles.

HAND PROTECTION: Use chemical resistant gloves (EN 374): Nitrile rubber; thickness $\geq 0,5$ mm; breakthrough time ≥ 480 min. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Impervious gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Long sleeved clothing. Remove and wash contaminated clothing before re-use. Remove contaminated clothing and protective equipment before entering eating areas.

OTHER PROTECTIVE EQUIPMENT: No Information

ENGINEERING CONTROLS: At temperatures below 40°C, provide a good standard of general ventilation (not less than 5 air changes per hour). At temperatures over 40°C - and always if sprayed - exhaust ventilation is required. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

Chemical Name:**EC No.:****CAS-No.:****DNELs - Derived no effect level**

Route of Exposure	Workers				Consumers			
	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required							
Inhalation								
Dermal								

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	
Fresh water sediments	
Marine water	
Marine sediments	
Food chain	
Microorganisms in sewage treatment	
soil (agricultural)	
Air	

SECTION 9: Physical and Chemical Properties**9.1 Information on basic physical and chemical properties**

Appearance:	Colourless
Physical State	Liquid
Odor	ester Like
Odor threshold	Not determined
pH	Not determined
Melting point / freezing point (°C)	Not determined
Boiling point/range (°C)	126 - N.D.
Flash Point, (°C)	62
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Upper/lower flammability or explosive limits	999 - -999
Vapour Pressure	Not determined
Vapour density	Not determined
Relative density	ca. 1.09
Solubility in / Miscibility with water	Miscible
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature (°C)	ca. 460 °C DIN 51794
Decomposition temperature (°C)	Not determined
Viscosity	70-75 s (DIN 53211/4)
Explosive properties	Not determined
Oxidising properties	Not determined

9.2 Other information

VOC Content g/l: Not determined

Specific Gravity (g/cm3) 0.120

SECTION 10: Stability and Reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed. Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4 Conditions to avoid

Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat.

10.5 Incompatible materials

Strong oxidizing agents. Acids and bases. Amines. Reducing agents.

10.6 Hazardous decomposition products

In case of fire **hazardous decomposition products** may be produced such as: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Thermal decomposition can lead to release of irritating gases and vapours. Alcohols. Exothermic reaction.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects**Acute Toxicity:**

Oral LD50: No Information

Inhalation LC50: No Information

Irritation: No information available.

Corrosivity: Causes serious eye damage.

Sensitization: May cause an allergic skin reaction.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

STOT-single exposure: May cause respiratory irritation.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Name According to EEC</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>	<u>Gas LC50</u>	<u>Dust/Mist LC50</u>
666723-27-9	Hydrophilic aliphatic polyisocyanate	>5000 mg/kg (rat)			0.000	0.000

28182-81-2	Hexamethylene diisocyanate, oligomers	> 5665 mg/kg (rat)	0.000	0.000
123-86-4	n-Butyl acetate	10760 mg/kg (rat)	23.4 mg/l, 4hr (rat)	0.000

Additional Information:

In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates. Isocyanates may cause acute irritation and/or sensitisation of the respiratory system leading to tightness of the chest, wheeziness and an asthmatic condition.

SECTION 12: Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia):	No information
IC50 72hr (Algae):	No information
LC50 96hr (fish):	No information

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

12.4 Mobility in soil: No information

12.5 Results of PBT and vPvB assessment: The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

12.6 Other adverse effects: No information

<u>CAS-No.</u>	<u>Name According to EEC</u>	<u>EC50 48hr</u>	<u>IC50 72hr</u>	<u>LC50 96hr</u>
666723-27-9	Hydrophilic aliphatic polyisocyanate	No information	No information	No information
28182-81-2	Hexamethylene diisocyanate, oligomers	No information	No information	> 100 mg/L (danio rerio)
111109-77-4	dipropylene glycol dimethyl ether	No information	No information	
123-86-4	n-Butyl acetate	No information	No information	
53880-05-0	cyclohexane,5-isocyanato-1-(is	No information	No information	
9046-01-9	polyoxyethylene tridecyl ether phosphate	No information	No information	

SECTION 13: Disposal Considerations

13.1 WASTE TREATMENT METHODS: Dispose of as hazardous waste in compliance with local and national regulations. If recycling is not practicable, dispose of in compliance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal. The product should not be allowed to enter drains, water courses or the soil.

European Waste Code: 080501*
Packaging Waste Code: 150110

SECTION 14: Transport Information

14.1	UN number	Not applicable
14.2	UN proper shipping name	Not regulated for transport according to ADR/RID, IMDG, and IATA regulations.
	Technical name	Not applicable
14.3	Transport hazard class(es)	Not applicable
	Subsidiary shipping hazard	Not applicable
14.4	Packing group	Not applicable
14.5	Environmental hazards	Not applicable
14.6	Special precautions for user	Not applicable
	EmS-No.:	Not applicable
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Not applicable

SECTION 15: Regulatory Information**15.1 Safety, health and environmental regulations/legislation for the substance or mixture:****National Regulations:**

Denmark Product Registration Number:	Not available
Danish MAL Code:	3-5 (1993)
Danish MAL Code - Mixture:	Not available
Sweden Product Registration Number:	Not available
Norway Product Registration Number:	Not available
Germany WGK Class:	2
Directive 2004/42/CE :	Not available
Covered by Directive 2012/18/EC (Seveso III):	Not applicable
Restrictions to product or to substances according to Annex XVII, Regulation (CE) 1907/2006:	Not applicable

Annex XIV - Authorisation List:

<u>CAS-No.</u>	<u>Name According to EEC</u>
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Not Applicable

SVHC - Substances of very high concern (Candidate List):

<u>CAS-No.</u>	<u>Name According to EEC</u>
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Not Applicable

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other Information

Text for CLP Hazard Statements shown in Section 3 describing each ingredient:

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Reasons for revision

Composition Information Changed

Substance and/or Product Properties Changed in Section(s):

- 02 - Hazard Identification
- 08 - Exposure Controls/Personal Protection
- 09 - Physical and Chemical Properties
- 11 - Toxicological Information
- 14 - Transportation Information
- 15 - Regulatory Information

Substance Regulatory CAS Number Changed

Revision Statement(s) Changed

This Safety Data Sheet (SDS) has been revised to meet the new EU CLP requirements. There have been both formatting and content changes based on the CLP classification (if applicable), please review each section of the SDS for specific changes.

List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark;
 European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830;
 European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP);
 EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes".

Acronym & Abbreviation Key:

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union
US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit
OEL	Occupational exposure limit
ppm	Parts per million
mg/m ³	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram
N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%

EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration
PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road
RID	International Transport of Dangerous Goods by Rail
UN	United Nations
IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
IBC	International Bulk Container
RTI	Respiratory Tract Irritation
NE	Narcotic Effects

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.