









# SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



## StrataShield Flex / ProFlex PU Resin

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xylene (Mixture of isomers)	1330-20-7	European Union [1]	<b>Eight hours</b>	50 (skin)	221 (skin)
			<b>Short term</b>	100 (skin)	442 (skin)
		United Kingdom [2]	<b>Eight hours</b>	50	220
			<b>Short term</b>	100	441
		United States [3] (Cal/OSHA)	<b>Eight hours</b>	100	
			<b>Short term</b>	150 (Ceiling) 300	
		United States [4] (NIOSH)	<b>Eight hours</b>	100	
			<b>Short term</b>	150	
		United States [5] (OSHA)	<b>Eight hours</b>	100	435
			<b>Short term</b>		
ethylbenzene	100-41-4	European Union [1]	<b>Eight hours</b>	100 (skin)	442 (skin)
			<b>Short term</b>	200 (skin)	884 (skin)
		United Kingdom [2]	<b>Eight hours</b>	100	441
			<b>Short term</b>	125	552
		United States [3] (Cal/OSHA)	<b>Eight hours</b>	5	
			<b>Short term</b>	30	
		United States [4] (NIOSH)	<b>Eight hours</b>	100	
			<b>Short term</b>	125	
		United States [5] (OSHA)	<b>Eight hours</b>	100	435
			<b>Short term</b>		

[1] According both Binding Occupational Exposure Limits (BOELVs) and Indicative Occupational Exposure Limits (IOELVs) adopted by Scientific Committee for Occupational Exposure Limits to Chemical Agents (SCOEL).

[2] According Limit Value (IOELV) list in 2nd Indicative Occupational Exposure adopted by Health and Safety Executive.

[3] California Division of Occupational Safety and Health (Cal/OSHA) Permissible Exposure Limits (PELs).

[4] According Compendium of Policy Documents and Statements adopted by National Institute for Occupational Safety and Health (NIOSH).

[5] According Occupational Health and Safety Standards and US Code of Federal Regulations adopted by US Occupational Safety and Health Administration (OSHA).

The product does NOT contain substances with Biological Limit Values.

Concentration levels DNEL/DMEL:

Name	DNEL/DMEL	Type	Value
2-methoxy-1-methylethyl acetate CAS No: 108-65-6 EC No: 203-603-9	DNEL (Workers)	Inhalation, Long-term, Systemic effects	275 (mg/m <sup>3</sup> )
	DNEL (General population)	Inhalation, Long-term, Systemic effects	33 (mg/m <sup>3</sup> )
	DNEL (Workers)	Dermal, Long-term, Systemic effects	153,5 (mg/kg bw/day)
	DNEL (General population)	Dermal, Long-term, Systemic effects	54,8 (mg/kg bw/day)
	DNEL (General population)	Oral, Long-term, Systemic effects	1,67 (mg/kg bw/day)
xylene (Mixture of isomers) CAS No: 1330-20-7 EC No: 215-535-7	DNEL (Workers)	Inhalation, Long-term, Systemic effects	77 (mg/m <sup>3</sup> )
ethylbenzene CAS No: 100-41-4 EC No: 202-849-4	DNEL (Workers)	Inhalation, Long-term, Systemic effects	77 (mg/m <sup>3</sup> )

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.

DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

Concentration levels PNEC:

Name	Details	Value
2-methoxy-1-methylethyl acetate CAS No: 108-65-6 EC No: 203-603-9	aqua (freshwater)	0,635 (mg/L)
	aqua (marine water)	0,0635 (mg/L)
	aqua (intermittent releases)	6,35 (mg/L)
	STP	100 (mg/L)

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	sediment (freshwater)	3,29 (mg/kg sediment dw)
	sediment (marine water)	0,329 (mg/kg sediment dw)
	soil	0,29 (mg/kg soil dw)

PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are not expected in the environmental compartment.

### 8.2 Exposure controls.

#### Measures of a technical nature:

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

<b>Concentration:</b>	<b>100 %</b>		
<b>Uses:</b>	<b>Coating</b>		
<b>Breathing protection:</b>			
PPE:	Filter mask for protection against gases and particles.		
Characteristics:	«CE» marking, category III. The mask must have a wide field of vision and an anatomically designed form in order to be sealed and watertight.		
CEN standards:	EN 136, EN 140, EN 405		
Maintenance:	Should not be stored in places exposed to high temperatures and damp environments before use. Special attention should be paid to the state of the inhalation and exhalation valves in the face adaptor.		
Observations:	Read carefully the manufacturer's instructions regarding the equipment's use and maintenance. Attach the necessary filters to the equipment according to the specific nature of the risk (Particles and aerosols: P1-P2-P3, Gases and vapours: A-B-E-K-AX), changing them as advised by the manufacturer.		
Filter Type needed:	A2		
<b>Hand protection:</b>			
PPE:	Protective gloves against chemicals.		
Characteristics:	«CE» marking, category III.		
CEN standards:	EN 374-1, En 374-2, EN 374-3, EN 420		
Maintenance:	Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.		
Observations:	Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.		
Material:	PVC (polyvinyl chloride)	Breakthrough time (min.):	> 480
		Material thickness (mm):	0,35
<b>Eye protection:</b>			
PPE:	Protective goggles with built-in frame.		
Characteristics:	«CE» marking, category II. Eye protector with built-in frame for protection against dust, smoke, fog and vapour.		
CEN standards:	EN 165, EN 166, EN 167, EN 168		
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions.		
Observations:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.		
<b>Skin protection:</b>			
PPE:	Anti-static protective clothing.		
Characteristics:	«CE» marking, category II. Protective clothing should not be too tight or loose in order not to obstruct the user's movements.		
CEN standards:	EN 340, EN 1149-1, EN 1149-2, EN 1149-3, EN 1149-5		
Maintenance:	In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.		
Observations:	The protective clothing should offer a level of comfort in line with the level of protection provided in terms of the hazard against which it protects, bearing in mind environmental conditions, the user's level of activity and the expected time of use.		
PPE:	Anti-static safety footwear.		
Characteristics:	«CE» marking, category II.		
CEN standards:	EN ISO 13287, EN ISO 20344, EN ISO 20346		
Maintenance:	The footwear should be checked regularly		

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Observations:	The level of comfort during use and acceptability are factors that are assessed very differently depending on the user. Therefore, it is advisable to try on different footwear models and, if possible, different widths.
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### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

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

Appearance: Liquid with characteristic odour and colour

Colour: Depending on pigmentation

Odour: Solvent

Odour threshold: N.A./N.A.

pH: n.a.

Melting point: n.d. °C

Boiling Point: 238 °C

Flash point: 45 °C

Evaporation rate: nd

Inflammability (solid, gas): flammable

Lower Explosive Limit: n.d.

Upper Explosive Limit: N.A./N.A.

Vapour pressure: nd

Vapour density: nd

Relative density: 1,3

Solubility: Organic solvents

Liposolubility: nd

Hydrosolubility: not soluble

Partition coefficient (n-octanol/water): nd

Auto-ignition temperature: N.A./N.A.

Decomposition temperature: N.A./N.A.

Viscosity: 5000-10000 cps 25°C

Explosive properties: non explosive

Oxidizing properties: non oxidant

N.A./N.A. = Not Available/Not Applicable due to the nature of the product

#### 9.2 Other information.

Dropping point: n.d.

Blink: n.d.

Kinematic viscosity: nd

N.A./N.A. = Not Available/Not Applicable due to the nature of the product

### SECTION 10: STABILITY AND REACTIVITY.

#### 10.1 Reactivity.

If the storage conditions are satisfied, does not produce dangerous reactions.

#### 10.2 Chemical stability.

Stable under the recommended handling and storage conditions (see section 7).

#### 10.3 Possibility of hazardous reactions.

Flammable liquid and vapour.

#### 10.4 Conditions to avoid.

Avoid the following conditions:

- High temperature.
- Static discharge.
- Contact with incompatible materials.
- Avoid temperatures near or above the flash point. Do not heat closed containers. Avoid direct sunlight and heat, as these may cause a risk of fire.

#### 10.5 Incompatible materials.

Avoid the following materials:

- Explosives materials.
- Toxic materials.

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- Oxidizing materials.

### 10.6 Hazardous decomposition products.

In case of fire, dangerous decomposition products can be generated, such as carbon monoxide and dioxide and nitrogen fumes and oxides.

## SECTION 11: TOXICOLOGICAL INFORMATION.

### 11.1 Information on toxicological effects.

Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.

Exposure to concentrations of solvent fumes above the work exposure limit can have negative effects (for example, irritation of the mucous membranes and respiratory system, adverse effects on the kidneys, liver, and the central nervous system). Among the symptoms are headaches, vertigo, fatigue, muscular weakness, drowsiness, and in extreme cases, unconsciousness.

Based on the properties of isocyanates and taking into account existing technical data on similar products, it appears that this product may cause irritation and / or acute awareness of the respiratory system, leading to an asthmatic condition, a wheezing and chest pressure. Therefore, sensitized individuals may show asthmatic symptoms when exposed to atmospheres containing concentrations below the level of exposure. Repeated exposure can lead to chronic respiratory diseases.

**Toxicological information about the substances present in the composition.**

Name	Acute toxicity			
	Type	Test	Kind	Value
xylene (Mixture of isomers)	Oral	LD50	Rata/Rat	4300 mg/kg bw [1]
				[1] AMA Archives of Industrial Health. Vol. 14, Pg. 387, 1956
CAS No: 1330-20-7    EC No: 215-535-7	Dermal	LD50	Rabbit/Cone jo	> 1700 mg/kg bw [1]
				[1] Raw Material Data Handbook, Vol.1: Organic Solvents, 1974. Vol. 1, Pg. 123, 1974
	Inhalation	LC50	Rat/Rata	21,7 mg/l/4 h [1]
				[1] Raw Material Data Handbook, Vol.1: Organic Solvents, 1974. Vol. 1, Pg. 123, 1974

a) acute toxicity;

Not conclusive data for classification.

Acute Toxicity Estimate (ATE):

Mixtures:

ATE (Dermal) = 12.436 mg/kg

b) skin corrosion/irritation;

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

c) serious eye damage/irritation;

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

d) respiratory or skin sensitisation;

Product classified:

Respiratory sensitiser, Category 1: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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

e) germ cell mutagenicity;

Not conclusive data for classification.

f) carcinogenicity;

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

g) reproductive toxicity;

Not conclusive data for classification.

h) STOT-single exposure;

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

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i) STOT-repeated exposure;  
Based on available data, the classification criteria are not met.

j) aspiration hazard;  
Based on available data, the classification criteria are not met.

### SECTION 12: ECOLOGICAL INFORMATION.

#### 12.1 Toxicity.

Name	Ecotoxicity			
	Type	Test	Kind	Value
xylene (Mixture of isomers)  CAS No: 1330-20-7    EC No: 215-535-7	Fish	LC50	Fish/Pez	15,7 mg/l (96 h) [1]  [1] Bailey, H.C., D.H.W. Liu, and H.A. Javitz 1985. Time/Toxicity Relationships in Short-Term Static, Dynamic, and Plug-Flow Bioassays. In: R.C.Bahner and D.J.Hansen (Eds.), Aquatic Toxicology and Hazard Assessment, 8th Symposium, ASTM STP 891, Philadelphia, PA :193-212
	Aquatic invertebrates	LC50	Crustacean	8,5 mg/l (48 h) [1]  [1] Tatem, H.E., B.A. Cox, and J.W. Anderson 1978. The Toxicity of Oils and Petroleum Hydrocarbons to Estuarine Crustaceans. Estuar.Coast.Mar.Sci. 6(4):365-373. Tatem, H.E. 1975. The Toxicity and Physiological Effects of Oil and Petroleum Hydrocarbons on Estuarine Grass Shrimp Palaemonetes pugio (Holthuis). Ph.D.Thesis, Texas A&M University, College Station, TX :133 p
	Aquatic plants			

#### 12.2 Persistence and degradability.

No information is available regarding the biodegradability of the substances present.  
No information is available on the degradability of the substances present.No information is available about persistence and degradability of the product.

#### 12.3 Bioaccumulative potential.

No information is available regarding the bioaccumulation of the substances present.

#### 12.4 Mobility in soil.

No information is available about the mobility in soil.  
The product must not be allowed to go into sewers or waterways.  
Prevent penetration into the ground.

#### 12.5 Results of PBT and vPvB assessment.

No information is available about the results of PBT and vPvB assessment of the product.

#### 12.6 Other adverse effects.

No information is available about other adverse effects for the environment.

### SECTION 13: DISPOSAL CONSIDERATIONS.

#### 13.1 Waste treatment methods.

Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.  
Follow the provisions of Directive 2008/98/EC regarding waste management.

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### SECTION 14: TRANSPORT INFORMATION.

Transport following ADR rules for road transport, RID rules for railway, ADN for inner waterways, IMDG for sea, and ICAO/IATA for air transport.

**Land:** Transport by road: ADR, Transport by rail: RID.

Transport documentation: Consignment note and written instructions

**Sea:** Transport by ship: IMDG.

Transport documentation: Bill of lading

**Air:** Transport by plane: ICAO/IATA.

Transport document: Airway bill.

#### 14.1 UN number.

UN No: UN1866

#### 14.2 UN proper shipping name.

Description:

ADR: UN 1866, RESIN SOLUTION, 3, PG III, (E)

IMDG: UN 1866, RESIN SOLUTION, 3, PG III (45°C)

ICAO/IATA: UN 1866, RESIN SOLUTION, 3, PG III

#### 14.3 Transport hazard class(es).

Class(es): 3

#### 14.4 Packing group.

Packing group: III

#### 14.5 Environmental hazards.

Marine pollutant: No

#### 14.6 Special precautions for user.

F-E,S-ELabels: 3



Hazard number: Not applicable.

ADR LQ: 5 L

IMDG LQ: 5 L

ICAO LQ: 10 L

Provisions concerning carriage in bulk ADR: Not authorized carriage in bulk in accordance with ADR.

Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills):

Proceed in accordance with point 6.

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

The product is not transported in bulk.

### SECTION 15: REGULATORY INFORMATION.

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

The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.

Volatile organic compound (VOC)

Product Subcategory (Directive 2004/42/EC): i - One-pack performance coatings, solvent-borne

Phase I\* (from 01/01/2007): 600 g/l

Phase II\* (from 01/01/2010): 500 g/l

(\*) g/l ready to use

VOC content (p/p): 15 %

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VOC content: 184 g/l

The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

Product classification according to Annex I of Directive 2012/18/EU (SEVESO III): P5b

The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.

The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

### 15.2 Chemical safety assessment.

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

## SECTION 16: OTHER INFORMATION.

Complete text of the H phrases that appear in section 3:

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.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.(órganos de audición)

Classification codes:

Acute Tox. 4 : Acute toxicity (Dermal), Category 4  
Acute Tox. 4 : Acute toxicity (Inhalation), Category 4  
Asp. Tox. 1 : Aspiration toxicity, Category 1  
Carc. 2 : Carcinogen, Category 2  
Eye Irrit. 2 : Eye irritation, Category 2  
Flam. Liq. 2 : Flammable liquid, Category 2  
Flam. Liq. 3 : Flammable liquid, Category 3  
Resp. Sens. 1 : Respiratory sensitiser, Category 1  
Skin Irrit. 2 : Skin irritant, Category 2  
Skin Sens. 1 : Skin sensitiser, Category 1  
Skin Sens. 1B : Skin sensitiser, Category 1B  
STOT RE 2 : Specific target organ toxicity following a repeated exposure, Category 2  
STOT SE 3 : Specific target organ toxicity following a single exposure, Category 3

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
CEN: European Committee for Standardization.  
DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.  
DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.  
EC50: Half maximal effective concentration.

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PPE: Personal protection equipment.  
IATA: International Air Transport Association.  
ICAO: International Civil Aviation Organization.  
IMDG: International Maritime Code for Dangerous Goods.  
LC50: Lethal concentration, 50%.  
LD50: Lethal dose, 50%.  
PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are not expected in the environmental compartment.  
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.

Key literature references and sources for data:

<http://eur-lex.europa.eu/homepage.html>

<http://echa.europa.eu/>

Regulation (EU) 2015/830.

Regulation (EC) No 1907/2006.

Regulation (EU) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.