



EC safety data sheet

Trade name: Bright Shield Protective Coating PC101

Product no.: PC101

Current version : 4.0.1, issued: 16.06.2014

Replaced version: 4.0.0, issued: 15.05.2014

Region: GB

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

1.1 Product identifier

Trade name

Bright Shield Protective Coating PC101

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

Relevant identified uses of the substance or mixture

Industrial use

Coatings

1.3 Details of the supplier of the safety data sheet

Address

Trinity Shields LLC
5729 Lebanon Road
Frisco, TX
USA

75034

Telephone no. +1 347 234 5399

Fax no. +1 212 905 4367

Advice on Safety Data Sheet

sdb_info@umco.de

Identification of the supplier

Address

EuroGlue Partner UG
Meisenrain 6
79618 Rheinfelden
Deutschland

Telephone no. +49 7623 90 90 23

Fax no. +49 7623 90 90 57

Email Euroglurpartner@aol.com

1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP)

Flam. Liq. 2; H225

Repr. 2; H361d

Skin Irrit. 2; H315

STOT RE 2; H373i

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

F; R11

Repr.Cat.3; R63

Xi; R38

Xn; R48/20

Xn; R20/21



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2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Hazard pictograms



GHS02



GHS07



GHS08

Signal word

Danger

Hazardous component(s) to be indicated on label:

toluene

Hazard statements

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H361d	Suspected of damaging the unborn child.
H373i	May cause damage to organs through prolonged or repeated exposure if inhaled.

Precautionary statements

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P281	Use personal protective equipment as required.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P362	Take off contaminated clothing.

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Chemical characterization

Mixture (preparation)



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Hazardous ingredients

No	Substance name	Classification	Classification (EC)	Additional information	
	CAS / EC / Index / REACH no	67/548/EEC	1272/2008 (CLP)	Concentration	%
1	xylene				
	1330-20-7 215-535-7 601-022-00-9 -	R10 Xn; R20/21 Xi; R38	Acute Tox. 4*; H312 Acute Tox. 4*; H332 Flam. Liq. 3; H226 Skin Irrit. 2; H315	< 35.00	%-b.w.
2	toluene				
	108-88-3 203-625-9 601-021-00-3 -	F; R11 Xi; R38 Xn; R48/20 Repr.Cat.3; R63 Xn; R65 R67	Asp. Tox. 1; H304 Flam. Liq. 2; H225 Repr. 2; H361d*** Skin Irrit. 2; H315 STOT RE 2*; H373** STOT SE 3; H336	< 20.00	%-b.w.
3	ethylbenzene				
	100-41-4 202-849-4 601-023-00-4 -	F; R11 Xn; R20	Acute Tox. 4*; H332 Flam. Liq. 2; H225	< 10.00	%-b.w.

Full Text for all R-phrases , H-phrases and EUH-phrases: pls. see section 16

(* , ** , *** , ****) Detailed explanation pls. refer to CLP regulation No. 1272/2008, annex VI, 1.2

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
1	C	-	-	-

Full text for the notes: pls. see section 16 "Notes relating to the identification, classification and labelling of substances ((EC) No 1272/2008, Annex VI)".

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In all cases of doubt, or when sickness symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. Remove soiled or soaked clothing immediately.

After inhalation

Remove to fresh air, keep patient warm and at rest. Irregular breathing/no breathing: artificial respiration. If unconscious place in recovery position and seek medical advice.

After skin contact

Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners!

After eye contact

Remove contact lenses, irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.

After ingestion

Do not induce vomiting. Call a doctor immediately. Never give anything by mouth to an unconscious person. Keep at rest.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.



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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Alcohol resistant foam, CO₂, powders, water spray

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

5.3 Advice for firefighters

Cool endangered containers with water in case of fire. Appropriate breathing apparatus may be required. **DO NOT ALLOW RUN-OFF FROM FIRE FIGHTING TO ENTER DRAINS OR WATER COURSES; Wear protective clothing.**

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Exclude sources of ignition and ventilate the area. Do not inhale vapours. Refer to protective measures listed in sections 7 and 8.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not allow to enter drains. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Clean preferably with a detergent; avoid use of solvents.

6.4 Reference to other sections

No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentrations higher than the occupational exposure limits. The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Comply with the health and safety at work laws.

General protective and hygiene measures

Do not eat or drink during work - no smoking. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

Advice on protection against fire and explosion

Preparation may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear anti-static footwear and clothing. No sparking tools should be used. Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.



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7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight. Keep container dry in a cool, well-ventilated place.

Requirements for storage rooms and vessels

Electrical equipment should be protected to the appropriate standard. Floors should be of the conducting type. Keep container tightly closed. Never use pressure to empty: container is not a pressure vessel. No smoking. Prevent unauthorized access! Containers which are opened must be carefully closed and kept upright to prevent leakage.

Advice on storage assembly

Keep away from oxidizing agents, from strongly alkaline and strongly acid materials.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.	EC no.
1	xylene	1330-20-7	215-535-7
	2000/39/EWG		
	Xylene, mixed isomers, pure		
	STEL	442 mg/m ³	100 ml/m ³
	TWA	221 mg/m ³	50 ml/m ³
	Skin resorption / sensibilisation	Skin	
	List of approved workplace exposure limits (WELs) / EH40		
	Xylene, o-, m-, p- or mixed isomers		
	STEL	441 mg/m ³	100 ml/m ³
	TWA	220 mg/m ³	50 ml/m ³
	Skin resorption / sensibilisation	Sk	
2	toluene	108-88-3	203-625-9
	List of approved workplace exposure limits (WELs) / EH40		
	Toluene		
	STEL	100 ppm	384 mg/m ³
	TWA	50 ppm	191 mg/m ³
	Skin resorption / sensibilisation	Sk	
	2006/15/EG		
	Toluol		
	STEL	384 mg/m ³	100 ml/m ³
	TWA	192 mg/m ³	50 ml/m ³
	Skin resorption / sensibilisation	Skin	
3	ethylbenzene	100-41-4	202-849-4
	2000/39/EWG		
	Ethylbenzene		
	STEL	884 mg/m ³	200 ml/m ³
	TWA	442 mg/m ³	100 ml/m ³
	Skin resorption / sensibilisation	Skin	
	List of approved workplace exposure limits (WELs) / EH40		
	Ethylbenzene		
	STEL	552 mg/m ³	125 ml/m ³
	TWA	441 mg/m ³	100 ml/m ³
	Skin resorption / sensibilisation	Sk	



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8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn.

Personal protective equipment

Respiratory protection

If workers are exposed to concentrations above the exposure limit they must use appropriate, certified respirators. Use half-mask model with cartridge or air-fed.

Eye / face protection

Wear safety goggles to protect against solvent splashes.

Hand protection

Adhere to the professional organisation rule "Use of protective gloves".

Appropriate chemicals resistant glove tested in compliance with EN 374.

Recommendation for protection against components generally found in the products:

For short-term contact (i.e. splash protection):

Appropriate material: nitrile rubber, Neopren

Material thickness: > 0.4 mm

Breakthrough time: > 480 min

Before use, the protective glove should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties).

Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves.

Protective gloves shall be replaced immediately when physically damaged or worn. Preventive hand protection (skin protection cream) recommended. Wash immediately contaminated skin).

Design operations thus to avoid permanent use of protective gloves.

Other

Personal should wear antistatic clothings made of natural fiber or of high temperature resistant synthetic fiber. All parts of the body should be washed after contact.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form/Colour	
liquid	
clear; yellowish-white	
Odour	
of solvents	
Odour threshold	
No data available	
pH value	
No data available	
Boiling point / boiling range	
Value	111 - 138.5 °C



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Melting point / melting range			
No data available			
Setting point / solidification range			
Value	-47.4 °C		
Decomposition point / decomposition range			
No data available			
Flash point			
Value	6 °C		
Auto-ignition temperature			
Value	464 °C		
Oxidising properties			
No data available			
Explosive properties			
No data available			
Flammability (solid, gas)			
No data available			
Lower flammability or explosive limits			
Value	1.10 % vol		
Upper flammability or explosive limits			
Value	7.10 % vol		
Vapour pressure			
Value	3.8	kPa	
Reference temperature	20	°C	
Vapour density			
Value	3.1 - 3.7		
Evaporation rate			
No data available			
Relative density			
Value	0.94		
Density			
No data available			
Solubility in water			
Remarks	insoluble		
Solubility(ies)			
No data available			
Partition coefficient: n-octanol/water			
No data available			
Viscosity			
Value	60	- 65	s
Reference temperature		24	°C
Type	dynamic		
Method	#2 Zahn		
Value	140	- 160	cP
Reference temperature		24	°C
Type	kinematic		
Method	#2 Zahn		



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9.2 Other information

Other information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

No data available.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

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

10.5 Incompatible materials

Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

10.6 Hazardous decomposition products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity			
No	Substance name	CAS no.	EC no.
1	xylene	1330-20-7	215-535-7
LD50		3523	mg/kg bodyweight
Species	rat		
Method	OECD 423		
Source	ECHA		

Acute dermal toxicity (result of the ATE calculation for the mixture)	
No	Product Name
1	Bright Shield Protective Coating PC101
Remarks	The result of the applied calculation method according to the European Regulation (EC) 1272/2008 (CLP), Paragraph 3.1.3.6, Part 3 of Annex I is outside the values that imply a classification / labelling of this mixture according to table 3.1.1 defining the respective categories (ATE dermal > 2000 mg/kg).

Acute dermal toxicity	
No data available	

Acute inhalational toxicity (result of the ATE calculation for the mixture)	
No	Product Name
1	Bright Shield Protective Coating PC101
Remarks	The result of the applied calculation method according to the European Regulation (EC) 1272/2008 (CLP), Paragraph 3.1.3.6, Part 3 of Annex I is outside the values that imply a classification / labelling of this mixture according to table 3.1.1 defining the respective categories (ATE for inhalation: > 20.000 ppmV (gases), > 20 mg/l (vapours), > 5 mg/l (dusts/mists).



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Acute inhalational toxicity			
No data available			
Skin corrosion/irritation			
No data available			
Serious eye damage/irritation			
No data available			
Respiratory or skin sensitisation			
No data available			
Germ cell mutagenicity			
No	Substance name	CAS no.	EC no.
1	xylene	1330-20-7	215-535-7
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Reproduction toxicity			
No	Substance name	CAS no.	EC no.
1	xylene	1330-20-7	215-535-7
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Carcinogenicity			
No	Substance name	CAS no.	EC no.
1	xylene	1330-20-7	215-535-7
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
STOT-single exposure			
No data available			
STOT-repeated exposure			
No	Substance name	CAS no.	EC no.
1	xylene	1330-20-7	215-535-7
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Aspiration hazard			
No data available			
Delayed and immediate effects as well as chronic effects from short and long-term exposure			
Exposure of vapour concentration in excess of the stated OEL's may result in adverse health effects such as mucous membrane and respiratorysystem irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue muscular weakness, drowsiness and in extrem cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage.			
Other information			
The product was classified in toxicological terms on the basis of the results of the calculation procedure outlined within General Directive on Preparations (1999/45/EC).			



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SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)			
No	Substance name	CAS no.	EC no.
1	xylene	1330-20-7	215-535-7
LC50		2.6	mg/l
Duration of exposure		96	h
Species	Oncorhynchus mykiss		
Method	OECD 203		
Source	ECHA		

Toxicity to fish (chronic)			
No data available			

Toxicity to Daphnia (acute)			
No data available			

Toxicity to Daphnia (chronic)			
No	Substance name	CAS no.	EC no.
1	xylene	1330-20-7	215-535-7
NOEC		1.17	mg/l
Duration of exposure		7	day(s)
Species	Daphnia magna		
Source	ECHA		

Toxicity to algae (acute)			
No data available			

Toxicity to algae (chronic)			
No data available			

Bacteria toxicity			
No	Substance name	CAS no.	EC no.
1	xylene	1330-20-7	215-535-7
IC50		>	157
Duration of exposure		3	h
Species	activated sludge		
Method	OECD 209		
Source	ECHA		

12.2 Persistence and degradability

Biodegradability			
No	Substance name	CAS no.	EC no.
1	xylene	1330-20-7	215-535-7
Type	aerobic biodegradation		
Value		87.8	%
Duration		28	day(s)
Method	OECD 301 F		
Source	ECHA		
Evaluation	readily biodegradable		
2	toluene	108-88-3	203-625-9
Value		86	%
Duration		20	day(s)
Evaluation	readily biodegradable		



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12.3 Bioaccumulative potential

Bioconcentration factor (BCF)			
No	Substance name	CAS no.	EC no.
1	xylene	1330-20-7	215-535-7
BCF		<	25.9
Species		Oncorhynchus mykiss	
Source		ECHA	

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

12.7 Other information

Other information
There are no data available on the preparation itself. For components which are dangerous for the environment see section 3.
The product should not be allowed to enter drains or water courses.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste code 080111 Waste paint and varnish containing organic solvents or other dangerous substances

The listed waste code numbers, according to the European Waste Catalogue, are to be understood as a recommendation. A final decision must be made in agreement with the regional waste disposal company.

Packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Packaging that cannot be cleaned should be disposed of in agreement with the regional waste disposal company.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

Class	3
Classification code	F1
Packing group	II
Hazard identification no.	33
UN number	UN1866
Technical name	RESIN SOLUTION
Special Provision 640	640D
Tunnel restriction code	D/E
Label	3

14.2 Transport IMDG

Class	3
Packing group	II
UN number	UN1866
Proper shipping name	RESIN SOLUTION
EmS	F-E+S-E
Label	3



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14.3 Transport ICAO-TI / IATA

Class	3
Packing group	II
UN number	UN1866
Proper shipping name	Resin solution
Label	3

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

SECTION 15: Regulatory information

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

EU regulations

Restriction of occupation

Adhere to the national sanitary and occupational safety regulations when using this product.

National regulations

Other national regulations

The information given in this material safety data sheet does not release the user from its duty of risk assessment and control in the work place defined in other health and safety law.

15.2 Chemical safety assessment

No data available.

SECTION 16: Other information

Full text of the R-, H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

R10	Flammable.
R11	Highly flammable.
R20	Harmful by inhalation.
R20/21	Harmful by inhalation and in contact with skin.
R38	Irritating to skin.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R63	Possible risk of harm to the unborn child.
R65	Harmful: may cause lung damage if swallowed.
R67	Vapours may cause drowsiness and dizziness.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure



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Notes relating to the identification, classification and labelling of substances and mixtures ((EC) No 1272/2008, Annex VI)

C

Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Department issuing safety data sheet

UMCO Umwelt Consult GmbH

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This information is based on our present state of knowledge and experience.

The security data sheet describes products with a view to the security requirements.

However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.