

**Magma PermaFyx L273 Permanent Asphalt Repair**  
**[Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]**



**SAFETY DATA SHEET – Part.1**

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) 453/2010

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

**1.1. Product identifier**

**Product Name** PermaFyx L273 Resin  
Part.1 of this document covers the Magma PermaFyx L273 Permanent Asphalt Repair – Resin only.

**1.2. Relevant identified uses of the substance of mixture and uses advised against**

**Identified Uses** Grout resin  
**Recommended restrictions** Reserved for industrial and professional use.

**1.3. Details of the supplier of the safety data sheet**

**Supplier** Meon Ltd.  
Railside  
Northarbour Spur  
Portsmouth  
PO6 3TU  
+44 (0) 23 9220 0606  
mail@meonuk.com

**1.4. Emergency Telephone Number**

**Emergency telephone** +44 (0) 808 118 1922

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008** Flam. Liq. 2; H225 Skin Irrit. 2; H315 Skin Sens. 1; H317 STOT SE 3; H335

**2.2. Label elements**

**Hazard pictogram**



GHS02



GHS07

**Signal word** Danger

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<b>H-statement(s)</b>	H225 - Highly flammable liquid and vapour. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H335 - May cause respiratory irritation.
<b>P-statement(s)</b>	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash thoroughly after handling. P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. P312 - Call a POISON CENTER/doctor if you feel unwell. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse.

**Hazardous component(s) to be indicated on label** methyl methacrylate, 2-ethylhexyl acrylate, 2,2'-ethylenedioxydiethyl dimethacrylate

### 2.3. Other hazards

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

### 3.2. Mixtures

#### Hazardous ingredients (GHS)

Ingredient	Identification	Classification (EC) 1272/2008	Concentration
methyl methacrylate	CAS Number: 80-62-6 EC-Number: 201-297-1 Index-No.: 607-035-00-6 REACH No.: 01-2119452498-28-XXXX	Flam. Liq. 2; H225 STOT SE 3; H335 Skin Irrit. 2; H315 Skin Sens. 1; H317	40.0 - 45.0 % by weight
2-ethylhexyl acrylate	CAS Number: 103-11-7 EC-Number: 203-080-7 Index-No.: 607-107-00-7 REACH No.: 01-2119453158-37-XXXX	Skin Irrit. 2; H315 Skin Sens. 1; H317 STOT SE 3; H335 Aquatic Chronic 3; H412	20.0 - 25.0 % by weight
aliphatic urethanacrylate		Skin Irrit. 2; H315 Eye Irrit. 2; H319	5.0 - 10.0 % by weight
2,2'-ethylenedioxydiethyl dimethacrylate	CAS Number: 109-16-0 EC-Number: 203-652-6 REACH No.: 01-2119969287-21-XXXX	Skin Sens. 1; H317	1.0 - 5.0 % by weight
1,1'-(p-Tolylimino)dipropan-2-ol	CAS Number: 38668-48-3 EC-Number: 254-075-1 REACH No.: 01-2119980937-17-XXXX	Acute Tox. 2; H300 Eye Irrit. 2; H319 Aquatic Chronic 3; H412	0.1 - 1.0 % by weight
N,N-dimethyl-p-toluidine	CAS Number: 99-97-8 EC-Number: 202-805-4 Index-No.: 612-056-00-9 REACH No.: 01-2119937766-23-XXXX	Acute Tox. 3; H331 Acute Tox. 3; H311 Acute Tox. 3; H301 STOT RE 2; H373 Aquatic Chronic 3; H412	0.1 - 1.0 % by weight

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### SECTION 4: First aid measures

As a general rule, in case of doubt or if symptoms persist, always call a doctor.  
NEVER induce swallowing by an unconscious person.

#### 4.1. Description of first aid measures

<b>General advice</b>	Move out of dangerous area. Take off all contaminated clothing immediately. Do not leave the victim unattended. Show this safety data sheet to the doctor in attendance.
<b>If inhaled</b>	Move to fresh air. If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.
<b>In case of skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation occurs, get medical advice/attention.
<b>In case of eye contact</b>	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
<b>If swallowed</b>	Rinse mouth. Do NOT induce vomiting. Call a physician immediately.

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

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

<b>Immediate medical attention</b>	Treat symptomatically.
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### SECTION 5: Firefighting measures

Flammable

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

#### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	Carbon dioxide (CO <sub>2</sub> ), Foam, Water spray, Dry powder
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<b>Extinguishing media which must not be used for safety reasons</b>	High volume water jet
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#### 5.2. Special hazards arising from the substance or mixture

<b>Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases</b>	Violent polymerization may be caused by: Extremes of temperature and direct sunlight. Fire will produce dense black smoke containing hazardous combustion products (See Heading 10). Exposure to decomposition products may be a hazard to health.
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#### 5.3. Advice for firefighters

<b>Special protective equipment for firefighting</b>	In the event of fire, wear self-contained breathing apparatus.
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<b>Additional information on firefighting</b>	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Do not allow run-off from fire fighting to enter drains or water courses.
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### SECTION 6: Accidental release measures

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

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**Personal precautions** Ensure adequate ventilation. Vapours are heavier than air and may spread along floors. Use personal protective equipment.

### 6.2. Environmental precautions

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

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

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated surface thoroughly. Treat recovered material as described in the section "Disposal considerations".

### 6.4. Reference to other sections

**Reference to other sections** Disposal considerations See also Section 13.

### 6.5. Additional information

**Other information** Treat recovered material as described in the section "Disposal considerations".

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

Requirements relating to storage premises apply to all facilities where the mixture is handled.

### 7.1. Precautions on safe handling

**Advice on safe handling** Processing may lead to evolution of flammable volatiles. In case of insufficient ventilation, wear suitable respiratory equipment. Keep product and empty container away from heat and sources of ignition. Handle and open container with care. Avoid contact with skin and eyes.

**Precautions** Smoking, eating and drinking should be prohibited in the application area. For personal protection see Section 8. Observe label precautions.

**Advice on protection against fire and explosion** Take precautionary measures against static discharges. Vapours may form explosive mixture with air. Use water spray to cool unopened containers.

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

**Storage space and container requirements** Store in accordance with the particular national regulations. Keep in a cool, well-ventilated place. Keep in properly labelled containers. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**TRGS 510** 3

### 7.3. Specific end use(s)

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

### 8.1. Control parameters

methyl methacrylate

Great Britain				
Long-term exposure value (ppm)	Long-term exposure value (mg/m <sup>3</sup> )	Short-term exposure value (ppm)	Short-term exposure value (mg/m <sup>3</sup> )	Source
50	208	100	416	EH40/2005 Workplace

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				exposure limits (2011)
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Europe			
Long-term exposure value (ppm)	Short-term exposure value (ppm)	Issuing date	Source
50	100	2009/161	DIRECTIVE 2009/161/EU

**DNEL**

Value	Target group	Exposure route	Exposure frequency	Source
210 mg/m <sup>3</sup>	Workers	Inhalation	Long term effects, Local	Company data
210 mg/m <sup>3</sup>	Workers	Inhalation	Long term effects, Systemic	Company data
1.5 mg/cm <sup>2</sup>	Workers	Skin	Long term effects, Local	Company data
13.67 mg/kg	Workers	Skin	Long term effects, Systemic	Company data
105 mg/m <sup>3</sup>	Consumers	Inhalation	Long term effects, Local	Company data
74.3 mg/m <sup>3</sup>	Consumers	Inhalation	Long term effects, Systemic	Company data
1.5 mg/cm <sup>2</sup>	Consumers	Skin	Long term effects, Local	Company data
8.2 mg/kg	Consumers	Skin	Long term effects, Systemic	Company data
1.5 mg/cm <sup>2</sup>	Consumers	Skin	Short-term effects, Local	Company data

**PNEC**

Value	Exposure Route	Source
0.94 mg/l	Fresh water	Company data
0.094 mg/l	Marine water	Company data
5.74 mg/kg	Sediment	Company data
1.47 mg/kg	Soil	Company data

**2-ethylhexyl acrylate**

**DNEL**

Value	Target group	Exposure route	Exposure frequency	Source
37.5 mg/m <sup>3</sup>	Workers	Inhalation	Long term effects, Local	Company data
0.242 mg/cm <sup>2</sup>	Workers	Skin	Long term effects, Local	Company data
0.242 mg/cm <sup>2</sup>	Workers	Skin	Short term effects, Local	Company data
4.5 mg/cm <sup>2</sup>	Consumers	Inhalation	Long term effects, Local	Company data

**PNEC**

Value	Exposure Route	Source
0.002752 mg/l	Fresh water	Company data
0.000272 mg/l	Seawater	Company data
2.3 mg/l	Wastewater treatment plant	Company data
0.126 mg/kg	Sediment water	Company data
0.126 mg/kg	Sediment seawater	Company data
1 mg/kg	Soil	Company data
0.0023 mg/kg	Intermittent release	Company data

**2,2'-ethylenedioxydiethyl dimethacrylate**

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**DNEL**

Value	Target group	Exposure route	Exposure frequency	Source
48.5 mg/m <sup>3</sup>	Workers	Inhalation	Long term effects, Systemic	Company data
13.9 mg/kg	Workers	Dermal exposure	Long term effects, Systemic	Company data
14.5 mg/m <sup>3</sup>	Consumers	Inhalation	Long term effects, Systemic	Company data
8.33 mg/kg	Consumers	Dermal exposure	Long term effects, Systemic	Company data
8.33 mg/kg	Consumers	Oral	Long term effects, Systemic	Company data

**PNEC**

Value	Exposure Route	Source
0.164 mg/l	Fresh water	Company data
0.274 mg/kg	Soil	Company data
0.185 mg/kg	Marine sediment	Company data
1.85 mg/kg	Freshwater sediment	Company data
10 mg/l	Wastewater treatment	Company data
0.164 mg/l	Intermittent releases	Company data
0.00164 mg/l	Marine water	Company data

**1,1'-(p-Tolylimino)dipropan-2-ol**

**DNEL**

Value	Target group	Exposure route	Exposure frequency	Source
2 mg/m <sup>3</sup>	Workers	Inhalation	Long term effects	Company data
0.6 mg/kg	Workers	Skin	Long term effects	Company data

**PNEC**

Value	Exposure Route	Source
199.5 mg/l	Wastewater treatment	Company data
0.0072 mg/kg	Marine water	Company data
0.017 mg/l	Freshwater	Company data

**8.2. Exposure controls**

**General protective and hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and at the end of workday. Use protective skin cream before handling the product. Avoid contact with the skin and the eyes.

**Respiratory protection**

Vapour during processing may be irritating to the respiratory tract and to the eyes. When workers are facing concentrations above the exposure limit, they must use appropriate certified respirators.

**Remarks**

*Recommended Filter type: A1, A2 (in case of higher concentration). Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).*

**Hand protection**

Protective gloves complying with EN 374. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

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Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

<b>Unsuitable material</b>	woven fabric, Leather gloves
<b>Suitable material</b>	Nitriles
<b>Material thickness</b>	0.38 mm
<b>Break through time</b>	<25 min
<b>Eye protection</b>	Tightly fitting safety goggles
<b>Skin and body protection</b>	Wear suitable protective equipment. Long sleeved clothing
<b>Engineering measures</b>	Ensure adequate ventilation, especially in confined areas. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

### SECTION 9: Physical and Chemical Properties

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

<b>Physical State</b>	Liquid
<b>Form</b>	Liquid
<b>Colour</b>	Colourless
<b>Odour</b>	Typically of butyl acrylate
<b>pH</b>	Not applicable.
<b>Remarks</b>	<i>(non-aqueous)</i>
<b>Boiling Point (°C)</b>	> 100 °C
<b>Flash Point (°C)</b>	10 °C
<b>Evaporation rate [kg/(s*m<sup>2</sup>)]</b>	Not determined
<b>Explosion limits (vol. % )</b>	The product itself has not been tested.
<b>Lower limit</b>	methyl methacrylate 1.7 vol. %
<b>Upper limit</b>	12.5 vol. %
<b>Lower limit</b>	2-ethylhexyl acrylate 0.9 vol. %
<b>Upper limit</b>	6.4 vol. %
<b>Vapour density</b>	Not determined
<b>Density (g/cm<sup>3</sup>)</b>	1.0 g/cm <sup>3</sup>
<b>Water solubility (g/l)</b>	
<b>Remarks</b>	<i>Insoluble</i>
<b>Partition coefficient n-octanol /water (log P O/W)</b>	Not determined
<b>Viscosity, dynamic [kg/(m s)]</b>	1.600 mPa.s
<b>Measuring method</b>	Haake-Viscotester
<b>Explosive properties</b>	In use, may form flammable/explosive vapour-air mixture.
<b>Oxidising properties</b>	Not relevant

#### 9.2. Other Information

<b>Ignition temperature (°C)</b>	280 °C
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### SECTION 10: Stability and reactivity

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### 10.1. Reactivity

### 10.2. Chemical stability

### 10.3. Possibility of hazardous reactions

**Hazardous reactions** The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is noticeably exceeded, the product may polymerize with heat evolution. Risk of receptacle bursting.

### 10.4. Conditions to avoid

**Conditions to avoid** Extremes of temperature and direct sunlight.

### 10.5. Incompatible materials

**Materials to avoid** Reacts violently with peroxides. Reducing agents, Strong bases, Amines, Oxidizing agents

### 10.6. Hazardous decomposition products

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Oral Toxicity

**Hazardous ingredients**  
methyl methacrylate

Oral toxicity (mg/kg)	Test criterion	Test species	Measuring method	Source
>5001	LD50	rat	OECD Test Guideline 401	Company data

2-ethylhexyl acrylate

Oral toxicity (mg/kg)	Test criterion	Test species	Source
4435	LD50	rat	Company data

aliphatic urethanacrylate

Oral toxicity (mg/kg)	Test criterion	Test species	Source
>2001	LD50	rat	Company data

2,2'-ethylenedioxydiethyl dimethacrylate

Oral toxicity (mg/kg)	Test criterion	Test species	Remarks	Source
10066	LD50	rat	* 1)	Company data

\* 1): Information given is based on data on the components and the toxicology of similar products.

1,1'-(p-Tolylimino)dipropan-2-ol

Oral toxicity (mg/kg)	Test criterion	Test species	Measuring method	Source
26	LD50	rat	OECD Test Guideline 423	Company data

N,N-dimethyl-p-toluidine

Oral toxicity (mg/kg)	Test criterion	Test species	Source
139	LD50	rat	Company data

#### Dermal Toxicity

**Hazardous ingredients**

methyl methacrylate

Dermal toxicity (mg/kg)	Test criterion	Test species	Source
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>5001	LD50	rabbit	Company data
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**2-ethylhexyl acrylate**

Dermal toxicity (mg/kg)	Test criterion	Test species	Source
7522	LD50	rabbit	Company data

**2,2'-ethylenedioxydiethyl dimethacrylate**

Dermal toxicity (mg/kg)	Test criterion	Test species	Source
>2001	LD50	mouse	Company data

**1,1'-(p-Tolylimino)dipropan-2-ol**

Dermal toxicity (mg/kg)	Test criterion	Test species	Source
2001	LD50	rat	Company data

**N,N-dimethyl-p-toluidine**

Dermal toxicity (mg/kg)	Test criterion	Test species	Source
>2001	LD50	rabbit	Company data

**Inhalation**

**Hazardous ingredients**

**2-ethylhexyl acrylate**

Inhalative toxicity (mg/l)	Test species	Exposure duration(h)	Source
1.19	rat	8	Company data

**N,N-dimethyl-p-toluidine**

Inhalative toxicity (mg/l)	Test criterion	Test species	Source
1.4	LD50	rat	Company data

**methyl methacrylate**

LC50 Inhalation 4h for vapours (mg/l)	Test criterion	Test species	Source
29.8	LC50	rat	Company data

**N,N-dimethyl-p-toluidine**

LC50 Inhalation 4h for dusts and sprays (mg/l)	Test criterion	Test species	Source
0.8	LC50	rat	Company data

**Irritant effect on skin**

**Hazardous ingredients**

**methyl methacrylate**

Irritant effect on skin	Test species	Source
Irritating	rabbit	Company data

**2-ethylhexyl acrylate**

Irritant effect on skin	Exposure duration (h)	Test species	Source
Skin irritation	4	rabbit	Company data

**aliphatic urethanacrylate**

Irritant effect on skin	Source

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May cause skin irritation.	Company data
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**2,2'-ethylenedioxydiethyl dimethacrylate**

Irritant effect on skin	Source
No skin irritation	Company data

**1,1'-(p-Tolylimino)dipropan-2-ol**

Irritant effect on skin	Source
No skin irritation	Company data

**N,N-dimethyl-p-toluidine**

Irritant effect on skin	Source
Skin irritation	Company data

**Irritant effect on eyes**

**Hazardous ingredients**

**methyl methacrylate**

Irritant effect on eyes	Test species	Source
Irritant	rabbit	Company data

**2-ethylhexyl acrylate**

Irritant effect on eyes	Measuring method	Test species	Source
Slightly irritating	OECD Test Guideline 405	rabbit	Company data

**aliphatic urethanacrylate**

Irritant effect on eyes	Source
Causes serious eye irritation.	Company data

**2,2'-ethylenedioxydiethyl dimethacrylate**

Irritant effect on eyes	Source
No eye irritation	Company data

**1,1'-(p-Tolylimino)dipropan-2-ol**

Irritant effect on eyes	Source
Irritant	Company data

**N,N-dimethyl-p-toluidine**

Irritant effect on eyes	Source
Eye irritation	Company data

**Sensitization**

**Hazardous ingredients**

**methyl methacrylate**

Sensitization	Test species	Source
Skin sensitization	mouse	Company data

**2-ethylhexyl acrylate**

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Sensitization	Source
Skin sensitization	Company data

**2,2'-ethylenedioxydiethyl dimethacrylate**

Sensitization	Source
Skin sensitizer	Company data

**1,1'-(p-Tolylimino)dipropan-2-ol**

Sensitization	Source
No sensitization responses were observed.	Company data

**Carcinogenic effects**

**Hazardous ingredients**

**methyl methacrylate**

Carcinogenic effects	Test species	Source
Not a carcinogen	rat, mouse	Company data

**2-ethylhexyl acrylate**

Carcinogenic effects	Source
No known effect.	Company data

**2,2'-ethylenedioxydiethyl dimethacrylate**

Carcinogenic effects	Source
No known effect.	Company data

**Mutagenicity**

**Hazardous ingredients**

**methyl methacrylate**

Mutagenicity	Source
Not mutagenic	Company data

**2-ethylhexyl acrylate**

Mutagenicity	Source
No known effect.	No known

**2,2'-ethylenedioxydiethyl dimethacrylate**

Mutagenicity	Source
No known effect.	No known

**1,1'-(p-Tolylimino)dipropan-2-ol**

Mutagenicity	Source
Negative	Company data

**Reproduction toxicity**

**Hazardous ingredients**

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**methyl methacrylate**

Reproduction toxicity	Source
Not toxic to reproduction	Company data

**2-ethylhexyl acrylate**

Reproduction toxicity	Source
No known effect.	Company data

**2,2'-ethylenedioxydiethyl dimethacrylate**

Reproduction toxicity	Source
No known effect.	Company data

**Specific target organ toxicity (single exposure)**

**Hazardous ingredients**

**methyl methacrylate**

Specific target organ toxicity (single exposure) [mg/kg]	Source
Causes respiratory tract irritation.	Company data

**2-ethylhexyl acrylate**

Specific target organ toxicity (single exposure) [mg/kg]	Source
Causes respiratory tract irritation.	Company data

**Specific target organ toxicity (repeated exposure)**

**Hazardous ingredients**

**methyl methacrylate**

Specific target organ toxicity (repeated exposure) [mg/kg]	Source
No known effect.	Company data

**2-ethylhexyl acrylate**

Specific target organ toxicity (repeated exposure) [mg/kg]	Source
No known effect.	Company data

**2,2'-ethylenedioxydiethyl dimethacrylate**

Specific target organ toxicity (repeated exposure) [mg/kg]	Source
No known effect.	Company data

**11.2. Additional information**

**Experience in practice**

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Irritating to eyes, respiratory system and skin. Irritating to mucous membranes.

**SECTION 12: Ecological information**

**12.1. Toxicity**

**Toxicity to fish**

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**Hazardous ingredients**

**methyl methacrylate**

Toxicity to fish (mg/l)	Test criterion	Test species	Exposure Duration	Measuring method	Source
191	LC50	<i>Oncorhynchus mykiss</i> (Rainbow trout)	96 h	OECD Test Guideline 203	Company data

**2-ethylhexyl acrylate**

Toxicity to fish (mg/l)	Test criterion	Test species	Exposure Duration	Measuring method	Source
1.81	LC50	<i>Oncorhynchus mykiss</i> (Rainbow trout)	96 h	OECD Test Guideline 203	Company data

**2,2'-ethylenedioxydiethyl dimethacrylate**

Toxicity to fish (mg/l)	Test criterion	Test species	Exposure Duration	Measuring method	Source
16.4	LC50	<i>Brachydanio rerio</i> (Zebra fish)	96 h	OECD Test Guideline 203	Company data

**1,1'-(p-Tolylimino)dipropan-2-ol**

Toxicity to fish (mg/l)	Test criterion	Test species	Exposure duration [h]	Source
17	LC50	<i>Brachydanio rerio</i> (Zebra fish)	96 h	Company data

**N,N-dimethyl-p-toluidine**

Toxicity to fish (mg/l)	Test criterion	Source
52	LC50	Company data

**Toxicity to daphnia**

**Hazardous ingredients**

**methyl methacrylate**

Toxicity to daphnia (mg/l)	Test criterion	Test species	Exposure Duration	Measuring method	Source
69	EC50	<i>Daphnia magna</i> (Water flea)	48 h	OECD Test Guideline 202	Company data

**2-ethylhexyl acrylate**

Toxicity to daphnia (mg/l)	Test criterion	Test species	Exposure Duration	Measuring method	Source
1.3	EC50	<i>Daphnia magna</i> (Water flea)	48 h	OECD Test Guideline 202	Company data

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**aliphatic urethanacrylate**

Toxicity to daphnia (mg/l)	Test criterion	Test species	Source
>100	LC50	<i>Daphnia magna</i> (Water flea)	Company data

**2,2'-ethylenedioxydiethyl dimethacrylate**

Toxicity to daphnia (mg/l)	Test criterion	Test species	Exposure Duration	Source
30.2	EC50	<i>Daphnia magna</i> (Water flea)	21 day(s)	Company data

**1,1'-(p-Tolylimino)dipropan-2-ol**

Toxicity to daphnia (mg/l)	Test criterion	Test species	Exposure duration [h]	Source
28.8	EC50	<i>Daphnia magna</i> (Water flea)	18 h	Company data

**Toxicity to algae**

**Hazardous ingredients**

**methyl methacrylate**

Toxicity to algae (mg/l)	Test criterion	Test species	Exposure Duration	Measuring method	Source
>110	EC50	<i>Selenastrum capricornutum</i> (Green algae)	72 h	OECD Test Guideline 201	Company data

**2-ethylhexyl acrylate**

Toxicity to algae (mg/l)	Test criterion	Test species	Exposure Duration	Measuring method	Source
1.71	ErC50	<i>Desmodesmus subspicatus</i>	72 h	OECD Test Guideline 201	Company data

**2,2'-ethylenedioxydiethyl dimethacrylate**

Toxicity to algae (mg/l)	Test criterion	Test species	Exposure Duration	Measuring method	Source
>101	EC50	<i>Pseudokirchneriella subcapitata</i>	72 h	OECD Test Guideline 201	Company data

**1,1'-(p-Tolylimino)dipropan-2-ol**

Toxicity to algae (mg/l)	Test criterion	Test species	Exposure duration [h]	Source
245	EC50	<i>Desmodesmus subspicatus</i>	27 h	Company data

**NOEC Fish**

## Magma PermaFyx L273 Permanent Asphalt Repair [Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]

### Hazardous ingredients

#### methyl methacrylate

NOEC (fish) [mg/l]	Test species	Measuring method	Source
9.4	<i>Brachydanio rerio</i> (zebra fish)	OECD Test Guideline 210	Company data

#### NOEC Daphnia

### Hazardous ingredients

#### methyl methacrylate

NOEC (daphnia) [mg/l]	Test species	Measuring method	Source
37	<i>Daphnia magna</i> (Water flea)	OECD Test Guideline 202	Company data

#### NOEC Algae

### Hazardous ingredients

#### 2-ethylhexyl acrylate

NOEC (algae) [mg/l]	Test species	Measuring method	Source
0.45	<i>Desmodesmus subspicatus</i>	OECD Test Guideline 201	Company data

### 12.2. Persistence and degradability

#### Biodegradability

### Hazardous ingredients

#### methyl methacrylate

Value	Method of analysis	Source
Readily biodegradable.	OECD 301C/ ISO 9408/ EEC 92/69/V, C.4-F	Company data

#### 2-ethylhexyl acrylate

Value	Source
Readily biodegradable.	Company data

#### 2,2'-ethylenedioxydiethyl dimethacrylate

Value	Source
Readily biodegradable.	Company data

#### 1,1'-(p-Tolylimino)dipropan-2-ol

Value	Source
Poorly biodegradable.	Company data

#### N,N-dimethyl-p-toluidine

Value	Source
No data available.	Company data

### 12.3. Bioaccumulative potential

#### Bioaccumulation

## Magma PermaFyx L273 Permanent Asphalt Repair [Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]

### Hazardous ingredients

#### methyl methacrylate

Value	Source
Does not bioaccumulate.	Company data

#### 2-ethylhexyl acrylate

Value	Source
Bioaccumulation slight, log Pow 4.64	Company data

#### 2,2'-ethylenedioxydiethyl dimethacrylate

Value	Source
Slight	Company data

#### 1,1'-(p-Tolylimino)dipropan-2-ol

Value	Source
No data available	Company data

#### N,N-dimethyl-p-toluidine

Value	Source
No data available	Company data

### 12.4. Mobility in Soil

#### Mobility

### Hazardous ingredients

#### methyl methacrylate

Value	Source
Terrestrial Compartment Not relevant	Company data

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

### 12.6. Other adverse effects

**Further information on ecology** We have no quantitative data concerning the ecological effects of this product.

### 12.7. Additional information

## **SECTION 13: Disposal considerations**

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

### 13.1. Waste treatment methods

**Disposal considerations** According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. The following Waste Codes are only suggestions:

**Waste code** 08 01 11\* waste paint and varnish containing organic solvents or other dangerous substances






## Magma PermaFyx L273 Permanent Asphalt Repair [Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]

**Uncleaned empty packaging**      The return of packaging materials is regulated by the Interseroh system.

### SECTION 14: Transport information

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for Air Transport.

	Land transport ADR/RID	Marine transport IMDG	Air transport ICAO/IATA
<b>14.1. UN number</b>			
UN Number	1263	1263	1263
<b>14.2. UN proper shipping name</b>			
UN proper shipping name		PAINT	Paint
Description of the goods	PAINT	PAINT	PAINT
<b>14.3. Transport hazard class(es)</b>			
Hazard class	3	3	3
<b>14.4. Packing group</b>			
Packing group	III	III	III
Labels			
Risk No.	33		
Category	2		
Factor	3		
Classification Code	F1		
SP 640	640D		
Tunnel restriction code	D/E		
EmS		F-E; S-E	
Stowage category		B	

#### **14.5. Environmental hazards**

#### **14.6. Special precautions for user**

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

Transport in bulk according to Annex II of MARPOL and the IBC Code      Not relevant

### SECTION 15: Regulatory information

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

Additional regulations      Additionally, observe any national regulations!  
GISCODE      RMA10

#### **15.2. Chemical safety assessment**

### SECTION 16: Other information

## Magma PermaFyx L273 Permanent Asphalt Repair [Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]

<b>Relevant H-phrases</b>	<p>H225 - Highly flammable liquid and vapour.  H300 - Fatal if swallowed.  H301 - Toxic if swallowed.  H311 - Toxic in contact with skin.  H315 - Causes skin irritation.  H317 - May cause an allergic skin reaction.  H319 - Causes serious eye irritation.  H331 - Toxic if inhaled.  H335 - May cause respiratory irritation.  H373 - May cause damage to organs through prolonged or repeated exposure .  H412 - Harmful to aquatic life with long lasting effects.</p>	
<b>Wording of the hazard classes</b>	<p>Flam. Liq. - Flammable liquid  STOT SE - Specific target organ toxicity - single exposure  Skin Irrit. - Skin irritation  Skin Sens. - Skin sensitization  Aquatic Chronic - Hazardous to the aquatic environment  Eye Irrit. - Serious eye irritation  Acute Tox. - Acute toxicity  STOT RE - Specific target organ toxicity - repeated exposure</p>	
<b>Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]</b>	<p>Classification  Flam. Liq. 2; H225  Skin Irrit. 2; H315  Skin Sens. 1; H317  STOT SE 3; H335</p>	<p>Evaluation  Calculated  Calculated  Calculated  Calculated</p>
<b>Department issuing safety data sheet</b>	<p>Environmental Department</p>	
<b>Recommended restrictions</b>	<p>Reserved for industrial and professional use.</p>	

### *Disclaimer*

*This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.*

**Magma PermaFyx L273 Permanent Asphalt Repair**  
**[Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]**



**SAFETY DATA SHEET – Part.2**

According to Regulation (EC) No 1907/2006, 1272/2008 (CLP) & 2015/830

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

**1.1. Product identifier**

<b>Product Name</b>	<b>PermaFyx L273 Filler</b> Part.2 of this document covers the Magma PermaFyx L273 Permanent Asphalt Repair – Filler only.
<b>CAS No.</b>	Not applicable.
<b>EC No.</b>	Not applicable.
<b>REACH Registration No.</b>	Not known.

**1.2. Relevant identified uses of the substance of mixture and uses advised against**

<b>Identified Uses</b>	Unknown.
<b>Recommended restrictions</b>	Not known.

**1.3. Details of the supplier of the safety data sheet**

<b>Supplier</b>	Meon Ltd. Railside Northharbour Spur Portsmouth PO6 3TU +44 (0) 23 9220 0606 mail@meonuk.com
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**1.4. Emergency Telephone Number**

<b>Emergency telephone</b>	+44 (0) 808 118 1922
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**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

<b>Regulation (EC) No. 1272/2008 (CLP)</b>	Not classified as dangerous for supply/use.
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**2.2. Label elements**

According to Regulation (EC) No. 1272/2008 (CLP)

<b>Hazard pictogram</b>	
<b>Signal word</b>	None.
<b>H-statement(s)</b>	None.

# Magma PermaFyx L273 Permanent Asphalt Repair

## [Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]

P-statement(s) None.

### 2.3. Other hazards

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

### 3.2. Mixtures

Hazardous ingredient(s)	CAS No.	EC No. / REACH Registration No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
Quartz (SiO <sub>2</sub> )	14808-60-7	238-878-4	60-85	Not classified.	None
Calcium Carbonate	471-34-1	207-439-9	20-40	Not classified.	None
Neocryl	N/A	N/A	<5	Not classified.	None
Pigment	N/A	N/A	<1	Not classified.	

## SECTION 4: First aid measures

As a general rule, in case of doubt or if symptoms persist, always call a doctor.  
NEVER induce swallowing by an unconscious person.

### 4.1. Description of first aid measures

<b>If inhaled</b>	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if you feel unwell.
<b>In case of skin contact</b>	Wash skin with water and soap.
<b>In case of eye contact</b>	Flush eyes with water for at least 15 minutes. Seek medical attention if irritation persists.
<b>If swallowed</b>	Wash out mouth with water. Do not induce vomiting. Seek medical attention if you feel unwell

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

None anticipated. Treat symptomatically.

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

**Immediate medical attention** Unlikely to be required but, if necessary, treat symptomatically.

## SECTION 5: Firefighting measures

(Flammable)

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

### 5.1. Extinguishing media

**Suitable extinguishing media** As appropriate for surrounding fire.  
**Extinguishing media which must not be used for safety reasons** None

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

**Fire hazard** None anticipated.

### 5.3. Advice for firefighters

# Magma PermaFyx L273 Permanent Asphalt Repair

## [Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]

### Advice for firefighters

#### SECTION 6: Accidental release measures

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

**Personal precautions** Avoid airborne dust generation. Wear personal protective equipment in compliance with national legislation

##### 6.2. Environmental precautions

**Environmental precautions** Do not release large quantities into the surface water or into drains.

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

**Methods for cleaning up** Sweep spilled substances into containers if appropriate moisten first to prevent dusting. Wear personal protective equipment in compliance with national legislation.

##### 6.4. Reference to other sections

**Reference to other sections** See also Section 8, 13.

#### SECTION 7: Handling and storage

Requirements relating to storage premises apply to all facilities where the mixture is handled.

##### 7.1. Precautions on safe handling

**Advice on safe handling** Avoid airborne dust generation. Provide appropriate exhaust ventilation at places where airborne dust is generated. In case of insufficient ventilation, wear suitable protective equipment. Handle packaged products carefully to prevent accidental bursting. If you require advice on safe handling techniques, please contact your supplier or check the Good Practice Guide referred to in Section 16.  
Do not eat, drink or smoke in work areas. Wash hands after use.  
Remove contaminated clothing and protective equipment before entering eating areas.

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

**Storage temperature** Ambient.  
**Storage life** Stable under normal conditions.  
**Incompatible materials** None known.

##### 7.3. Specific end use(s)

**Specific end use** Not known.

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

##### 8.1. Control parameters

##### Occupational Exposure Limits

Substance	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )
Silica, respirable crystalline (CAS No. 14808-60-7)		0.1		

##### Region





Europe  
United Kingdom

##### Source

EU Occupational Exposure Limits  
Workplace Exposure Limits (WEL)

##### 8.2. Exposure controls

## Magma PermaFyx L273 Permanent Asphalt Repair [Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]

<b>Appropriate engineering controls</b>	Ensure adequate ventilation.
<b>Personal protection equipment</b>	
<b>Respiratory protection</b> 	In case of prolonged exposure to airborne dust concentrations, wear respiratory protective equipment that complies with the requirements of European or national legislation.
<b>Eye Protection</b> 	Wear eye protection with side protection (EN166).
<b>Skin protection</b> 	Not normally required.
<b>Thermal hazards</b> 	None known.
<b>Environmental exposure Controls</b>	Do not release large quantities into the surface water or into drains. Avoid wind dispersal.

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### SECTION 9: Physical and Chemical Properties

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

<b>Appearance</b>	Solid.
<b>Colour</b>	Various
<b>Odour</b>	Odourless
<b>Odour threshold</b>	Not known.
<b>pH</b>	Not known.
<b>Melting point/freezing point</b>	Not known.
<b>Initial boiling point and boiling range</b>	Not applicable.
<b>Flash Point</b>	Not applicable.
<b>Evaporation rate</b>	Not known.
<b>Flammability (solid, gas)</b>	Not known.
<b>Upper/lower flammability or explosive limits</b>	Not known.
<b>Vapour pressure</b>	Not known.
<b>Vapour density</b>	Not known.
<b>Density (g/ml)</b>	Not known.
<b>Relative density</b>	Not known.

## Magma PermaFyx L273 Permanent Asphalt Repair [Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]

Solubility(ies)	Solubility (Water): None Solubility (Other): Not known.
Partition coefficient: n-octanol/water	Not known.
Auto-ignition temperature	Not known.
Decomposition Temperature(°C)	Not known.
Viscosity	Not known.
Explosive properties	Not known.
Oxidising properties	Not known.

### 9.2. Other Information

Other information	None.
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	None anticipated.
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### 10.2. Chemical stability

Stability	Stable under normal conditions.
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### 10.3. Possibility of hazardous reactions

Hazardous reactions	No hazardous reactions known if used for its intended purpose.
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### 10.4. Conditions to avoid

Conditions to avoid	None anticipated.
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### 10.5. Incompatible materials

Materials to avoid	Not known.
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### 10.6. Hazardous decomposition products

Hazardous decomposition products	No hazardous decomposition products known.
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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity - Ingestion	Low acute toxicity
Acute toxicity - Skin Contact	Low acute toxicity
Acute toxicity - Inhalation	Low acute toxicity
Skin corrosion/irritation	Non-irritant
Serious eye damage/irritation	Non-irritant
Skin sensitization data	Not classified
Respiratory sensitization data	Not classified
Germ cell mutagenicity	There is no evidence of mutagenic potential.
Carcinogenicity	No evidence of carcinogenicity.
Reproductive toxicity	Not classified
Lactation	Not classified
STOT - single exposure	Not classified
STOT - repeated exposure	Not classified
Aspiration hazard	Not classified

### 11.2. Additional information

Not known.

## Magma PermaFyx L273 Permanent Asphalt Repair [Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]

### SECTION 12: Ecological information

#### 12.1. Toxicity

Toxicity - Aquatic invertebrates	Low toxicity to invertebrates.
Toxicity - Fish	Low toxicity to fish.
Toxicity - Algae	Low toxicity to algae.
Toxicity - Sediment	Not classified.
Compartment	
Toxicity - Terrestrial	Not classified.
Compartment	

#### 12.2. Persistence and degradability

Persistence and degradability	Not known.
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#### 12.3. Bioaccumulative potential

Bioaccumulation	Not known.
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#### 12.4. Mobility in Soil

Mobility in soil	Not known.
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#### 12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	Not known.
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#### 12.6. Other adverse effects

Further information on ecology	Not known.
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### SECTION 13: Disposal considerations

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

#### 13.1. Waste treatment methods

Waste disposal of substance	No special precautions are required for this product.
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#### 13.2. Additional Information

Additional Information	No special precautions are required for this product.
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### SECTION 14: Transport information

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for Air Transport.

Not classified as hazardous for transport.

#### 14.1. UN number

#### 14.2. UN proper shipping name

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

#### 14.4. Packing group

#### 14.5. Environmental hazards

#### 14.6. Special precautions for user

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

### SECTION 15: Regulatory information



## Magma PermaFyx L273 Permanent Asphalt Repair [Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]

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

#### European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation	Not listed
REACH: ANNEX XIV list of substances subject to authorisation	Not listed
REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Not listed
Community Rolling Action Plan (CoRAP)	Not listed
Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants	Not listed
Regulation (EC) N° 2037/2000 on substances that deplete the ozone layer	Not listed
Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals	Not listed

#### National regulations

Other	Not known
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### 15.2. Chemical safety assessment

Chemical safety assessment	A REACH chemical safety assessment has not been carried out.
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## **SECTION 16: Other information**

#### Hazard Pictogram(s)

Hazard Statement(s) None.

Precautionary Statement(s) None.

#### Acronyms

CAS - Chemical Abstracts Service  
CLP - Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  
DNEL - Derived No Effect Level  
EC - European Community  
EINECS - European Inventory of Existing Commercial Chemical Substances  
LTEL - Long term exposure limit  
PBT - Persistent, Bioaccumulative and Toxic  
PNEC - Predicted No Effect Concentration  
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals

## **Magma PermaFyx L273 Permanent Asphalt Repair [Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]**

STEL - Short term exposure limit

STOT - Specific Target Organ Toxicity

vPvB - very Persistent and very Bioaccumulative

### *Disclaimer*

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**Magma PermaFyx L273 Permanent Asphalt Repair**  
**[Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]**



**SAFETY DATA SHEET – Part.3**

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) 453/2010

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

**1.1. Product identifier**

<b>Product Name</b>	MMA Resin Peroxide
<b>Product Inclusion</b>	Part.3 of this document covers the Magma PermaFyx L273 Permanent Asphalt Repair – catalyst only.
<b>Container Size</b>	80g

**1.2. Relevant identified uses of the substance of mixture and uses advised against**

<b>Identified Uses</b>	Hardener for road repair filler (3 components) Mix only the Catalyst Part B Respect the dosage Part B/hardener indicated by the supplier Professional use only
<b>Uses advised against</b>	No specific uses advised against are identified.

**1.3. Details of the supplier of the safety data sheet**

<b>Supplier</b>	Meon Ltd. Railside Northarbour Spur Portsmouth PO6 3TU +44 (0) 23 9220 0606 mail@meonuk.com
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**1.4. Emergency Telephone Number**

<b>Emergency telephone</b>	+44 (0) 808 118 1922
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**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification according to regulation EC1272/2008 and amendments**

- Organic peroxides. Category D – H242
- Sensitisation. Skin – Hazard category 1 – H317
- Eye irritation – Hazard category 2 – H319
- Reproductive toxicity – Hazard category 2 – H361 fd
- Hazardous to the aquatic environment – Acute hazard. Category 1 – H400
- Hazardous to the aquatic environment – long term hazard. Category 3 – H412

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

- R7 – May cause fire
- R36 – Irritating to eyes
- R43 – May cause sensitization by skin contact
- R50/53 – Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- R62 – Possible risk of impaired fertility

## Magma PermaFyx L273 Permanent Asphalt Repair [Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]

### 2.2. Label Elements

Hazard pictograms



**Signal word**

Danger

**Hazardous component(s) for labeling**

Contains Dibenzoyl peroxide – Dicyclohexyl phthalate

**H-statement(s)**

H242 – Heating may cause a fire  
H317 – May cause an allergic skin reaction  
H319 – Causes serious eye irritation  
H361fd – Suspected to impair fertility – Suspected to damage the unborn child  
H400 – Very toxic to aquatic life

**P-statement(s)**

H412 – Harmful to aquatic life with long lasting effects  
P202 – Do not handle until all safety precautions have been read and understood  
P210 - Keep away from heat/sparks/open flames/hot surfaces – no smoking  
P260 – Do not breathe dust/fume/gas/mist/vapours/spray  
P273 – Avoid release to the environment  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P302+P352 – IF ON SKIN: wash with plenty of soap and water  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove cc lenses, if present and easy to do. Continue rinsing.  
P370+P378 – in case of fire: Use ABC Powder for extinction  
P410 –Protect from sunlight  
P411+P235 – Store at temperatures not exceeding 30°C. Keep cool  
P501 - Dispose of contents/container in accordance with local and national regulation

### 2.3. Other hazards

Avoid an uncontrolled polymerization. Use only with Catalyst part B, respect the ratio part B/hardener.

The product is not classified as PBT or vPvB (REACH- Annex XIII)

### SECTION 3: Composition/information on ingredients

SUBSTANCE [ ] MIXTURE [X]

#### Dangerous component(s)

Ingredient	N°CAS N° CE N° Index N° Enregistrement REACH	Classification (EEC) No 67/548	Concentration
		Classification (EC) 1272/2008	
Dibenzoyl peroxide	94-36-0 202-327-6 617-008-00-0 2119511472-50-xxxx	E - R3 O - R7 Xi – R36 –R43 N- R50/53	>45 - < 51
		Org. Perox. B – H241 Skin Sens. 1 – H317 Eye Irrit. 2 – H319 Aquatic Acute 1 – H400 (M=10)**	
Diclohexyl phthalate	84-61-7 201-545-9	R43 R53	>45 - < 51

**Magma PermaFyx L273 Permanent Asphalt Repair**  
**[Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]**

	***** 2119978223-34-XXXX	R62	
		Skin Sens. 1 – H317 Repr. 2 – H361fd Aquatic Chronic. 3 – H412	

The full text for all H and R phrases are displayed in section 16

\*\* =Factor M: Regulation EC/1272/2008 point 4.1.3.5.5

**SECTION 4: First aid measures**

Take off all contaminated clothing immediately. Never give anything by mouth to an unconscious person.

**4.1. Description of first aid measures**

- In case of inhalation:** Move immediately subject to fresh air and keep him calm.  
Place the victim in a position where it can easily breathe.  
If breathing is difficult, seek medical attention.
- In case of skin contact:** Wash immediately with non-abrasive soap and plenty of water, at least 15 minutes. If skin irritation persists, consult a doctor.  
Wash contaminated clothing before re-using.
- In case of eye contact:** Rinse immediately with plenty of water for at least 15 minutes, holding eyelids open.  
If the person uses contact lenses, remove them with caution.  
Quickly consult a specialist if irritation persists.
- In case of ingestion:** Do not induce vomiting. Get medical attention immediately.

**4.2. Most important symptoms and effects, both acute and delayed**

See sections 2 and 11

**4.3. Indication of any immediate medical attention and special treatment needed**

No data available

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

- Suitable extinguishing media** If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO2)
- Extinguishing media which must not be used for safety reasons** high volume water jet

**5.2. Special hazards arising from the substance or mixture**

- Specific hazards during firefighting** Contains substances that may result in explosion caused by heat  
The product decomposes in an explosives way from 60°C.  
The products of decomposition must be considered as potentially dangerous and precautions must be taken in consequences (mix of benzene, benzoic acid, biphenyl, phenyl benzoate, carbon dioxide,...).

**5.3. Advice for firefighters**

- Special protective equipment for firefighting.** Wear full firefighting protective clothing and self-contained breathing apparatus.  
Use water spray to keep fire-exposed containers cool.  
Do not allow fire extinguishing water to contaminate surface or groundwater systems.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**For non-first aid worker**

Evacuate the danger zone, follow emergency precautions.

Avoid contact with the material, do not breath vapours or aerosols, if possible, provide additional ventilation.

## Magma PermaFyx L273 Permanent Asphalt Repair [Part.1 – Resin | Part.2 – Filler | Part.3 – Catalyst]

Personal protection equipment must be used (see section 8).

Remove all source of ignition.

### For first aid worker

Eliminate all ignition sources. Do evacuate people on the surrounding area.

Do not take action without proper training and emergency equipment.

Use breathing apparatus if exposed to vapours/dust/mist/aerosol.

### 6.2. Environmental precautions

Do not allow to enter drains, sewers surface or ground water.

Use appropriate containment to avoid environmental contamination.

Inform the relevant authorities if the product has caused environmental pollution (sewers, waterway, soil or air).

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

Stop leak if without risk – Move containers from spill area – Prevent entry into sewers, surface water

Collect the product with a shovel and a broom. Moisten slightly to avoid dust.

Do not close hermetically the packaging which contain the wet product.

Contaminated absorbent material and wash waters may pose the same hazards as the spilled product.

### 6.4. Reference to other sections

See section 7 for information on safe handling

See section 8 for information on personal protection equipment

See section 13 for disposal information

## SECTION 7: Handling and storage

### 7.1. Precautions on safe handling

Observe all label precautions – Use appropriate Personal protective equipment (section 8 -)

Avoid breathing vapour/dust – Avoid contact with skin

Keep away from heat and sources of ignition - Take all precautions to prevent the accumulation of electrostatic charge.

Eating, drinking and smoking should be prohibited in areas where this product is handled, stored and used.

Worker should wash hands and face before eating, drinking and smoking.

Keep in the original container and kept tightly closed when not in use.

Provide good ventilation of working area (local exhaust ventilation if necessary).

During processing and handling of the product, comply with the indicative occupational exposure limit values

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

Store in cool, dry, well ventilated place and keep container tightly closed. (5°C to 25°C), away from food and drink

Store in accordance with local regulations

Keep away from sources of ignition. Take precautionary measures against electrostatic charge.

Pay attention to the special requirements of your local authorities for storing dangerous goods.

Store only in the original receptacle with suitable labels.

### 7.3. Specific and uses

No other additional special end use are anticipated

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

- Ingredients with limit values that requires monitoring at the workplace

**Dibenzoyl peroxide** - VME = 5 mg/m<sup>3</sup> - (France) –

VME = mean exposure: 8 hours/day – 5 days/week

VLE = exposure limit value: 15 minutes

#### DNEL – Worker

Substance	Inhalation Short exposure	Inhalation Long exposure	Dermal Long exposure
Dibenzoyl peroxide	No data available	11.75 mg/m <sup>3</sup> (es)	6.6 mg/kg bw/d (es)
Dicyclohexyl phtalate	No data available	35.2 mg/m <sup>3</sup> (el)	0.5 mg/kg bw/d (es)

#### DNEL - Population

Substance	Inhalation Long exposure	Inhalation Short exposure	Dermal Long exposure	Ingestion Exposition Long term
Dibenzoyl peroxide	2.9 mg/m <sup>3</sup> (es)	No data available	3.3 mg/kg bw/d (es)	1.65 mg/kg bw/d (es)

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Dicyclohexyl phtalate	0.87 mg/m <sup>3</sup> (es)	0.87 mg/m <sup>3</sup> (es)	0.25 mg/kg bw/d (es)	0.25 mg/kg bw/d (es)
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\*(es) :systemic effect - \*(el) : local effect - Data : ECHA (registered substances)

### PNEC: Predicted No Effect Concentration

Substance	Fresh water (Mg/l)	Marine water ((mg/l)	Sediment Fresh water (mg/kg)	Sediment Marine water (mg/kg)	STP (mg/l)	SOIL (mg/kg)
Dibenzoyl peroxide	0.000602	0.000602	0.338	No data available	0.35	0.0758
Dicyclohexyl phtalate	0.00362	0.000362	1.06	0.106	10	0.21

Data: ECHA (registered substances)

### 8.2. Exposure controls

#### Personal protection measures,

Provide adequate ventilation.  
Observe occupational exposure limits.  
Do not breathe dust. Avoid contact with eyes and skin  
Store work clothing separately. Take off contaminated clothing immediately.  
Follow the usual good standards of occupational hygiene. After work and before eating, drinking or smoking, wash face and hands thoroughly with soap and water.

**Pregnant women should not be exposed to this product**

**Avoid the exposure of sensitive persons**

In case of using individual protection equipment they should have the “CE marking” in accordance with Directive 89/686/EC. For more information on personal Protection equipment (storage, use, cleaning, maintenance, class of protection, ..) consult the information leaflet provided by the manufacturer.

#### Respiratory protection

Use suitable respiratory equipment (mask EN 149-2001- FFP2 or FFP3)

#### Hand Protection

Only use chemical protective gloves EN 374 [Nitril- Viton- Neoprene 45µ]  
Gloves should be replaced regularly, especially after extended contact with the product. For each work-place a suitable glove type has de selected.

Replace gloves immediately when torn or any change in appearance is notified (dimension, colour, flexibility,..)

The selection of suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer

#### Eye Protection

Tightly sealed goggles (EN 166).

Provide eye wash fountain and safety shower in close proximity to points of potential exposure, if it is possible

#### Body protection

Wear appropriate work clothing to prevent any possibility of skin contact

## SECTION 9: Physical and Chemical Properties

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

Appearance- Colour - Odour	Solid. Powdery – White- Characteristic odour
pH	Non-applicable
Boiling Point [°C]	Non-applicable
Flash point	Non-applicable
Evaporate Rate	Non-applicable
Solubility in water	Non-applicable

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<b>Flammable limits</b>	Non-applicable
<b>Vapour pressure</b>	Non-applicable
<b>Relative vapour density (related to air)</b>	No data available
<b>Gravity</b>	620 kg/m <sup>3</sup> - 20°C
<b>Partition coefficient (n-octanol/water)</b>	No data available
<b>Auto ignition temperature</b>	Non-applicable
<b>Decomposition temperature</b>	62°C

### 9.2. Other information

No data available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

None when used as directed.

### 10.2. Chemical stability

Stable under normal temperature condition and recommended use

### 10.3. Possibility of hazardous reactions

None under normal processing

Decomposition auto-accelerated from 60°C (SADT)

### 10.4. Conditions to avoid

Heat - Flames and sparks- Sunlight

### 10.5. Incompatible materials

Avoid contact with rust, copper, heavy metals, strong oxidizing agents, strong acids and strong bases

### 10.6. Hazardous decomposition products

See 5.2

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

The mixture was not tested, application of the conventional method from different substances which compose it.

#### Acute Toxicity

Substance (s)	LD50 oral/rat	LD50 Dermique lapin	LC Inhalation
Dibenzoyl peroxide	> 5 000 mg/kg	> 5 000 mg/kg	Rat (4h) = 24.3 mg/l
Dicyclohexyle phtalate	> 2 000 mg/kg	No data available	No data available

This product is not classified as toxic

**Skin corrosion/irritation:** Product contains classified substances as irritating for the skin

**Serious eye damage- Eye irritation:** Product enters in this hazard class

**Respiratory/ Skin sensitization:** Product is classified in this hazard class – Sensitisation by skin contact

**Specific Target organ Toxicity – Single exposure:** Product is not classified in this hazard class

**Specific Target organ Toxicity – Repeated exposure:** Product is not classified in this hazard class

#### CMR :

**Carcinogenicity:** There are no known carcinogenic chemicals in this product

**Reproductive Toxicity:** Product is classified in this hazard class / Exposure to the product can endanger fertility of human beings

**Germ cell Mutagenicity:** Product is not classified in this hazard class

### 11.1.2. Mixture

No toxicological data available for the mixture.



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### SECTION 12: Ecological information

The mixture was not tested, application of the conventional method from different substances which compose it.

#### 12.1. Toxicity

Substance(s)	CL50 - Fish	EC50 – Aquatic invertebrates	LC50 - Algae
Dibenzoyl peroxide - factor M = 10	(96h) : 0.0602 mg/l	(48h) = 0.11 mg/l	(72h) = 0.071 mg/l
Dicyclohexyle phtalate	(96h) = 10 - 100 mg/l	(48h) = 10 - 100 mg/l	(96h) = 10 – 100 mg/l

Do not reject in sewers or in natural environment

Prevent the product from entering soil, natural bodies of water and sewer systems

#### 12.2. Persistence and degradability

No data available

#### 12.3. Bioaccumulative potential

Product does not cause bioaccumulation

#### 12.4. Mobility in soil

No further relevant information available

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

This product does not contain any BPT or vPvB substance

#### 12.6. Other adverse effects


No data available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Residues of cured MMA based products in empty containers do not need to be treated as hazardous waste. Clean empty containers should be disposed of in accordance with Local Authority guidelines. Cured product can be disposed of as industrial waste. Unused resin and powder catalyst must be treated as hazardous waste.

### SECTION 14: Transport information

	ADR / RID	IMDG	IATA
14.1 N° ONU		3106	
14.2 UN proper shipping name	PEROXYDE ORGANIQUE de type D, solide (Dibenzoyl peroxyde)		
14.3 Transport hazard classe label	5.2 		
14.4 Packing Group	Non-applicable	Non-applicable	Non-applicable
14.5 Dangerous for Environment	Yes	Yes	Yes
14.6 Special precautions for users	Tunnel restriction : D Limited quantities: 500g	Limited quantities :500g	
14.7 Transport in bulk (annexe II MARPOL 73/78 ans IBC code)	Non-applicable		

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### SECTION 15: Regulatory information

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

Ozone depleting substances: Non applicable

Persistent organic Pollutants: Non applicable

Occupational restrictions: Note for juvenile. Note for pregnant woman and nursing mother (92/85/EEC)

Regulation REACH: EC 1907/2006

Regulation CLP: EC 1272/2008 on classification, labelling and packaging for substances and mixture

Regulation EU N° 453/2010 on safety data sheets

Candidate substances for authorization Regulation REACH: EC 1907/2006 Annex XIV: Non applicable

#### **Specific provisions in terms of protecting people or the environment**

It is recommended to use information included in this safety data sheet as data used in risk evaluation of the local circumstances in order to establish the necessary prevention measures for the manipulation, use, storage and disposal of this product

#### **15.2 Chemical safety assessment**

The supplier has not carried out evaluation of chemical safety

### SECTION 16: Other information

#### **Legislation related to safety data sheets**

This safety data sheet has been designed in accordance with the Regulation EC 1907/2006 (REACH) and the Regulation EC 453/2010 'Guide to the compilation of safety data sheets'.

#### **Modifications on the safety data sheet**

Writing of the document in accordance with regulation EC 1907/2006 and EC 1272/2008

#### **Relevant H & R phrases from section 3**

R3 - Extreme risk of explosion by shocks, friction, fire or other sources of ignition.

R3 - Extreme risk of explosion by shocks, friction, fire or other sources of ignition.

R7 - May cause fire

R36 - Irritating to eyes

R43 - May cause sensitisation by skin contact

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R53 - May cause long-term adverse effects in the aquatic environment

R62 - Possible risk of impaired fertility

H241 - Heating may cause a fire or explosion

H317 - May cause an allergic skin reaction

H319 - Cause serious eye irritation

H361fd - Suspected of damaging fertility or the unborn child

H400 - Very toxic for aquatic life

H412 - Harmful to aquatic life with long lasting effects

#### **Advice related to training**

Minimal training is recommended to prevent industrial risk for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

#### **Main bibliographical sources**

<http://esis.jrc.ec.europa.eu>

<http://echa.europa.eu>

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

#### **Abbreviations and acronyms**

ADR – European agreement concerning the international carriage of dangerous goods by road

IMDG – International Maritime Dangerous Goods code

IATA - International Air transport Association

COD – Chemical Oxygen Demand

BOD5 – 5-day Biochemical Oxygen Demand

LD50 – Lethal Dose 50

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LC50 – Lethal concentration 50

EC50 – Effective concentration 50

### *Disclaimer*

*This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.*