

MATERIAL SAFETY DATA SHEET (MSDS)

UniPak™ Mortar Powder Component

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

1.1 Product identifier

Product name UniPak™ Mortar Powder Component

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

Product Use [SU22] Professional uses: Public domain (administration, education, entertainment, services, craftsmen); [SU19] Building and construction work; [PC0] Other; [PROC19] Hand-mixing with intimate contact and only PPE available; [ERC3] Formulation in materials;

1.3. Details of the supplier of the safety data sheet

Company Wrekin Products Ltd
Address Europa Way, Britannia Enterprise Park
Lichfield. WS14 9TZ
United Kingdom
Web www.wrekinproducts.com
Telephone +44 (0)1543 440440
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Email sales@wrekinproducts.com

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.2 Classification - EC 1272/2008 Repr. 1B: H360;

2.2 Label elements

Hazard pictogram



Signal word Danger

Hazard statement Repr. 1B: H360 - May damage fertility or the unborn child

Precautionary Statement: P201 - Obtain special instructions before use.

Prevention P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statement: P308+P313 - IF exposed or concerned: Get medical advice/attention.
Response

Precautionary Statement: P405 - Store locked up.
Storage

Precautionary Statement: P501 - Dispose of contents/container to licensed waste disposal site
Disposal

SECTION 3: Composition/information on ingredients

3.2. Mixtures

EC 1272/2008

Chemical name	Index No.	CAS No.	EC No.	REACH Registration No.	Conc. (%w/w)	Classification
Silica Sand (<1% Respirable Quartz)		14808-60-7	238-878-4		90-100%	
Dicyclohexyl phthalate		84-61-7	201-545-9		0-0.5%	Skin Sens. 1: H317; Repr. 1B: H360; Aquatic Chronic 3: H412;
Benzol Peroxide (Dibenzoyl peroxide)	617-008-00-0	94-36-0	202-327-6		0-0.5%	Org. Perox. B: H241; Eye Irrit. 2: H319; Skin Sens. 1: H317;

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Irritating to respiratory system. Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system. Move the exposed person to fresh air. Seek medical attention.
Eye contact	Irritating to eyes. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.
Skin contact	Irritating to skin. Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.
Ingestion	Ingestion may cause nausea and vomiting. Seek medical attention if irritation or symptoms persist. DO NOT INDUCE VOMITING.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Carbon oxides. Contains peroxide - Oxidising Agent - may intensify fire.

5.2. Special hazards arising from the substance or mixture

Burning produces irritating, toxic and obnoxious fumes.

5.3. Advice for firefighters

Wear suitable respiratory equipment when necessary.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid raising dust. Ensure adequate ventilation of the working area. Wear suitable protective equipment.

6.2. Environmental precautions

Do not allow product to enter drains. Prevent further spillage if safe.

6.3. Methods and material for containment and cleaning up

Sweep up. Transfer to suitable, labelled containers for disposal. Clean spillage area with plenty of water.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Adopt best Manual Handling considerations when handling, carrying and dispensing.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a cool, dry, well ventilated area. Keep containers closed. Store in correctly labelled containers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure Limit Values

Silica Sand	WEL 8-hr limit ppm: - WEL 15 min limit ppm: - WEL 8-hr limit mg/m3 total inhalable dust: 10 WEL 8-hr limit mg/m3 total respirable dust: 4	WEL 8-hr limit mg/m3: 0.1 WEL 15 min limit mg/m3: - WEL 15 min limit mg/m3 total inhalable dust: WEL 15 min limit mg/m3 total respirable dust:
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8.2. Exposure controls



8.2.1. Appropriate engineering controls

Ensure adequate ventilation of the working area.

8.2.2. Individual protection measures

Wear chemical protective clothing.

Eye / face protection

Approved safety goggles for use with possible polyester resin materials

Skin protection - Hand protection

Chemical resistant gloves (PVC).

Respiratory protection

Wear Suitable respiratory equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Powder
Colour	Various
Odour	Characteristic
pH	Not applicable.
Melting point	Not applicable.
Freezing Point	Not applicable.
Initial boiling point	Not applicable.
Flash point	Not applicable.
Upper Explosive Limit	Not applicable.
Lower Explosive Limit	Not applicable.
Vapour pressure	Not applicable.
Relative Vapour Density	Not applicable.
Partition coefficient (n-octanol/water)	Not applicable.
Autoignition temperature	Not applicable.
Decomposition temperature	Not applicable.
Viscosity	Not applicable.
Solubility	Insoluble in water

9.2 Other information

Bulk Density	≈ 2 g/cm ³
VOC (Volatile organic compounds)	Not determined

Further information

Further information on the physical and chemical properties is not available as the main component is an inert, non hazardous substance.

SECTION 10: Stability and reactivity

10.1. Reactivity

Avoid contact with: Strong bases, Strong acids.

10.2. Chemical stability

Stable under normal conditions.

10.3. Conditions to avoid

Avoid sparks, flames, heat and sources of ignition.

SECTION 11: Physical and chemical properties

11.1 Information on hazard classes

Acute toxicity	May cause sensitisation by skin contact.
Skin corrosion/irritation	Not classified (Based on available data, the classification criteria are not met).
Serious eye damage/irritation	Not classified (Based on available data, the classification criteria are not met).
Respiratory or skin sensitisation	May cause sensitisation by skin contact.
Germ cell mutagenicity	Not classified (Based on available data, the classification criteria are not met).
Carcinogenicity	Not classified (Based on available data, the classification criteria are not met).
Reproductive toxicity	May cause harm to the unborn child. May impair fertility.
STOT-single exposure	Not classified (Based on available data, the classification criteria are not met).
STOT-repeated exposure	Not classified (Based on available data, the classification criteria are not met).
Aspiration hazard	Not classified (Based on available data, the classification criteria are not met).

11.1 Information on hazard classes

Repeated or prolonged exposure	Not classified (Based on available data, the classification criteria are not met).
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11.1.4. Toxicological Information

No data available

SECTION 12: Ecological information

12.1. Toxicity

No data available

SECTION 13: Disposal considerations

General information

Dispose of in compliance with all local and national regulations.

SECTION 14: Transport information

14.1. UN number

The product is not classified as dangerous for carriage.

14.2. UN proper shipping name

The product is not classified as dangerous for carriage

14.3. Transport hazard class(es)

The product is not classified as dangerous for carriage

14.4. Packing group

The product is not classified as dangerous for carriage

14.5. Environmental hazards

The product is not classified as dangerous for carriage

14.6. Special precautions for user

The product is not classified as dangerous for carriage

14.7 Maritime Transport in bulk according to IMO instruments

The product is not classified as dangerous for carriage

Further information

The product is not classified as dangerous for carriage

SECTION 15: Regulatory information

SECTION 16: Other information

Other information

This document differs from the previous version in the following areas:

- Revision**
- 9 - 9.1. Information on basic physical and chemical properties (PH).
 - 9 - 9.1. Information on basic physical and chemical properties (Initial boiling point).
 - 9 - 9.1. Information on basic physical and chemical properties (Melting point).
 - 9 - 9.1. Information on basic physical and chemical properties (Flash point).
 - 9 - 9.1. Information on basic physical and chemical properties (Autoignition temperature).
 - 9 - 9.1. Information on basic physical and chemical properties (Vapour pressure).
 - 9 - 9.1. Information on basic physical and chemical properties (Viscosity).
 - 9 - 9.1. Information on basic physical and chemical properties (Relative Vapour Density).
 - 9 - 9.1. Information on basic physical and chemical properties (Freezing Point).
 - 9 - 9.1. Information on basic physical and chemical properties (Upper Explosive Limit).
 - 9 - 9.1. Information on basic physical and chemical properties (Lower Explosive Limit).
 - 9 - 9.1. Information on basic physical and chemical properties (Decomposition temperature).
 - 9 - 9.1. Information on basic physical and chemical properties (Solubility).
 - 9 - 9.1. Information on basic physical and chemical properties (Partition coefficient (n-octanol/water)).
 - 9 - 9.2. Other information (Product Subcategory).
 - 9 - 9.2. Other information (Bulk Density).
 - 11 - Skin corrosion/irritation.
 - 11 - Respiratory or skin sensitisation.
 - 11 - Repeated or prolonged exposure.
 - 11 - Germ cell mutagenicity.
 - 11 - Carcinogenicity.
 - 11 - Reproductive toxicity.
 - 11 - Serious eye damage/irritation.
 - 11 - STOT-single exposure.
 - 11 - STOT-repeated exposure.
 - 11 - Aspiration hazard.
 - 16 - Maximum content of VOC.

Text of Hazard Statements in Section 3

Skin Sens. 1: H317 - May cause an allergic skin reaction.
Repr. 1B: H360 - May damage fertility or the unborn child .
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.
Org. Perox. B: H241 - Heating may cause a fire or explosion.
Eye Irrit. 2: H319 - Causes serious eye irritation.

Further information

The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. 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 other process.

MATERIAL SAFETY DATA SHEET (MSDS)

UniPak™ Mortar Resin Soloution

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

1.1 Product identifier

Product name UniPak™ Mortar Resin Solution

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

Product Use [SU22] Professional uses: Public domain (administration, education, entertainment, services, craftsmen); [SU19] Building and construction work; [PC1] Adhesives, sealants; [PROC19] Hand-mixing with intimate contact and only PPE available; [ERC3] Formulation in materials; [AC4] Stone, plaster, cement, glass and ceramic articles;

1.3. Details of the supplier of the safety data sheet

Company Wrekin Products Ltd
Address Europa Way, Britannia Enterprise Park
Lichfield. WS14 9TZ
United Kingdom
Web www.wrekinproducts.com
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Further information

Intended use This product is intended for use as in the installations, bedding or grouting of paving for highways or pavements.
UFI No. 4E1W-5FTQ-N99C-5WDT.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.2 Classification - EC 1272/2008 Flam. Liq. 3: H226; Asp. Tox. 1: H304; Skin Irrit. 2: H315; Eye Irrit. 2: H319; Acute Tox. 4: H332; STOT SE 3: H335; Repr. 2: H361d; STOT RE 1: H372; Aquatic Chronic 3: H412;

2.2 Label elements

Hazard pictogram



Signal word

Danger

Hazard statement

Flam. Liq. 3: H226 - Flammable liquid and vapour.
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.
Skin Irrit. 2: H315 - Causes skin irritation.
Eye Irrit. 2: H319 - Causes serious eye irritation.
Acute Tox. 4: H332 - Harmful if inhaled.
STOT SE 3: H335 - May cause respiratory irritation.
Repr. 2: H361d - Suspected of damaging the unborn child.
STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure .
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.

Precautionary Statement:	P201 - Obtain special instructions before use.
Prevention	P202 - Do not handle until all safety precautions have been read and understood. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 - Keep container tightly closed. P240 - Ground/bond container and receiving equipment. P241 - Use explosion-proof electrical/ventilating/lighting// equipment. P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary Statement:	P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor/ .
Response	P302+P352 - IF ON SKIN: Wash with plenty of water/ . P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 - IF exposed or concerned: Get medical advice/attention. P312 - Call a POISON CENTER/doctor/ /if you feel unwell. P314 - Get medical advice/attention if you feel unwell. P321 - Specific treatment (see on this label). P331 - Do NOT induce vomiting. P332+P313 - If skin irritation occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention. P370+P378 - In case of fire: Use to extinguish.
Precautionary Statement:	P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
Storage	P403+P235 - Store in a well-ventilated place. Keep cool. P405 - Store locked up.
Precautionary Statement:	P501 - Dispose of contents/container to licensed waste disposal site
Disposal	

SECTION 3: Composition/information on ingredients

3.2. Mixtures

EC 1272/2008

Chemical name	Index No.	CAS No.	EC No.	REACH Reg. No.	Conc. (%w/w)	Classification
Styrenes (Styrene)		100-42-5	202-851-5		40-50%	Flam. Liq. 3: H226; Asp. Tox. 1: H304; Skin Irrit. 2: H315; Eye Irrit. 2: H319; Acute Tox. 4: H332; STOT SE 3: H335; Repr. 2: H361d; STOT RE 1: H372; Aquatic Chronic 3: H412;
4-naphthoquinone		103-15-4	204-977-6		0-0.5%	Acute Tox. 3: H301; Acute Tox. 3: H311; Skin Corr. 1C: H314; Skin Sens. 1: H317; Acute Tox. 1: H330; STOT SE 3: H335; Aquatic Acute 1: H400; Aquatic Chronic 1: H410;

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Harmful by inhalation. Inhalation may cause nausea and vomiting. May cause dizziness and headache. Move the exposed person to fresh air. Seek medical attention.
Eye contact	May cause irritation to eyes. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.
Skin contact	May cause irritation to skin. May cause dermatitis. Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.
Ingestion	Harmful if swallowed. Ingestion may cause nausea and vomiting. Ingestion is irritating to the respiratory tract and may cause damage to the central nervous system. DO NOT INDUCE VOMITING. If swallowed, seek medical advice immediately and show this container or label.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Use as appropriate: Carbon dioxide (CO₂), Dry chemical, Foam.

5.2. Special hazards arising from the substance or mixture

Burning produces irritating, toxic and obnoxious fumes.

5.3. Advice for firefighters

Wear suitable respiratory equipment when necessary.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation of the working area. Eliminate all sources of ignition. Wear suitable protective equipment.

6.2. Environmental precautions

Do not allow product to enter drains. Prevent further spillage if safe.

6.3. Methods and material for containment and cleaning up

Absorb with inert, absorbent material. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Use explosion proof equipment. Keep away from sources of ignition - No smoking. Adopt best Manual Handling considerations when handling, carrying and dispensing.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a cool, dry, well ventilated area. Keep containers tightly closed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure Limit Values

Silica Sand	WEL 8-hr limit ppm: - 100	WEL 8-hr limit mg/m ³ :
	WEL 15 min limit ppm: - 250	WEL 15 min limit mg/m ³ :
	WEL 8-hr limit mg/m ³ total inhalable dust: -	WEL 15 min limit mg/m ³ total inhalable dust: -
	WEL 8-hr limit mg/m ³ total respirable dust: -	WEL 15 min limit mg/m ³ total respirable dust: -

Styrenes (Styrene)	WEL 8-hr limit ppm: - 100	WEL 8-hr limit mg/m ³ : 430
	WEL 15 min limit ppm: - 250	WEL 15 min limit mg/m ³ : 1080
	WEL 8-hr limit mg/m ³ total inhalable dust: -	WEL 15 min limit mg/m ³ total inhalable dust: -
	WEL 8-hr limit mg/m ³ total respirable dust: -	WEL 15 min limit mg/m ³ total respirable dust: -

DNEL: Derived no-effect level.

Exposure Pattern - Workers

UniPak™ Mortar Resin Solution	Acute inhalation - Systemic effects 289 mg/m ³	
	Acute inhalation - Local effects 306 mg/m ³	Long-term - inhalation - Systemic effects 85 mg/m ³
	Long-term - dermal - Systemic effects 406 mg/kg	

Exposure Pattern - General population

UniPak™ Mortar Resin Solution	Acute inhalation - Systemic effects 174.25 mg/m ³	
	Acute inhalation - Local effects 182.75 mg/m ³	Long-term - inhalation - Systemic effects 10.2 mg/m ³
	Long-term - dermal - Systemic effects 343 mg/kg	Long-term - oral - Systemic effects 2.1 mg/m ³

8.2. Exposure controls



8.2.1. Appropriate engineering controls

Ensure adequate ventilation of the working area.

8.2.2. Individual protection measures

Wear chemical protective clothing.

Eye / face protection

Approved safety goggles

Skin protection - Hand protection

Chemical resistant gloves (PVC).

Respiratory protection

Wear suitable respiratory equipment when necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Amber
Odour	Characteristic
Odour threshold	>0.15 ppm
pH	7
Melting point	>25°C
Initial boiling point	145°C
Flash point	33°C
Upper Explosive Limit	6.1%
Lower Explosive Limit	1.1%
Vapour pressure	670 Pa
Relative Vapour Density	3.6 g/cm ³
Density / relative density	1.1 (H ₂ O = 1 @ 20°C)
Partition coefficient (n-octanol/water)	>2
Autoignition temperature	490°C
Viscosity	>0.205 x 10 ⁻⁶ ms ² /s @ 40°C (ISO 3104/3105)
Solubility	Insoluble in water

9.2 Other information

Specific gravity	1.05 - 1.2g/cm ³
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SECTION 10: Stability and reactivity

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Oxidising agents.

10.4. Conditions to avoid

Heat, sparks and open flames.

SECTION 11: Toxicological information

11.1.4. Toxicological Information

UniPak™ Mortar Resin Solution	Dermal Rat LD50: >2000mg/kg Oral Rat LD50: >5000mg/kg Inhalation Rat LC50/4 h: 10-20mg/L
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SECTION 12: Ecological information

12.1. Toxicity

No data available

SECTION 13: Disposal considerations

General information

Dispose of in compliance with all local and national regulations.

SECTION 14: Transport information

Hazard pictogram



14.1. UN number

UN1866

14.2. UN proper shipping name

RESIN SOLUTION

14.3. Transport hazard class(es)

ADR/RID	3
Subsidiary risk	-
IMDG	3
Subsidiary risk	-
IATA	3
Subsidiary risk	-

14.4. Packing group

Packing group	III
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14.5. Environmental hazards

Environmental Hazards	NO
Marine pollutant	NO

ADR/RID

Hazard ID	30
Tunnel Category	(D/E)

IMDG

EmS code	F-E S-E
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IATA

Packing Instruction (Cargo)	366
Maximum quantity	220 L
Packing Instruction (Passenger)	355
Maximum quantity	60 L

SECTION 15: Regulatory information

SECTION 16: Other information

Other information

Revision	<p>This document differs from the previous version in the following areas:</p> <ul style="list-style-type: none">2 - 2.1. Classification of the substance or mixture.2 - 2.1.2. Classification - EC 1272/2008.2 - Hazard pictograms.2 - Signal Word.2 - Precautionary Statement: Prevention.2 - Precautionary Statement: Response.2 - Precautionary Statement: Storage.15 - Labelling.15 - Risk phrases.
Text of Hazard Statements in Section 3	<p>Flam. Liq. 3: H226 - Flammable liquid and vapour. Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways. Skin Irrit. 2: H315 - Causes skin irritation. Eye Irrit. 2: H319 - Causes serious eye irritation. Acute Tox. 4: H332 - Harmful if inhaled. STOT SE 3: H335 - May cause respiratory irritation. Repr. 2: H361d - Suspected of damaging the unborn child. STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure . Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects. Acute Tox. 3: H301+H311 - Toxic if swallowed or in contact with skin Skin Corr. 1C: H314 - Causes severe skin burns and eye damage. Skin Sens. 1: H317 - May cause an allergic skin reaction. Acute Tox. 1: H330 - Fatal if inhaled. Aquatic Acute 1: H400 - Very toxic to aquatic life. Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.</p>
Further information	<p>The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. 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 other process.</p>