

**Safety Data Sheet  
according to 1907/2006/EC**

Ref: HSD/E37

Issue No: 9

Date of Issue: 4<sup>th</sup> February, 2013

**1. Product and Company Identification**

**Product Name:** EPICON FAST SET MORTAR

**Intended Uses:** Three component fast-setting epoxide resin repair mortar.

**Manufacturer:** UNIVERSAL SEALANTS (UK) LIMITED  
Kingston House, 3 Walton Road, Pattinson North,  
Washington, Tyne & Wear. NE38 8QA, United Kingdom

**Tel:** +44 (0) 191 416 1530      **Fax:** +44 (0) 191 415 4377      **Email:** info@usluk.com

**24 Hour Emergency Tel:** CHEMTREC +1 703 527 3887

**2. Hazard Identification**

**Possible Hazards:**

**Base:**

- R36/38: Irritating to eyes and skin.  
R43: May cause sensitisation by skin contact.  
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Hardener:**

- R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.  
R34: Causes burns.  
R43: May cause sensitisation 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.  
R63: Possible risk of harm to the unborn child.

**Aggregate:**

Not classified as hazardous. The low level of crystalline silica is unlikely to present a hazard during normal conditions of use.

**3. Composition / Information on Ingredients**

Name	CAS No	EINECS	Conc. (w/w)	Classification	R. Phrases
<b>BASE COMPONENT</b>					
Bisphenol A/F epoxy					
Resin	40216-08-8	609-794-9	>95%	Xi,N	36/38,43,51/53
Alkylglycidylether	68081-84-5	268-358-2	<5%	Xi,N	36/38,43,51/53
Titanium Dioxide	1317-80-2	215-282-2	<5%	None	None
<b>HARDENER COMPONENT</b>					
Mixed Aliphatic amines					
	N/A	N/A	>50%	C,N	20/21/22,34,43,50/53,62,63
Benzyl Alcohol	100-51-6	202-859-9	<50%	Xn	20/22
<b>AGGREGATE COMPONENT</b>					
Quartz Grits					
	N/A	N/A	100%	None	None
Crystalline Silica					
	N/A	N/A	Trace	Xn	20,48

**4. First Aid Measures**

**Inhalation:** In case of drowsiness or sickness remove to fresh air, keep patient warm and at rest. If unconscious, turn to the recovery position. Seek medical assistance.

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**Skin Contact:** Promptly remove contaminated clothing and wash the affected area with plenty of soap and water to ensure all traces of product are removed, then rinse thoroughly. Any contaminated clothing must be thoroughly cleaned before re-using. Seek medical advice if irritation persists.

**Eye Contact:** Flush with copious amounts of clean water for at least 15 minutes, with the eye lids held open. Seek medical attention.

**Ingestion:** Wash out mouth with water. Keep patient at rest and obtain medical attention. DO NOT INDUCE VOMITING.

**5. Fire Fighting Measures**

**Suitable Extinguisher Media:** Water spray, alcohol-resistant foam, dry powder, carbon dioxide or sand.

**Unsuitable Extinguishing Media:** Water jet.

**Exposure Hazards:** May give off toxic fumes if heated or involved in a fire, including CO.

**Special Protective Equipment:** In the event of fire wear self-contained breathing apparatus.

**6. Accidental Release Measures**

**Personal Precautions:** Wear protective equipment as specified in Section 8. Do not eat, drink or smoke. Avoid contact with skin and eyes. Eliminate all ignition sources.

**Environmental Precautions:** Keep people and animals away. Prevent entry into drains, sewers and watercourses. If spillage enters drains leading to sewerage works inform the local water company. If spillage enters rivers or watercourses inform the Environment Agency.

**Spillages:** Cordon off area. Absorb/contain spillage using inert absorbent granules, sand or earth. Transfer collected material to heavy-duty plastic/steel drums and keep in a well ventilated place for subsequent safe disposal. See Section 13.

**7. Handling and Storage**

**Handling:** No specific precautions required when handling unopened containers; follow any relevant manual handling guidance. Refer to Sections 6 and 8 if exposure to product is possible. Wash thoroughly with soap and water before eating, drinking or smoking, and after work

**Storage:** Store in original containers in a well ventilated area away from heat, ignition sources or open flame. Do not store near acids.

**8. Exposure Controls / Personal Protection**

**Occupational Exposure Standards:** Benzyl Alcohol: TLV 5ppm (recommended).

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2,2'-Iminodiethylamine: 8 hour TWA 1ppm WEL (Skin).

While the hardener component contains the above materials, which have Workplace Exposure Limits assigned to them, it is very unlikely that these limits would be reached under foreseeable conditions of use.

Crystalline Silica - 8 hour TWA 0.3mg/m<sup>3</sup> (respirable) WEL.

This exposure limit must not be exceeded at any time during the exposure period.

Titanium Dioxide/General dusts: 8 hour TWA 10mg/m<sup>3</sup> (total inhalable), 4mg/m<sup>3</sup> (respirable) WEL.

While the base component contains Titanium Dioxide and General Dusts, which have Occupational Exposure Standards assigned to them, these materials are not present in powder form and therefore do not present an inhalation hazard.

**Engineering Control Measures:**

Refer to any applicable COSHH assessments. Engineering controls should be used where practicable in preference to personal protection and may include physical containment and good ventilation.

**Respiratory Protection:**

An approved respirator and filter medium for dusts should be used if engineering controls are unlikely to control exposure below the relevant exposure standards when handling the aggregate component. In the unlikely event that the quoted exposure limits for benzyl alcohol or diethylenetriamine are exceeded, an approved respirator fitted with an appropriate gas cartridge (organic substance) should be used. All items must conform to EN149 and should be suitable for the levels of contamination present in the workplace.

**Hand Protection:**

Wear Neoprene, Nitrile, PVC or Natural Rubber gloves or gauntlets. These must be manufactured to EN374. The material breakthrough time should be stated by the glove manufacturer, and must be observed at all times.

**Eye Protection:**

If splashing is likely chemical resistant goggles should be worn.

**Body Protection:**

Wear suitable impervious, chemical resistant overalls.

**Foot Protection:**

Wear chemical resistant safety footwear.

**Hygiene Measures:**

Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and Chemical Properties**

<b>Appearance:</b>	Base: Light grey liquid	<b>Boiling Point:</b> (Base) (Hardener)	>200 °C 130°C
	Hardener: Amber liquid		
	Aggregate: Sand coloured		

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<b>Odour:</b>	Base: Mild	<b>Vapour Pressure @ 20°C:</b>	N/D
	Hardener: Amine-type		
	Aggregate: None		
<b>pH:</b>	N/D	<b>Evaporation Rate (Butyl Acetate = 1):</b>	N/A
<b>Flash Point:</b> (Base)	>100°C	<b>Flammable Limits in Air:</b>	<b>Upper:</b> N/D
(Hardener)	95°C		<b>Lower:</b> N/D
<b>Solubility:</b>	Insoluble in water	<b>Autoignition Temperature:</b>	N/D
<b>Flammability:</b>	Not Flammable		
<b>Specific Gravity:</b>	2.0 (Mixed)		

**10. Stability and Reactivity**

**Stability:** Stable under normal conditions (see Section 7).

**Materials to Avoid:** Base: Amines and catalysts  
Hardener: Mineral and organic acids, oxidising agents, reactive metals and sodium or calcium hypochlorite. Slowly corrodes copper, aluminium, zinc and galvanised surfaces. Reacts violently with peroxides possibly creating an explosion. Reaction with acids is accompanied by large heat release and may be sufficient to cause vigorous boiling, creating a hazard due to splashing or splattering of hot material.

**Hazardous Decomposition Products:** Ammonia and aldehydes. Oxides of carbon and nitrogen. Nitrogen oxide can react with water vapours to form corrosive nitric acid. Other oxides of nitrogen emitted on decomposition are highly toxic.

**11. Toxicological Information**

There is no data available on the product itself.  
The following data applies to the Epoxy component of the Base material.

**Acute Toxicity:**

**Eye Contact:** Irritant.

**Skin Contact:** Irritant for skin and mucous membranes. May cause sensitisation.

**Ingestion:** May result in irritation to the gastro intestinal tract.

The following data applies to the Amine components of the Hardener material.

**2,2'-Iminodiethylamine:**

**Oral:** LD50 (rat), 819-2600 mg/kg  
**Dermal:** LD50 (rabbit), 670-1240 mg/kg  
**Inhalative:** LC50/4 hr (rat), 0.07-0.25 mg/l

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**Benzyl Alcohol:**

**Oral:** LD50 (rat), 1230 mg/kg  
**Dermal:** LD50 (rabbit), 2000 mg/kg  
**Inhalative:** LC50/4 hr (rat), 4178 mg/l

**Bisphenol A:**

**Oral:** LD50 (rat), 3250 mg/kg  
**Dermal:** LD50 (rabbit), 3000 mg/kg  
**Inhalative:** LC50/4 hr (rat), >5 mg/l

**Primary Irritant Effect:**

**Eye Contact:** Strong caustic effect.  
**Skin Contact:** Caustic effect on skin and mucous membranes. May cause sensitisation.  
**Ingestion:** Swallowing will lead to a strong caustic effect on the mouth and throat, and to the danger of perforation of the esophagus and stomach.  
**Reproductive Effects:** There is a possible risk of impaired fertility and a possible risk of harm to the unborn child.

No specific data is available on the materials within the aggregate component.

**12. Ecological Information**

There is no data available on the product itself.  
The following data applies to un-mixed material only, as once the base and hardener are combined the harmful constituents will react to form an inert product.  
Hazardous for water. Do not allow the product to reach ground water, water bodies or sewage systems. Must not reach sewage water or drainage ditch undiluted or unneutralised. Danger to drinking water if even small quantities leak into soil.

**13. Disposal Considerations**

Un-reacted materials: Dispose of used containers and un-reacted product as hazardous waste, in accordance with all applicable local and national regulations, and in compliance with the Environmental Protection (Duty of Care) Regulations 1991.

**14. Transport Information**

**Base:**

UN Number:	3082	Packaging Group:	III
<b>ROAD</b>		<b>AIR</b>	
ADR Class:	Limited quantity	Air Transport Number:	9
ADR Hazard No:	in compliance with chapter 3.4 LQ7 less than 5 litres per inner package	Packaging Instruction:	964

**SEA**

IMDG Class: 9  
EMS: F-A, S-F  
Marine Pollutant: P  
Proper Shipping Name: Environmentally hazardous substance, liquid, NO.S. (contains epoxy resin)

**Hardener:**

UN Number:	2735	Packaging Group:	III
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**ROAD**

ADR Class: Limited quantity  
ADR Hazard No: in compliance with  
chapter 3.4 LQ19  
less than 3 litre per  
inner package

**AIR**

Air Transport Number: 8  
Packaging Instruction: 856 (Cargo only)  
852

**SEA**

IMDG Class: 8  
EMS : F-A, S-B  
Marine Pollutant: P  
Proper Shipping Name: Amines, liquid, corrosive, N.O.S. (Contains mixed aliphatic amines).

**15. Regulatory Information**

**EU Classification and Labelling Particulars:**

**Base:**

**Designated Name:** EPICON FAST SET MORTAR - BASE

**Classification:** Irritant & Dangerous for the Environment

**Indication(s) of Danger:** Xi & N

**Contains:** Epoxy constituents- see information supplied by the manufacturer.

**Risk and Safety Phrases:**

R36/38: Irritating to eyes and skin.  
R43: May cause sensitisation by skin contact.  
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
S25: Avoid contact with eyes.  
S28: After contact with skin, wash immediately with plenty of soap and water.  
S37/39: Wear suitable gloves and eye/face protection.  
S61: Avoid release to the environment. Refer to special instructions/ Safety Data sheet.

**Hardener:**

**Designated Name:** EPICON FAST SET MORTAR - HARDENER

**Classification:** Corrosive & Dangerous for the Environment

**Indication(s) of Danger:** C & N

**Contains:** Mixed aliphatic amines & benzyl alcohol

**Risk and Safety Phrases:**

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.  
R34: Causes burns.  
R43: May cause sensitisation 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.  
R63: Possible risk of harm to the unborn child.

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- S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
- S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).
- S61: Avoid release to the environment. Refer to special instructions/Safety Data Sheet.

**Aggregate:**

**Designated Name:** EPICON FAST SET MORTAR - AGGREGATE

**Classification:** Not classified as hazardous

**Indication(s) of Danger:** N/A

**UK Guidance Publications:** EH40; Occupational Exposure Limits, HSE. Revised annually.  
EH26; Occupational Skin Diseases - Health and Safety Precautions, HSE.  
EH44; Dust in the Workplace: General Principles of Protection, HSE.  
MDHS 14; Methods for the Determination of Respirable and Total Dusts, HSE.  
COSHH Essentials, HSE

**UK Legislation:** Health and Safety at Work, etc Act, 1974, and relevant Statutory Provisions.  
Control of Substances Hazardous to Health Regulations, 1999.  
The Manual Handling Operations Regulations, 1992.  
The Personal Protective Equipment at Work Regulations, 1992.  
Chemicals (Hazard Information and Packaging for Supply) Regulations, 2002 - CHIP 3.

<b>16. Other Information</b>
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**Full Text of R-Phrases Referred to above:**

- R20: Harmful by inhalation.  
R21: Harmful in contact with skin.  
R22: Harmful if swallowed.  
R34: Causes burns.  
R36/38: Irritating to eyes and skin.  
R43: May cause sensitisation by skin contact.  
R48: Danger of serious damage to health by prolonged exposure.  
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R51: Toxic to aquatic organisms.  
R62: Possible risk of impaired fertility.  
R63: Possible risk of harm to the unborn child.

**Training Advice:** Do not use unless trained to do so. Refer to the Technical Data Sheet for the product.

**Recommended Uses:** For professional use only. This product is designed for use as a fast-curing, heavy duty epoxide mortar.

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**Further Information:** This Safety Data Sheet was compiled in accordance with EU Directives 67/548/EEC and 1999/45/EC. The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark. ESES (The European Chemical Substances Information System), provided by the European Commission Joint Research Centre in Ispra, Italy. Reference was also made to the above legislation and guidance publications.

**MSDS First Issued:** 8<sup>th</sup> September, 1989.

**MSDS Revised:** 4<sup>th</sup> February, 2013.

**Changes in this Version:** Sections 8 & 11 revised to reflect change in raw material classification.

**Prepared By:** F. Stratton

**Disclaimer:** The information in this document is offered for general health and safety guidance only and is not intended to be a definitive source of advice, nor does it constitute a risk assessment, for which the user is responsible. All information provided in this document is believed to be accurate to the best of our knowledge. Users of the products referred to should observe the recommendations, conditions and instructions relating to any relevant product label, usage information, consent or approval in force at the time. Further and more specific information may be obtained from the supplier on request.