

Product Health & Safety Data Sheet (COSHH)

1. Identification of Products

- a) Precast concrete products, typically fence posts, gravel boards, copings, caps and street furniture.
- b) Pre-stressed concrete lintels and floor T-beams

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(Head Office)

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Factory locations at: Bedford, Peterborough, Evesham, Telford and Sittingbourne.

2. Application

a) Precast concrete products are manufactured for the construction of structures, walls, and fenced areas in accordance with any relevant standards and local codes of practice.

b) Employed within the building industry, pre-stressed lintels are used over structural openings and pre-stressed floor T-beams are used for suspended ground/ upper floors in housing and other construction projects.

3. Composition

Concrete products are manufactured by compacting a mixture of aggregates, cement and water into a mould to produce the required shape and strength. Some products may contain steel reinforcing. Admixtures may be added to improve production techniques or the properties of the finished product. Pigments may be added to colour the product as required.

4. Hazard Identification

- Hardened concrete products are inert and inherently non hazardous to health.
- Cutting and surface treatment can create dust and flying fragments. The dust generated could contain particles of respirable size which may contain silica.
- Such dust, if inhaled in excessive quantities over extended periods can constitute a long-term health hazard.
- Edges and surfaces may be sharp and can cause cuts and abrasions. Surface dust could cause minor skin irritations. Industrial gloves should be worn when handling. (Refer to Section 9 - Exposure controls/ personal protection.)
- Concrete products are generally heavy (dependant on size and density). Incorrect lifting procedures can result in injury.
- Removal of product/pack strapping may spring away from the pack when cut with consequent risk of injury to head, face, hands, etc.
- Improper handling of packs of Precast/ pre-stressed concrete products may result in products falling from the pack with a consequent risk of injury.

5. First Aid Measures

- Airborne dust:
 - Inhalation - Removal from exposure to fresh air
 - Skin contact - Wash thoroughly with clean water
 - Eye contact - Irrigate immediately with copious amounts of clean water and seek medical attention.
 - Ingestion - Remove from exposure to fresh air. Wash out mouth and drink plenty of water. DO NOT INDUCE VOMITING! Seek medical attention if large amounts are swallowed.
- Cuts, abrasions, etc. - Accidents where products strike or crush parts of the body should be treated using normal First Aid procedures.

In all cases of doubt, or where symptoms persist, medical advice should be obtained.

6. Fire Fighting Measures

Precast/ pre-stressed concrete products will not support combustion.

Burning of polythene wrapping is accompanied by the release of flaming molten droplets which can spread a fire. Packaging material fires may be extinguished by cooling with water spray provided the fire is limited to the packaging materials (wooden pallets/bearers, plastic strapping/wrapping).

7. Accidental Release Measures

- Personal protection - Where dust is created, avoid breathing in the dust. Wear dust mask/respirator and goggles as specified in Section 9 -Exposure controls/ personal protection.
- Environment measures - The release of dust into the atmosphere does not constitute a significant hazard. Waste material should be disposed of in accordance with local authority requirements.

8. Handling & Storage

When dust may be created:

Surface treatment and cutting should be minimised to avoid the creation of airborne dust.

Where this is not avoidable, engineering controls such as containment or local exhaust ventilation should be applied when airborne exposure levels are approached.

Products as delivered:

- i. Precast/ pre-stressed concrete product packs are either banded with strapping or covered with a shrink-wrapped polythene hood, or use a combination of the two. Products are usually packaged on wooden pallets or bearers.
- ii. Packaging is only designed to allow safe delivery of the products to site. If packs are to be moved on site, care must be taken to ensure the integrity of the pack prior to and during moving.

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Products as delivered (Cont'd):

- iii. The preferred method of off-loading from vehicles is by mechanical means, ensuring all lifting equipment and vehicles are capable of lifting the packs and are within their safe working capacities. Care should be taken when placing packs into position to avoid banging or dropping of packs. Pack weights can vary up to 2400kg (approximately). Under no circumstances should any personnel stand under or near the pack during lifting.
- iv. Off-load and store packs on hard level surfaces and not on slopes or soft ground.
- v. Where lifting points are provided, the lifting points must be used.
- vi. Where lifting points are not provided, then suitable canvas/ fabric slings should be used around the product.
- vii. Care should be taken when breaking down the packs either on the delivery vehicle or on site.
- viii. When removing banding and wrapping around packs, use the appropriate cutting tools and wear eye protection. Before removing banding and wrapping, ensure that the products are safe and will not fall over.
- ix. Where individual products are handled manually, personal injury due to strains or ruptures should be avoided if the requirements of the *Manual Handling Operations Regulations 1992* (as amended) are implemented.

9. Exposure Controls/ Personal Protection

Occupational exposure limits:

Personal exposure to airborne dust should be controlled to the minimum that is reasonably practicable. Avoid ingestion whenever possible.

	8 hr TWA	WEL (8 hr TWA)
Total inhalable dust	10mg/ m ³	/
Respirable dust	4mg/ m ³	/
Respirable silica (crystalline)	/	0.1mg/ m ³

TWA: Time Weighted Average

WEL: Workplace Exposure Limit

Personal Protection:

- Respiratory protection: to HSE approved standard
- Hand protection: abrasion resistant gloves
- Eye protection: to HSE approved standard for dust goggles
- Skin protection: overalls
- Foot protection: to BSEN 345 safety footwear
- Head protection: Suitable head protection should be worn where there is a risk of products falling from height.

10. Physical & Chemical Properties

Precast/ pre-stressed concrete products are dense, heavy, hard and abrasive products, which are chemically inert apart from some harmless soluble salts that may appear for a short period on the face of the products.

11. Stability & Reactivity

Not applicable.

12. Toxicological Information

Airborne dust health effects:

- On eyes: May cause transient irritation
- On skin: Unlikely to cause harm on brief or occasional contact.
- By inhalation: Inhalation of large quantities of respirable silica may lead to progressive lung damage. This may cause permanent disability and, in extreme cases, may be fatal.
- By ingestion: Unlikely to cause harm.
- Chronic: Exposure to high levels of silica may cause silicosis.

Precast/ pre-stressed concrete products will not give off any toxic fumes if subjected to heat or fire. Toxic gases and irritating smoke may form on combustion of polythene packaging or timber pallets/ bearers.

13. Ecological Information

Environmental assessment: When used and disposed of as intended, no adverse environmental effects are foreseen.

14. Transport Information

Precast/ pre-stressed products and their associated packaging materials are not subject to hazardous substance conveyance regulations and vehicle labelling is not required. Good safe transport loading and tying down practises should be employed.

Correct lifting practices should always be employed, especially on larger products.

15. Regulatory Information

Hazard label data:

Precast/ pre-stressed products are not classified as dangerous for supply in the UK.

Statutory instruments:

Health & Safety at Work Act 1974

Control of Substances Hazardous to Health (COSHH) 2002

Consumer Protection Act 1987

Manual Handling Operations Regulations 1992 (as amended)

The Personal Protective Equipment at Work Regulations 1992 (as amended)

Guidance Notes:

HSE Guidance Note EH44 – Dust, General Principles of Protection

HSE Guidance Note EH40 – Workplace Exposure Limits

16. Other Information

The data and advice given above apply when the products are used as intended.

If the products are re-distributed for sale, details of their hazards and recommendations for safe handling should be passed to all customers.

If you are an employer, it is your duty to tell your employees and others who may be affected of any hazards described in this sheet, and of any precautions which should be taken.

Information on Safety and Handling is continuously being updated and further advice, as it becomes available, can be given on request.

17. Legal Notice

The information contained in this Safety Data Sheet was considered the best available at the date of issue. However, no warranty is made or implied that the information is accurate or complete. It is the user's obligation to evaluate and use these products safely and to comply with all the applicable laws and regulations.