

## Health and Safety Data Sheet for Corrugated Board

### 1. Constituents

- 1.1. The main constituent of corrugated fibreboard is paper that forms the facings and the corrugated centre of the board. Definitions of the types, sources and characteristics of paper materials in use within the industry are given in the CPI Technical Bulletin No 5: "Fibrous Materials Used in Fibreboard Manufacture".
- 1.2. In converting paperboard into corrugated packaging, there are three basic components added to the paperboard.
  - 1.2.1. Corrugator Adhesive - which is starch and water with very small quantities of caustic soda and borax. The starch will usually be from maize (corn) or wheat. The caustic and borax together normally constitute less than 0.015% of the total board weight.
  - 1.2.2. Flexographic Ink - which is predominantly water based in the corrugated board industry, and normally added at a level of less than 5% of the total board weight. Inks consist of pigments, (usually ground natural minerals or oil based compounds) and resin binders. No heavy metals or dangerous solvents are used in modern corrugated flexographic inks.
  - 1.2.3. Flange Adhesive - which is applied at less than 0.1% of the total board weight, and comprises a water-based emulsion of Polyvinyl Acetate.
- 1.3. There are further components used in some corrugated products. It is unlikely that these will constitute more than 3% of the product by weight.
  - 1.3.1. Polythene films, usually comprising either polyethylene or polypropylene.

- 1.3.2. Acrylic polymer coatings.
- 1.3.3. Metal stitches (or staples).
- 1.3.4. Tear tapes.
- 1.3.5. Hot melt sealing adhesive.
- 1.3.6. Plastic fittings.

### 2. Hazards

- 2.1. Corrugated board is flammable with a combustion temperature of 233°C. Paper fires may be extinguished with water if there are no other hazards that prohibit the use of water.
- 2.2. Corrugated board is not known to present any toxicological hazard.
- 2.3. The heavy metals content of paperboard is very low and well within limits permitted under the European legislation: "The Packaging (Essential Requirements) Regulations SI 1998 No 1165". (See also the CPI Technical Bulletin No 2 for details).
- 2.4. Care should be taken when handling corrugated board by its edges to avoid paper cuts. The use of gloves is recommended when handling board.
- 2.5. Machines running corrugated board products should be cleaned regularly to avoid the build up of paper dust.
- 2.6. Corrugated board is generally suitable for food packaging. However, when the packaging is in direct contact with foodstuffs, advice should be sought from the manufacturer. (See also the CPI Technical Bulletin No 3 For Further Guidance).

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### **3. Disposal**

- 3.1. Corrugated board may be disposed of safely by recycling, incineration for energy recovery or composting.

#### **Source of Documents**

##### **The BRC/IOP Standard**

"BRC/IOP Global Standard; Food Packaging and Other Packaging Materials", published by The Stationery Office and available from:

##### **The Stationery Office**

PO Box 29, Norwich, NR3 1GN

Tel; 0870 600 5522

Fax; 0870 600 5533

Websites; [www.clicktso.com](http://www.clicktso.com); [www.thestationeryoffice.com](http://www.thestationeryoffice.com).

A useful source of information on the topic is:

"Good Hygiene Practice. A handbook for managers", published by ADAS and available from:

##### **ADAS**

Wergs Road, Wolverhampton, WV6 8TQ

Tel; 01902 754190

Website; [www.adas.co.uk](http://www.adas.co.uk).