



## Priorities for health and safety in the cocoa, chocolate and sugar confectionery industries

### Food Sheet No 9

#### Introduction

This sheet has important information for employers and employees in the cocoa, chocolate and sugar confectionery industries. Your attention will be drawn to the aspects of the working environment which deserve special attention. The information in this sheet is based on an analysis of the accidents which have been reported to HSE and local authorities by employers. The information is also based on HSE investigations. You should assess all the aspects discussed in this sheet carefully to make sure that adequate precautions are in place, and that they are in place permanently. Usually, once a risk is identified, it will be clear what the appropriate precaution is. If you need further guidance on a particular topic, please refer to the section Useful information.

#### The priorities

Table 1 lists the causes of accidents, in order of priority. It also outlines the aspects of the working environment and equipment involved. From the information in the table, it is important to focus on the following, as they cause 60% of all injuries:

- (a) slips and trips;
- (b) manual handling of heavy loads;
- (c) falls from stairs;
- (d) machinery, especially conveyors and work involving maintenance and the freeing of blockages on other machinery;
- (e) fork lift truck safety;
- (f) hand dispensing of caustic cleaners;
- (g) carrying open topped containers of hot product.

#### Occupational ill health

Because the reports do not include occupational ill health, the tables only cover safety. But experience of the industry suggests occupational ill health priorities are likely to be:

- (a) chronic ill health from manual handling;
- (b) work-related upper limb disorders associated with packaging.

#### The risks compared with other industries

In 1991-92 the overall incidence rates, that is the number of injuries per 100 000 employees, for the cocoa, chocolate and sugar confectionery industry were 148 for major injuries and 2237 for injuries causing over a three day absence (O3D), totalling 2385 overall. This means the industry has one of the best rates in the food industry, but the incidence rate is still almost twice the average for the manufacturing industry as a whole, which totals 1269 overall. The industry has reported three fatal injuries since 1988.

#### Scope of this guidance

This guidance uses reports from employers whose main activity is coded to Standard Industrial Classification (1980) 4214. This covers chocolate and chocolate confectionery manufacturing, cocoa bean roasting, cocoa butter manufacture, drinking chocolate manufacture, boiled sugar confectionery manufacture and other sugar confectionery such as liquorice, toffee and Turkish delight.

The figures used are from 1991-92, the last year for which detailed incidence rates are available. But these are typical of recent years for which the overall rate has stayed fairly consistent, varying only by 10 per cent in 1990-95. The analysis covered only injuries reported to employees on and off site. Visitors, contractors and the self-employed were excluded.

#### Safety checklist

This checklist covers the most common situations which cause accidents, together with a list of preventative measures.

#### Handling

- (a) avoid heavy or sharp lifting and pulling movements;
- (b) where it is not reasonably practicable to mechanise handling, eliminate the handling if possible or assess the factors leading to a risk and take the appropriate precaution.

#### Slips

- (a) avoid spillage and leakages to floor;
- (b) contain unavoidable spillages so they do not contaminate the floor;

**Table 1**

<i>Kind of accident</i>	<i>Relative importance</i>	<i>Significant factors</i>
Handling	30% of all reported injuries and only 1% of major injuries.	44% of injuries were from loads which were too heavy and 20% from loads which were sharp.
Slips and trips	22% of all injuries but 33% of major injuries.	47% were slips and 26% were trips (with tripping over obstructions being three times as common as over uneven surfaces).
Struck by moving objects	12% of all injuries. 9% of major injuries.	46% by moving articles and 5% from use of hand tools.
Struck against objects	9% of all injuries.	52% fixed objects and 27% moveable ones.
Machinery	8% of all injuries but 19% of major ones.	27% involved conveyors. Investigations reveal that 60% of accidents occur during cleaning or clearing blockages.
Exposure to harmful substances	6% of all injuries but 2% of major ones.	Investigations show that manual dispensing of caustic cleaners and carrying of open containers of hot product are often involved in accidents.
Falls	6% of all injuries but 17% of major ones.	51% involved stairs. The rest involved ladders, vehicles, work platforms etc.
Transport	3% of all injuries. 4% of majors.	25% of all accidents involve fork lift trucks, including one fatal.

- (c) clear up spillages and dry the floor immediately;
- (d) clean effectively, preferably out of hours;
- (e) dry floors after cleaning.

***Trips***

- (a) avoid obstructions in walkways and at work stations;
- (b) avoid uneven floors.

***Struck by moving object***

- (a) use secure, accessible storage for materials and products;
- (b) use appropriate methods of handling goods;
- (c) select appropriate hand tools and train employees in their use and maintenance.

***Striking against objects***

- (a) avoid crowded conditions.

***Machinery***

- (a) check guarding and hazards, especially at conveyors and packaging machinery;
- (b) see machinery can be set, maintained, fed, and blockages cleared and cleaned, with guarding in place or with machine isolated and stationary.

***Exposure to harmful substances***

- (a) assess how risk arises and can be controlled;
- (b) use safe systems for handling cleaning substances;
- (c) make sure personal protective equipment is used correctly.

***Falls***

- (a) identify all areas where access is likely to be needed and arrange safe access;
- (b) check the condition of stairs and maintain them free of slipping risks and with adequate handrails;

(c) use a safe system of work when ladders are used.

### **Transport**

(a) select and train fork lift truck operators.

### **Useful information**

1 *Essentials of health and safety at work* 1994 HSE Books ISBN 0 7176 0716 X

2 *An index to health and safety guidance for the food industry* FIS7 1996 HSE Books. This gives an index to most of the guidance appropriate for the food industry and covers particular risks such as transport, handling machinery

3 *A recipe for safety: Health and safety in the food industry* TOP 05 1994 HSE Books ISBN 0 7176 0911 1 (available in priced packs of five)

4 *Workplace transport safety, guidance for employers* HS(G)136 1995 HSE Books ISBN 0 7176 0945 9

5 *Safe handling of combustible dusts precautions against explosions* HS(G)103 1994 HSE Books ISBN 0 7176 0725 9

6 *Dust explosions in the food industry* FIS2 1996 HSE Books

7 *Health and safety in retail and wholesale warehouses* HS(G)76 1992 HSE Books ISBN 0 11 885731 2

8 *Manual handling: Solutions you can handle* HS(G)115 1994 HSE Books ISBN 0 7176 0693 7

9 *Slips and trips: guidance for the food industry* HS(G)156 1996 HSE Books ISBN 0 7176 0832 8

10 *Safety in working with lift trucks* HS(G)6(rev) 1993 HSE Books ISBN 0 11 886395 9

11 *Rider operated lift trucks - operator training Code of Practice* COP 26 1988 HSE Books ISBN 0 7176 0474 8

12 *Work related upper limb disorders - A guide to prevention* HS(G)60 1990 HSE Books ISBN 0 7176 0475 6

13 *Upper limb disorders: Assessing the risks* IND(G)171(L) 1996 (free leaflet) HSE

14 *A pain in your workplace? Ergonomic problems and solutions* HS(G)121 1994 HSE Books ISBN 0 7176 0668 6

15 *Safe use of ladders, step ladders and trestles* GS31 1984 HSE Books ISBN 0 7176 1023 3

16 *A step by step guide to COSHH assessment* HS(G)97 1993 HSE Books ISBN 0 11 886379 7

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For other enquiries ring HSE's InfoLine Tel: 0541 545500, or write to HSE's Information Centre, Broad Lane, Sheffield S3 7HQ.

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