

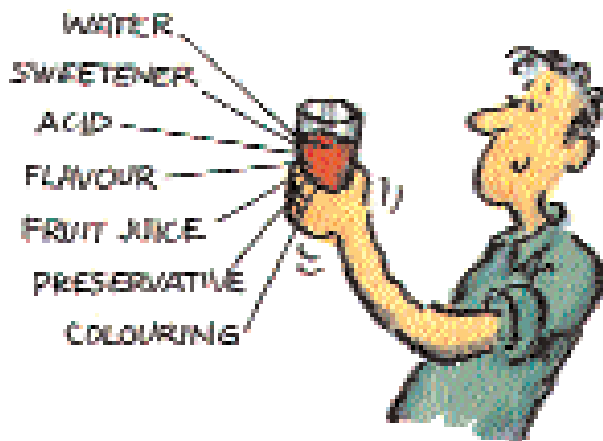
Still and Dilutable Drinks

1. WHAT ARE STILL AND DILUTABLE DRINKS?

- Still and dilutable drinks are categorised as: 'non-alcoholic water based flavoured drinks' or 'manufactured drinks, optionally sweetened or acidulated and which may contain fruit, fruit juice and salts; flavour may be derived from vegetable extracts or flavourings'.

2. INGREDIENTS IN A STILL OR DILUTABLE DRINK

- Still and dilutable drinks are made from:
 - water (around 86% for still drinks and 65% for dilutables)
 - a sweetening agent
 - an acid
 - a flavouring



- They usually contain fruit, e.g. individual or blends of fruit juices or whole fruits.
- They may also contain:
 - preservatives
 - colouring

3. TYPES AND FLAVOURS OF STILL AND DILUTABLE DRINKS

3.1 Types

Dilutables

- A concentrated or dilutable drink is usually diluted with about four parts of water.
- Quantities of fruit juice and fruit content vary and this information is clearly stated on the label.



- This category of drinks is divided into three groups:
 - regular (products made with sugar)
 - low sugar (products made using low calorie sweeteners – the sugar comes from the juice or fruit itself)
 - high juice (products containing high fruit juice contents)



Fruit drinks, juice drinks, dilutable drinks or ready to serve

- These drinks contain less than 100% fruit content.
- They are grouped by the amount of juice they contain: 0–5% juice, 5–25% juice and 25–99% juice.

Nectars

- Products known as nectars have their fruit content controlled by legislation.
- Fruit content varies depending upon the fruit. Citrus nectars must contain 50% juice, blackcurrant and others have around 25%.
- Nectars provide a close alternative to pure fruit juices. Many juices are not suitable for 'pure' consumption and a nectar is an ideal way of presenting these products, e.g. mango or mixtures of several juices.
- These products have not achieved great popularity in the UK but hold significant market shares elsewhere in Europe.



Sports drinks

- Formulated in order to supply the fluid quickly and to maintain the body's blood glucose levels.
- Many are isotonic, i.e. in balance with the body's own fluid, containing the same quantity of dissolved solids as the blood.
- They contain low amounts of sugar, as high amounts reduce the body's ability to absorb fluid quickly.



3.2 Flavours

Dilutables

- Orange is the most popular flavour followed by blends and blackcurrant.
- Low calorie products are the most popular.

Fruit drinks, juice drinks, still drinks or ready to serve

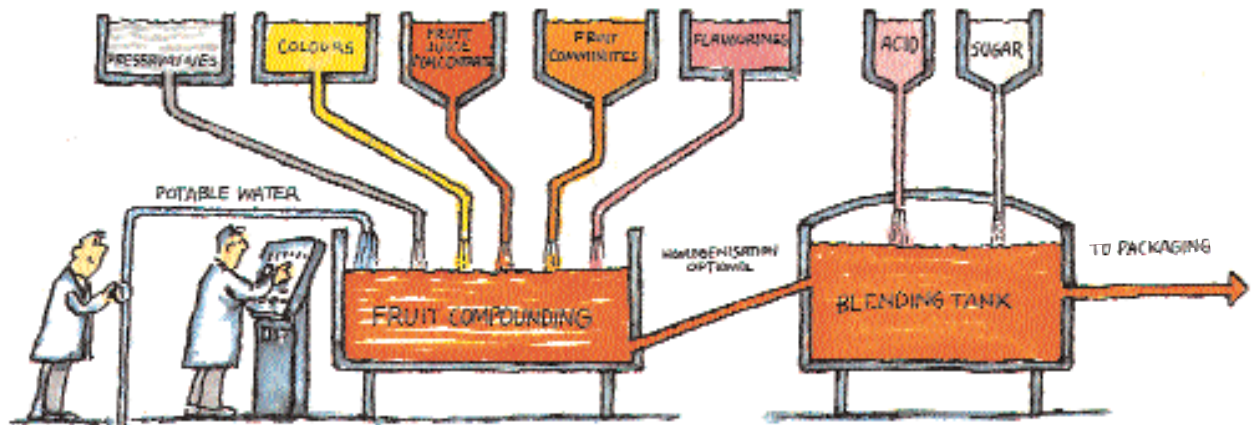
- The most popular flavours are blends, orange and blackcurrant.
- The majority of these drinks contain between 5 and 25% juice. However, high juice content drinks, i.e. 25–99% juice remain popular.

4. FOOD VALUE OF STILL AND DILUTABLE DRINKS

- Still and dilutables contain various amounts of carbohydrate, minerals and vitamins and negligible amounts of fat and protein.
- The amount of sugar in these drinks is about the same as in many fruit juices, if sugar is used.
- Sugar is a source of energy for your body. Like all carbohydrates, sugar has 4 kcal per gram compared to 9 kcal per gram for fat.
- Sodium, calcium and magnesium come mainly from the major ingredient – water.
- Potassium and phosphate come from any fruit materials the drinks contain.
- The sodium content of water can vary from season to season and in different parts of the country.
- On average still and dilutable drinks are low in sodium and contain less than 20 milligrams per 200 ml serving.
- Sports rehydration drinks may contain about 100 mg of sodium per 200 ml serving.
- Still and dilutable drinks also provide a good medium for vitamin fortification.
- They are often good sources of Vitamin C, largely obtained from any fruits used to produce the drinks.
- Vitamin A may also be present.



5. HOW STILL AND DILUTABLE DRINKS ARE MADE



The nutrition content of a typical still drink

NUTRITION INFORMATION			
TYPICAL VALUES	PER 100 ml	PER 288 ml CARTON	
ENERGY, kJ/kcal	242 / 57	697 / 164	
PROTEIN, g	TRACE	TRACE	
CARBOHYDRATE, g	14.0	40.3	
FAT, g	NIL	NIL	
		% RDA	% RDA
VITAMIN C, mg	24	40	69 115

The nutrition content of a typical dilutable drink

NUTRITION INFORMATION 100 ml of diluted product contains:	
ENERGY	128 kJ (30 kcals)
PROTEIN	Trace
CARBOHYDRATE	7.4 g
FAT	Trace
VITAMIN C	5.7 mg

Contains Vitamin C – one 30 ml (undiluted) serving contains 17% of the recommended daily intake. This bottle contains 24 servings.

6. PACKAGING STILL AND DILUTABLE DRINKS

- Still and dilutable soft drinks may be packed in a variety of containers including:
 - glass bottles – both returnable and non-returnable
 - PET (polyethylene terephthalate) bottles
 - plastic cups (polystyrene/polyethylene)
 - cartons
 - foil pouches

7. SHELF-LIFE OF STILL AND DILUTABLE DRINKS

- The ingredients, packaging and processes used for still and dilutable drinks affect the shelf-life of the product.
- Still and dilutable drinks can have a shelf-life of between 6 and 12 months.
- All still drinks are ready to serve whilst dilutable drinks require diluting with water before being consumed. The amount of water required is stated on the label.

8. DISTRIBUTION

- Still and dilutable drinks are sold both in shops, cafés and restaurants
 - off-premise (e.g. supermarkets, newsagents) 93.8%
 - on-premise (e.g. pubs, restaurants, cafés) 6.2%



Wrapping Up



1. THE FUNCTION OF PACKAGING

- The functions of packaging are to:
 - A** Contain the correct quantity of product and prevent leakage.
 - B** Protect the product from contamination, the atmosphere and sunlight, pilferage (stealing) and damage. Protect the consumer from the product.



- E** Environment. Is the packaging returnable? Recyclable? Can we use recycled materials? How will it be disposed of?
- F** Cost. The cost of the package, package handling, equipment compatibility, line efficiency, secondary packaging, security, distribution efficiency, disposal or reclamation.

2. CHOOSING PACKAGING

- The type of packaging chosen for soft drinks is influenced by:
 - the type of drink.
 - how much of the product is to be consumed e.g. whether it needs to be resealed.
 - where it is to be sold.
 - the cost and final consumer price.
 - product identity and image.
- The form of packaging chosen must meet the functions of packaging, the various criteria affecting the product and the market, and consider the advantages and disadvantages of the various options.

- C** Identify the product to the distribution system, the retailer and consumer. Show the legally required information, e.g. contents, ingredients, hazards, date marking, and production information, e.g. plant, shift, batch.
- D** Sell the product to retailers, distribution and production (grouping types of products together), consumer acceptability.
- When selecting packaging we must also consider:



3. REUSE AND RECYCLING

To measure how packaging affects the environment and to prevent wastage of resources, it is important to consider:

- the life cycle of the pack
- how any raw materials are obtained from their natural source
- the energy used to produce the packaging
- the packaging production process
- filling of the pack
- transportation of goods to the retailers (e.g. shops, restaurants and supermarkets)
- the addition of transport packaging to enable safe transportation
- storage and distribution
- retailing
- consumer use
- disposal

Other considerations include:

- 'Lightweighting' – reducing the raw materials used in order to minimise environmental impact. This is usually considered during the design process.
- Reduction of household waste. Packaging makes up 3% of total solid waste in the UK.
- Reuse and recycling. Studies have shown that no single type of beverage container or method of distribution is more environmentally sound than any other.

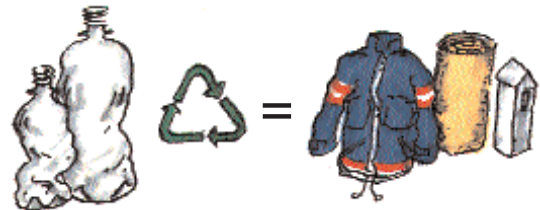
3.1 Recycling

All packaging used by the soft drinks industry can be recycled and is an excellent raw material with which to make other useful products. Therefore we all need to ensure that we recycle all the materials we can to save resources and money in producing future products. This is illustrated by the following examples:

- Aluminium and steel cans are recycled and used with raw material to produce new batches of cans.



- Plastic bottles can be used to make fleece textile products, fibre filling and street furniture.



- Glass bottles can be reused or recycled for use in the production of new batches of glass.



- Paper and board is recycled to produce tissue, paper bags, chip-board, briefcases and office furniture.



3.2 Reuse

- Refillable bottles – traditionally the main type of packaging used by the soft drinks industry. However, demand has reduced, with Scotland accounting for the majority now sold in the UK.
- Returnable bottles are heavier and stronger than non-refillables because they must withstand the process of washing, filling and transit a number of times. For example in the pub trade a bottle is reused on average 12 times.
- Reusable bottles remain popular with the pub and restaurant trade.

