Council Directive of 20 January 1976 on the approximation of the laws of the Member States relating to the making-up by weight or by volume of certain prepackaged products (76/211/EEC)

[F1 ANNEX II

Textual Amendments

F1 Substituted by Commission Directive of 28 September 1978 adapting to technical progress the Annexes to Council Directives 75/106/EEC and 76/211/EEC on prepackaging (78/891/EEC).

2. REQUIREMENTS FOR CHECKING BATCHES OF PREPACKAGES]

2.3. Checking of the average actual contents of the individual prepackages making up a batch

2.3.1. A batch of prepackages shall be considered acceptable for the purpose of this check if the mean value

$$\bar{x} = \frac{\sum x_i}{n}$$

of the actual contents x_i of n prepackages in a sample is greater than the value:

$$Q_n - \frac{s}{\sqrt{n}} \times t_{(1-\alpha)}$$

In this formula:

Q_n	=	the nominal quantity of the prepackage,
n	=	the number of prepackages in the sample for this check,
s	=	the estimated standard deviation of the actual contents of the batch,
$t_{(1 - \alpha)}$	=	0.995 confidence level of a Student distribution with ν = n — 1 degree of freedom.

2.3.2. If x_i is the measured value for the actual contents of the i-th item in the sample containing n items then:

2.3.2.1. the mean of the measured values for the sample is obtained by the following calculation:

$$\bar{x} = \frac{\sum_{i=1}^{i=n} x_i}{n}$$

2.3.2.2. and the estimated value of the standard deviation s by the following calculation:

— the sum of the squares of the measured values:

$$\sum_{i=1}^{i=n} (x_i)^2$$

— the square of the sum of the measured values:

$$\left(\sum_{i=1}^{i=n} x_i\right)^2$$

then

$$\frac{1}{n}\left(\sum_{i=1}^{i=n} x_i\right)^2$$

— the corrected sum

$$SC = \sum_{i=1}^{i=n} \frac{SC=\sum^{i=n}(x_i)^2-1}{n}\left(\sum_{i=1}^{i=n} x_i\right)^2$$

— the estimated variance:

$$v = \frac{SC}{n-1}$$

the estimated value of the standard deviation is:

$$s = \sqrt{v}$$

2.3.3. Criteria for acceptance or rejection of the batch of prepackages for checking the mean:

2.3.3.1. Criteria for non-destructive testing

Number in batch	**Number in sample**	**Criteria**	
		Acceptance	**Rejection**
100 to 500 (inclusive)	30	$\bar{x} \geq Q_n - 0.503s$	$\bar{x} < Q_n - 0.503s$
> 500	50	$\bar{x} \geq Q_n - 0.379s$	$\bar{x} < Q_n - 0.379s$

2.3.3.2. Criteria for destructive testing

Number in batch	**Number in sample**	**Criteria**	
		Acceptance	**Rejection**
Whatever the number (≥100)	20	$\bar{x} \geq Q_n - 0.640s$	$\bar{x} < Q_n - 0.640s$