

It is unlikely that the iodide should be present, as an impurity, on account of its higher value, and for other reasons. As a matter of fact, none of the samples now reported shows a lower titre than 102, except No. 33424, which contains ammonio-chloride of mercury, insoluble in water, and consequently not entering into reaction with the silver test.

The pharmacopoeia provides for traces of chloride as an impurity, and permits samples requiring as high as 103.6 cubic centimetres of the test solution to pass as satisfactory.

Assuming excess of test solution (above 102.2 cc) as due to admixture of ammonium chloride, the percentage of this substance present may be calculated from the following:—

If x = percentage ammonium chloride

$100 - x$ = " " bromide

Let a = cc. volumetric solution used per gramme sample

$$\frac{x}{.535} + \frac{100-x}{.98} = a$$

Whence, $x = 1.1782a - 120.23$

Taking $a = 103.6$, it thus appears that the British Pharmacopoeia permits as much as 1.83 per cent of ammonium chloride.

It will be seen, by consulting the appended table, that while a large number of the samples examined come very near to the B. P. Standard, not one sample quite reaches it, and a considerable number depart from it by notable amounts.

Chloride of ammonium is not a dangerous impurity, except in so far as it materially reduces the medicinal efficiency of the drug. The bromide is recognized as essentially a nerve sedative and depressant; while the chloride is a nerve stimulant. It is therefore evident that these substances tend to counteract each other. Moreover, the effective dose of chloride is smaller than that of the bromide; hence, the presence of relatively small percentages of the chloride is highly objectionable.

Since this is the first occasion upon which this drug has been subjected to inspection, it may be well to summarize the results of its examination, as below:—

PERCENTAGE OF PURITY.

District.	97 p.c.	96 p.c.	95 p.c.	94 p.c.	93 p.c.	92 p.c.	91 p.c.	90 p.c.	Total.
									Samples
Nova Scotia.....	5	2	1			1			9
Prince Edward Island.....	3	7							10
New Brunswick.....	2	1	1	1		2	1	1	9
Quebec.....	1	3	1	2		2	1		10
St. Hyacinthe.....	4	3					1		10
Montreal.....	3	6	1						10
Ottawa.....	3	7							10
Kingston.....	2	7				1			10
Toronto.....	2	5	1			1		1	10
London.....	2	6	1			1			10
Manitoba.....	3	3				2	2		10
Calgary.....	7	2	1						10
British Columbia.....	-	3	1			3	2	1	10
	37	55	10	3	0	13	7	3	128

This tabulation omits the two cases referred to above, where decided mistakes in dispensing occurred; in one case boracic acid being furnished; and in the other a bromide of ammonium highly contaminated with ammonio-chloride of mercury.

Expressed as percentages, we have the following:—