

IDENTIFICATION OF HOMOEOPATHIC INORGANIC DRUGS BY T.L.C.

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SUMMARY: Identification of some potassium salts in 6x potency was carried out by T.L.C.

INTRODUCTION

Inorganic drugs are official* in homoeopathic system of medicine. In absence of any official standard or specification and method of identification of these drugs, statutory quality control is a problem. The present paper describes a simple and rapid T.L.C. method for separation and identification of nineteen potassium salts in 6x potency.

EXPERIMENTAL AND METHODS

Commercial samples of nineteen different potassium preparations in 6x trituration and dilution were collected from various manufacturers in Calcutta. 0.005% aqueous solutions of these samples of potassium salts and of the preparations made in the laboratory from authentic standard drugs according to H.P.U.S.¹ were prepared for comparison.

20 ml of each market and control samples of potassium 6x dilution was concentrated to 1 ml; similarly 1g of each market and control samples of 6x trituration was dissolved in 20 ml of water, filtered and then concentrated to 1 ml.

0.01 ml quantity of each of these solutions was applied separately on silica gel G plate (250 mm thickness). The plate was run 10 cm from the point of application with the solvent mixture n-butanol: acetic acid (glacial): pyridine (8:1:1). After development the plate was dried and sprayed with 0.1% alcoholic solution of fluorescein. Finally the plate was kept in a chamber containing iodine for 2 min. Rf values and colour of spots after treatment with fluorescein and iodine are recorded in the Table.

The present study indicates that the market samples of potassium salts contain the constituents that are identical to those of control samples. All the triturations (both market and control samples) contain a spot at the base line which was due to the presence of sugar of milk. It is interesting to observe that some additional spots are present in the market samples which are perhaps due to the decomposition of the chemicals and consequent changes that usually happen in old stocks.

* Homoeopathic Pharmacopoeia of the U.S. Philadelphia: American Institute of Homoeopathy (1964).

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TABLE

Potassium compound	REX100	Colour	Additional spots, Rf & colour
Kali aceticum	10	p	
Kali arsenicosum	40	p	
Kali bichromicum	30	p	
Kali bromatum	28	p	
Kali carbonicum*	32	p	
Kali causticum	20	bp	40 lp
Kali chloricum*	25	p	60, 80 ly
Kali chromicum	35	p	
Kali cyanatum*	24	p	
Kali ferro-cyanatum*	35	p	
Kali iodatum	30	p	
Kali muriaticum*	35	p	60 ly
Kali nitricum*	20	p	
Kali oxalicum*	60	p	80 lp
Kali permanganicum	20	lp	
Kali phosphoricum*	12	p	
Kali picricum*	22	p	30 p
Kali sulphuricum*	50	p	85 lp
Kali tartaricum*	10	p	

* trituration form p=pink, lp=light pink, bp=bright pink, ly=light yellow.

Editorial comment: It is a welcome contribution. But what is required is the quantitative estimation of these salts that will help to establish standards of preparations after 10^{-23} .