

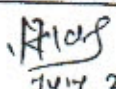
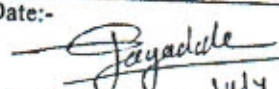
CERTIFICATE OF ANALYSIS

Product	: Permethrin (Pharma Grade) 99%	COA No.	: 963/12
Batch No.	: 1203095	Report No.	: FP-257/12
Mfg. Date	: July 2012	Mfg. Lic. No.	: KD-324
Exp. Date	: June 2017	Quantity	: 50 gm

TEST	OBSERVATION	LIMIT
Appearance	Yellow brownish Colour semi solidify Liquid, Soluble in Alcohol, Acetone, ether & hydrocarbons.	Yellow brownish colour Semi solidify Liquid, Soluble in Alcohol, Acetone, ether & hydrocarbons.
Identification Infrared Absorption	The IR spectrum of the sample is concordant with the spectrum obtained with Permethrin standard.	The IR spectrum of the sample is concordant with the spectrum obtained with Permethrin standard
Acidity	0.17 %	Not more than 0.25 %
pH	6.72	4.5 to 7.0
(1RS)-cis, trans-3(2,2-dichloroethyl)-2,2-dimethylcyclopropane carboxylic acid (DCVC Acid)	0.17 %	Not more than 0.5 %
(1RS)-cis, trans-3(2,2-dichloromethyl)-2,2-dimethylcyclopropane carboxylic acid (DCVC Ester)	Nil	Not more than 0.5 %
3-Phenoxybenzyl Chloride	0.08 %	Not more than 0.1 %
3-Phenoxybenzyl Alcohol	0.22 %	Not more than 0.5 %
3-Phenoxybenzaldehyde	Nil	Not more than 0.3 %
DCVC Aldehyde	0.24 %	Not more than 0.5 %
Methanol	Nil	Not more than 0.2 %
Chloroacetylenic Permethrin	*Not Tested	Not more than 0.3 %
Water (Karl Fisher)	0.52 %	Not more than 2.0 %
Sulphated Ash	0.09 %	Not more than 0.2 %
Highest Individual Unidentified Impurity	0.08 %	Not more than 0.1 %
Total Impurities	0.79 %	Not more than 2.0 %
Purity	99.21 %	98.0 to 102.0 % w/w
Cis Isomer	26.83 : 73.17	25(+2) : 75 (+2)
Specific Gravity	1.208 gm/ml	1.20 To 1.22 gm/ml

*Standard is not available, hence this impurity is not tested.

Note:- Before sampling stir well & warm 40 °C Permethrin solidifies below 35 °C. In case of solidification please warm up to about 40 to 45 °C to get liquid (Before use). This does not affect the quality.

Remarks	: Passes As Per Specification
Prepared By/Date:-  July 26, 2012 Mr. Mhatre V.K. (QA Executive)	Approved By/Date:-  July 26, 2012 Mr. Jagadale S. B. (QA Manager)