



BOC Sciences

A division of Creative Dynamics Inc.

T: 631-504-6093 • F: 631-614-7828 • E: info@bocsci.com

45-16 Ramsey Road Shirley, NY 11967, USA • www.bocsci.com

Certificate of Analysis

Milbemycin Oxime

CAS	129496-10-2	Batch No.	B15W06021
Product Name	Milbemycin Oxime	Batch size	110g
MFG. Date	Jun.02.2015	Retest Date	Jun.02.2017
TESTING ITEM	SPECIFICATION	RESULT	
Appearance	White to off-white crystalline powder	White powder	
Identification (IR)	IR Spectrum Conforms to the standard	Conforms	
Identification (HPLC)	The retention time of the major peak corresponds to that of the Standard solution	Conforms	
Residue on Ignition	≤ 0.2%	0.1%	
Heavy Metals	≤10ppm	<10ppm	
Water	≤2.0%	1.6%	
Organic Impurities	Milbemycin D-oxime: ≤ 2.0% 11-desmethy milbemycin A4 oxime: ≤ 0.5% (20'R)-hydroxymilbemycin A4 Keto: ≤ 0.5% Milbemycin A4 Keto: ≤ 0.7% Any other unknown impurity: ≤ 0.2% Total impurities (Excluding Milbemycin D-oxime) ≤ 3.5%	Milbemycin D-oxime: 0.07% 11-desmethy milbemycin A4 oxime 0.05% 20'R)-hydroxymilbemycin A4 Keto: 0.05% Milbemycin A4 Keto: 0.04% Any other unknown impurity: 0.17% Total impurities (Excluding Milbemycin D-oxime) 0.47%	



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Residue Solvents	Methanol \leq 3000ppm Ethanol \leq 5000ppm Dichloromethane \leq 600ppm n-Hexane \leq 290ppm Chloroform \leq 60ppm n-Heptane \leq 5000ppm Acetone \leq 5000ppm	Methanol 6ppm Ethanol 155ppm Dichloromethane 35ppm n-Hexane 4ppm Chloroform 35ppm n-Heptane 119ppm Acetone 63ppm
Assay	Milbemycin Oxime factor A3+A4: 95.0-101.0% (On anhydrous basis) Milbemycin Oxime factor A3:A4: $(20 \pm 5) : (80 \pm 5)$	Milbemycin Oxime factor A3+A4: 100.9% Milbemycin Oxime factor A3:A4: 17:83
Storage Condition	Store at temperature below -20°C , preserve in tight containers and avoid excessive light.	
Conclusion	The specification conform with the specification	

QA:

Sharon Lee

QC:

Paulo Park

Date:

Jun. 02, 2015