Kalchem International

Chemicals & Compounding Supplies **Certificate of Analysis**

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LETCO MEDICAL: Item/Lot Number(s)									
Item:	685388	Item:	685391	Item:	685389	Item:	691044		
Lot:	1504100193	Lot:	1504100194	Lot:	1504100195	Lot:	1504100196		

Description:	Ibuprofen USP	Source Lot:	C100-1409060M	Expiration Date:	09/17/2019
Date of MFG:	09/18/2014	Test Standard:	USP36		

Test Criteria	Specifications	Results	
Characteristics	White crystalline powder	Conforms	
Solubility	Practically insoluble in water; very soluble in alcohol, in methanol, in acetone, and in chloroform; slightly soluble in ethyl acetate.	Conforms	
Identification: A. IR B. UV C. HPLC	A. Sample IR spectrum corresponds to that of the standard B. Sample UV spectrum does not differ from that of the standard by more than 3.0% C. Retention time corresponds to that of the standard	Conforms Conforms	
Water content	Not more than 1.0%	0.10%	
Heavy Metals	Not more than 0.002%	<0.002%	
Residue on Ignition	Not more than 0.5%	0.01%	
Chromatographic Purity	2-[3-(2-methylpropyl)phenyl]propanoic acid: not more than 0.15% 2-(4-methylphenyl)propanoic acid: not more than 0.15% 2-(4-ethylphenyl)propanoic acid: not more than 0.15% 2-(4-propylphenyl)propanoic acid: not more than 0.15% 2-(4-butylphenyl)propanoic acid: not more than 0.1% Any unknown impurity: not more than 0.05% Total impurities: not more than 0.6%	0.02% Not detected 0.01% 0.01% Not detected 0.03% 0.07%	
Ibuprofen Related Compound C (4- Isobutylacetophenone)	Not more than 0.1%	Not detected	
Assay (Dry basis)	97.0-103.0%	99.9%	
Residual Solvents (Petroleum ether)	Not more than 250ppm	43ppm	
	Additional Tests		
Bulk Density	Density 0.20-0.50g/ml		
Tapped Density	0.40-0.70g/ml	0.52g/ml	
Median Particle Size	30-60um	43.3um	
Conclusion: The product	meets USP36 specifications		

Letco Medical QA Review By/Date: Amanda Kelsoe CHUSCHING

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