



Trafa Pharmaceutical Supplies, LLC

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R1-0250
 R-13046
 2-15-22

Certificate of Analysis

Product Name		CHONDROITIN SULFATE	
Batch No		SN-102521	
Manufacturing Date		Oct. 25, 2021	
Expiry Date		Oct 24, 2024	
Grade		Food Supplement	
Lot size		7000/kg	
Source		Bovine	
ANALYSIS	RESULT	REQUIREMENT	REFERENCE METHOD
Appearance	Powder	Powder	Visual
Particle Size	100% thru 80 mesh	100% thru 80 mesh	80 Mesh Screen
Solubility	H ₂ O	H ₂ O	Visual
Color	Conforms	White to off white	Visual
Odor	Conforms	Deodorized	
Texture	Conforms	Powder	Visual
Taste	Conforms	Characteristic	
Sodium	Passes Test	To Pass Test	USP 41 <191>
Disaccharide Composition	Passes Test	To Pass Test	USP 41 - NF 36
Chloride	Less Than 0.50%	<0.50%	UPS 41 <221>
Chondroitin Sulfate (dry basis)sulfate	95.12%	90.0% - 105.0%	USP 41 <CPC> Titration
Sulfate	Less Than 0.20%	<0.24%	USP 41 <221>
Electrophoretic Purity	Passes Test	<2%	USP 41 - NF 36
Limit of Protein	2.15%	<6.0%	USP 41 - NF 36
Total Bacterial Count	10 CFU per g	<1,000 CFU/g	USP 41 <2021>
Yeast Count	<10 CFU per g	<100 CFU/g	USP 41 <2021>
Mold Count	<10 CFU per g	<100 CFU/g	USP 41 <2021>
Salmonella	Absent	Absent	USP 41 <2022>
Escherichia coli	Absent	Absent	USP 41 <2022>
Staphylococcus Aureus	Absent	Absent	USP 41 <2022>
Heavy Metals	Less than 20 ppm	<20 ppm	USP 41 <231>
Arsenic	<0.01 ppm	<2 ppm	
Cadmium	<0.01 ppm	<2 ppm	
Lead	0.01ppm	<1 ppm	
Mercury	<0.01 ppm	<0.5 ppm	
Limit of Nonspecific Dissacharides	Less Than 10%	<10%	USP 41 - NF 36
Clarity and color of Solution	Passes Test	Absorbance <0.35	USP 41 - NF 36
pH	5.856	5.5 - 7.5	USP 41 <791>
Loss on Drying	3.15%	<12.0%	USP 41 <731>
Species	Bovine	Bovine cartilage	Tepnel Species ELISA
Bulk Density - Tapped	0.7014 g/ml	0.65 - 0.70 g/ml	USP 41 - NF 36
Bulk Density - Untapped	0.5740g/ml	0.55 - 0.60 g/ml	USP 41 - NF 36
Nitrogen	2.32%	2.5% - 3.8%	European Pharmacopia
Sulfur	5.87%	5.5% - 7.0%	European Pharmacopia
Molecular Weight in Daltons	14.275	10,000 - 15,000	Gel Permeation Chromatography

Note: The above information is based on the certificate of analysis received from the manufacturer of this product and not intended as a substitute for strict quality control analysis by the purchaser of this product.

Reviewed by :

Abdullah Malik (QA)