

CERTIFICATE OF ANALYSIS

Product name	Alpha-keto-valine Calcium salt	CAS NO.	51828-94-5
Quantity	37.5kg	Batch NO	*****
Manufacturing date	*****	Shelf life	2 years
Items	Standards	Results	
Appearance	white or almost white crystalline powder	White crystalline powder	
Odor	Characteristic	Characteristic	
Identification	Chemical method or IR or HPLC	Positive	
E _{1cm} ^{1%}	0.05 max	0.013	
PH	5.0-7.5	5.67	
Water content	13.0% max	9.31%	
Assay	98.5%-102.0%	98.65%	
Calcium	14.60-15.13%	14.77%	
Related substance	Any single impurity:0.5% max	0.40%	
	Total impurities :1.0% max	0.71%	
Residual solvents	Methanol:0.3% max	0.03%	
	Ether:0.5% max	0.03%	
Chloride	0.02%max	Conforms	
Heavy metals	0.0020% max	Conforms	
Lead	3ppm max	Conforms	
Mercury	0.1ppm max	Conforms	
Cadmium	1ppm max	Conforms	
Total plate count	1000 cfu/g max	70	
Yeast & mold	100 cfu/g max	50	
E.Coli	Negative	Negative	
Salmonella	Negative	Negative	
Conclusion	Qualified		

Q.C. Director: Chen Dan