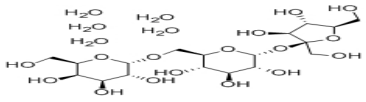


CERTIFICATE OF ANALYSIS

NO: DYC071505224

Product name	D(+)-Raffinose pentahydrate	CAS Number	17629-30-0
Botanic name	Gossypium hirsutum L.	Used part	Seeds
Molecule Structure		Molecule Formula	C18H<SUB32<sub>>O16.5H2O
Manuf. Date:	2012-05-06	Batch number	20120506
Extraction solvent	Ethanol	Report Date	2012-05-06

Items	Standard	Method	Result
Appearance	White crystalline powder	Visual	Complies
Assay	98%min	HPLC-ELSD	98.79%
Odor	Characteristic	Organoleptic	Complies
Powder size	100% through 30mesh	30mesh screen	Complies
Bulk density	0.40-0.50g/cm3	USP34-NF29<616>	0.49g/cm3
Loss on drying	13%-17%	USP34-NF29<731>	14.1%
Melting point	78-82°C	USP34-NF29<741>	Complies
Optical Rotation	103-108°	USP34-NF29<781>	104.4°
PH	5.50-6.50	USP34-NF29<791>	6.21
Residue on ignition	0.1% max	USP34-NF29<281>	0.02%
Residue Ethanol	0.5% max	USP34-NF29<467>	0.08%
Total heavy metals	10µg/g max	USP34-NF29<231>	4µg/g
As	2µg/g max	ICP-MS	0.1µg/g
Cd	2µg/g max	ICP-MS	0.1µg/g
Pb	2µg/g max	ICP-MS	0.2µg/g
Hg	0.5µg/g max	ICP-MS	ND
Total plate count	1000cfu/g max	USP34-NF29<2021>	60cfu/g
Molds and Yeasts	100cfu/g max	USP34-NF29<2021>	10cfu/g max
Salmonella	Absence	USP34-NF29<2022>	Complies
E.Coli	Absence	USP34-NF29<2022>	Complies
Staphylococcus aureus	Absence	USP34-NF29<2022>	Complies

Hangzhou Dingyan Chem Co., Ltd.
 Quality Control *Pats*
 QUALITY CONTROL: *Pats* CHECK:姚仙娟 INSPECTOR: 刘清风