



Shell Chemicals

SJ121837861
PC 285820

Certificate of Analysis

Ship-To:
Univar
2256 Junction Avenue
SAN JOSE CA 95131-1216
USAShell Product : IPA (Isopropyl Alcohol)
Shell Spec. No. : S1111 / 1000Sales Order/Item : 4500846148 / 10 Package Type : Bulk
Delivery Number : 8001991010 Vehicle/Vessel : SCM2425
Despatch Date : OCT.31.2011 Shipping Loc : A046 CORUNNA ON
Inspection Lot : 000001571340

Property	Units	Minimum	Maximum	Result	N	Method
Purity	%m/m	99.8		99.9		DIN 53685
Water	%m/m		0.1	0.0		ASTM D1364
Acidity as acetic acid	%m/m		0.001	< 0.001		ASTM D1613
Water Miscibility	Miscible			Pass		ASTM D1722
Non-volatile Residue	g/100ml		0.001	0.001		ASTM D1353
Appearance	Clear & Free From Suspended Matter			Pass		ASTM D4176
Color, Pt-Co			5	5	4	ASTM D1209
Density @20C	g/ml	0.785	0.786	0.786	4	ASTM D4052
Distillation, IBP	°C	81.8		81.8	4	ASTM D1078
Distillation, DP	°C		82.8	82.8	4	ASTM D1078
Refractive Index @20C		1.376	1.378	1.377	4	ASTM D1218

(N)otes :4-Agreed Specification limits - no results: Statistical average value reported

Product as produced complies with ASTM D770, DIN 53245 and ACS 8th edition. Product meets guaranteed limits, but are not routinely tested.

Shell Chemicals certifies that these results are based upon sampling and testing procedures in place at the time of production

600229/286030