

**THE AMALGAMATED SUGAR COMPANY, LLC.**  
**CENTRAL LABORATORY**  
**TWIN FALLS, IDAHO ✓**  
 April 13, 2010

**Certificate of Analysis (NF and EP)**

Customer:

Attn:

Product:

Lot:

Sucrose, (NF and EP)

FAX:

Date of Manufacture: March 08, 2010 ✓

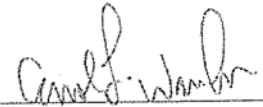
**NF**

<u>Test</u>	<u>Requirement</u>	<u>Results/Units</u>	<u>Method Code</u>
Residue on ignition	(<0.05%)	<u>Pass/0.02%</u>	NF 281
Chloride	(<0.0035%)	<u>Pass/&lt;0.0035%</u>	NF 221
Sulfate	(<0.006%)	<u>Pass/&lt;0.006%</u>	NF 221
Calcium	Solution remains clear for at least 1 minute.	<u>Pass/Clear</u>	NF
Specific Rotation/Identification	(>+65.90°)	<u>Pass/+66.44°</u>	NF 781S
Heavy Metals	(<5 ppm)	<u>Pass/&lt;5 ppm</u>	NF 231
Invert Sugar	(<112 mg cuprous oxide)	<u>Pass/ 60mg</u>	NF

**EP**

Identification by IR	The absorption maxima correspond in position and relative intensity to those in reference spectrum.	<u>Pass</u>	2.2.24
Appearance of Solution	Solution S is clear.	<u>Pass</u>	2.2.1
Conductivity	(Maximum 35uS/cm)	<u>Pass/19uS/cm</u>	2.2.38
Specific Optical Rotation	(+66.3 to +67.0)	<u>Pass/+66.44°</u>	2.2.7
Colour value	(Maximum 45)	<u>Pass/28</u>	EP
Dextrins	The solution remains yellow.	<u>Pass</u>	EP
Reducing Sugars	The blue colour does not disappear completely.	<u>Pass</u>	EP
Sulphites	(Maximum 10 ppm)	<u>Pass/&lt;10 ppm</u>	EP
Loss on Drying	(Maximum 0.1%)	<u>Pass/0.019%</u>	2.2.32
Bacterial endotoxins	< 0.25 IU/mg	<u>Pass/&lt;0.25 IU/mg</u>	2.6.14

THIS SUGAR IS CERTIFIED TO MEET SPECIFICATIONS FOR SUCROSE, AS SET FORTH IN THE USP-NF and EP OFFICIAL COMPENDIA OF STANDARDS. *VERSIONS:* USP 32 NF 27 and EP 6<sup>th</sup> EDITION-SUPPLEMENT 6.3

 04/13/10  
 Carol L. Wambolt Date issued  
 Central Laboratory Supervisor