

# *Chem-Impex International, Inc.*

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**Manufacturing site:**

825 Dillon Drive

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## *Certificate of Analysis*

<b>Catalogue Number</b>	21825
<b>Product</b>	<b><math>\gamma</math>-Cyclodextrin</b>
<b>Lot Number</b>	002554-20180827
	Cycloflo(TM) 42
<b>CAS Number</b>	17465-86-0
<b>Molecular Formula</b>	C <sub>48</sub> H <sub>80</sub> O <sub>40</sub>
<b>Molecular Weight</b>	1297.12

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<b>Appearance</b>	White or almost white amorphous or crystalline powder
<b>Clarity &amp; Color</b>	Absorbance < 0.2 at 420 nm
<b>Solubility</b>	Freely soluble in water and in propylene glycol; very slightly soluble in alcohol
<b>Mould and Yeast</b>	< 25 cfu/g
<b>Optical Rotation</b>	[ $\alpha$ ] <sub>D</sub> <sup>20</sup> = 175 °
<b>Infrared Spectrum</b>	Conforms to structure
<b>Reducing Sugars</b>	0.068%
<b>Loss on Drying</b>	9.6%
<b>E. Coli</b>	Absence
<b>Microbial Count</b>	< 25 cfu/g (TVAC)
<b>Salmonella</b>	Absence
<b>Related Substances</b>	Alpha-cyclodextrin : 0.08% Beta-cyclodextrin : 0.12% Sum of other impurities : 0.31%
<b>Residue On Ignition</b>	0.10%
<b>Assay</b>	99.6%
<b>Grade</b>	USP
<b>Storage</b>	Store at 0 - 8 °C

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**Remarks**

See material safety data sheet for additional information

For laboratory use only

**The foregoing is a copy of the Certificate of Analysis as provided by our supplier**



**Bala Kumar**  
**Quality Control Manager**