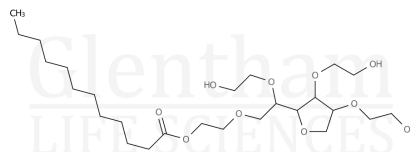


Certificate of Analysis

Product Name	Tween 20, BP, Ph. Eur., USP/NF grade
Glentham Code	GE1584
CAS Number	9005-64-5
EINECS	500-018-3
MDL Number	MFCD00165986
Batch Number	565BEK
Molecular Weight	1227.54
Molecular Formula	$C_{58}H_{114}O_{26}$
Storage Temp.	+20°C



Property	Specification	Batch 565BEK
Physical Description	Clear, light-yellow to brown-yellow liquid	Clear, light-yellow to brown-yellow liquid
Identification	To pass BP, Ph. Eur., USP/NF tests	Conforms
Colour (Gardner)	≤ 10 (25°C)	4.0
Acid Value	≤ 2.0mgKOH/g	0.5mgKOH/g
Hydroxyl Value	96 - 108 mgKOH/g	99mgKOH/g
Peroxide Value	≤ 10.0meq/kg	0meq/kg
Saponification Value	40 - 50 mgKOH/g	42mgKOH/g
Composition of fatty acids	Caproic acid: ≤ 1.0%	0%
	Caprylic acid: ≤ 10.0%	6.9%
	Capric acid: ≤ 10.0%	5.8%
	Lauric acid: 40.0 - 60.0 %	51.6%
	Myristic acid: 14.0 - 25.0 %	19.7%
	Palmitic acid: 7.0 - 15.0 %	9.6%
	Stearic acid: ≤ 7.0%	0.7%
	Oleic acid: ≤ 11.0%	5.7%
	Linoleic acid: ≤ 3.0%	0%
Ethylene Oxide	≤ 1ppm	Conforms
1,4-Dioxane	≤ 10ppm	≤ 1ppm
Heavy Metals (as Pb)	≤ 10ppm	Conforms
Water	≤ 3.0%	2.3%
Sulphated Ash	≤ 0.25%	Conforms
Residual Solvents	To pass tests	Conforms
Pharmacopoeia Specification(s)	Conforms to BP, Ph. Eur., USP/NF	Conforms

Specification Version	v1.1
Manufacture Date	2024-10-18
Re-Test Date	2032-01-27

Certificate of Analysis

Glentham Life Sciences confirm that the above referenced product conformed to the information displayed in this document on the quality release date. Please check www.glentham.com or contact us using the details above for the current version of this document.

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