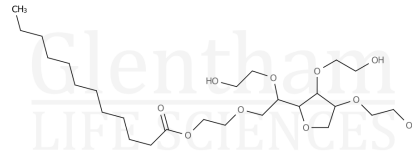


## Certificate of Analysis

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	715DRV
Molecular Weight	1227.54
Molecular Formula	$C_{58}H_{114}O_{26}$
Storage Temp.	+20°C



Property	Specification	Batch 715DRV
Physical Description	Clear, light-yellow to brown-yellow liquid	Conforms
Identification	To pass BP, Ph. Eur., USP/NF tests	Conforms
Colour (Gardner)	≤ 10 (25°C)	3.0
Acid Value	≤ 2.0mgKOH/g	0.5mgKOH/g
Hydroxyl Value	96 - 108 mgKOH/g	102mgKOH/g
Peroxide Value	≤ 10.0meq/kg	1.6meq/kg
Saponification Value	40 - 50 mgKOH/g	41mgKOH/g
Composition of fatty acids	Caproic acid: ≤ 1.0%	0.0
	Caprylic acid: ≤ 10.0%	5.2
	Capric acid: ≤ 10.0%	5.6
	Lauric acid: 40.0 - 60.0 %	50.3
	Myristic acid: 14.0 - 25.0 %	19.0
	Palmitic acid: 7.0 - 15.0 %	10.5
	Stearic acid: ≤ 7.0%	1.6
	Oleic acid: ≤ 11.0%	7.6
	Linoleic acid: ≤ 3.0%	0.0
Ethylene Oxide	≤ 1ppm	Conforms
1,4-Dioxane	≤ 10ppm	Conforms
Heavy Metals (as Pb)	≤ 10ppm	Conforms
Water	≤ 3.0%	2.6%
Sulphated Ash	≤ 0.25%	0.12%
Residual Solvents	To pass tests	Conforms
Pharmacopoeia Specification(s)	Conforms to BP, Ph. Eur., USP/NF	Conforms

Specification Version	v1.1
Manufacture Date	2022-05-19
Re-Test Date	2030-05-19

## 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](http://www.glentham.com) or contact us using the details above for the current version of this document.

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