

CERTIFICATE OF ANALYSIS

Product : **TWEEN 80
(POLYSORBATE 80)**

Product number : P1365

Batch number : 017689

Date of analysis : 05-09-2022

Date of expiry : 28-02-2025

Packaging and storage : store at room temperature

	SPECIFICATION	RESULT	UNITS	REMARKS
Appearance	oily, colourless or brownish-yellow, clear or slightly opalescent liquid	complies		
Identification:				
-A (IR-spectrum)	conform	complies		
-D (composition of fatty acids)	conform	complies		
Acid value	≤ 2.0	1.3	mg KOH	
Hydroxyl value	65 – 80	74	mg KOH	
Peroxide value	≤ 10.0	0.3		
Saponification value	45 – 55	48	mg KOH	
Water content	≤ 3.0	2.7	%	
Total ash	≤ 0.25	0.01	%	
Ethyleneoxide content	≤ 1	< 1	ppm	GC
Dioxane content	≤ 10	< 10	ppm	GC
Composition of fatty acids	conform	complies		
- Oleic acid	≥ 58.0	74.9	%	
- Linoleic acid	≤ 18.0	≤ 0.3	%	
- Linolenic acid	≤ 4.0	≤ 0.1	%	
- Palmitic acid	≤ 16.0	4.7	%	
- Palmitoleic acid	≤ 8.0	1.0	%	
- Stearic acid	≤ 6.0	1.6	%	
- Myristic acid	≤ 5.0	0.1	%	

This certificate of analysis is conform the results of the manufacturer.

Conclusion: approved

Released by:

Q. de Hoog, MSc, pharmacist
Department of Quality Control Duchefa B.V.

Date: 19-04-2023

The buyer is responsible to test each batch to ensure the product is suitable for their specific purpose.

Duchefa Biochemie B.V.