

CERTIFICATE OF ANALYSIS

Product : **TWEEN 80**
(POLYSORBATE 80)
Product number : P1365
Batch number : 014982
Date of analysis : 12-10-2018
Date of expiry : 30-06-2021

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	1.6	mg KOH	
Hydroxyl value	65 – 80	72	mg KOH	
Peroxide value	≤ 10.0	0.1		
Saponification value	45 – 55	48	mg KOH	
Water content	≤ 3.0	2.6	%	
Total ash	≤ 0.25	0.11	%	
Ethyleneoxide content	≤ 1	< 1	ppm	GC
Dioxane content	≤ 10	< 1	ppm	GC
Composition of fatty acids	conform	complies		
- Oleic acid	≥ 58.0	77.7	%	
- Linoleic acid	≤ 18.0	≤ 0.05	%	
- Linolenic acid	≤ 4.0	≤ 0.05	%	
- Palmitic acid	≤ 16.0	4.4	%	
- Palmitoleic acid	≤ 8.0	1.0	%	
- Stearic acid	≤ 6.0	1.5	%	
- Myristic acid	≤ 5.0	0.3	%	

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

Conclusion: approved
Released by:

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


Date: 06-11-2019

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

Duchefa Biochemie B.V.