CERTIFICATE OF ANALYSIS

Product Description POLYOXYETHYLENESORBITAN MONOLAURATE, NF GRADE

TWEEN® 20

Product Number P720

Lot Number HTY0720023

Storage Temperature Room Temperature

Molecular Weight 1227.5 Formula $C_{58}H_{114}O_{26}$ CAS Number 9005-64-5

Physiochemical Specifications:

TEST	SPECIFICATION	RESULTS
Solubility	Miscible with Water @ 1 mL/L	Passes
Physical Appearance		
Color*	2146-60 to 2150-60, 2023-60 to	2025-60 PaleYellow
	2027-60, or 2024-40 to 2024-50	
Texture	Clear, Viscous Liquid	Clear, Viscous Liquid
Insolubles	None	Passes

^{*} Product color based upon comparisons between sample and standardized color wheel (Benjamin Moore® Color PreviewTM).

Biological Testing:

Test concentration: 1.0 mL/L

TEST SPECIFICATION	PLANT CELL LINE	RESULTS
This product is commonly used as a surfactant. It is tested with two or more plant cell lines to	Begonia	Passes
ensure there are no phytotoxic impurities that would cause morphological aberrations to plants.	Tobacco Callus	Passes

The material described in this certificate is synthetic. No animal- or plant-derived components were used in the manufacture of this product.

PhytoTech Labs Inc. provides the above information intended to be used only as a guide to the appropriate handling of this material by a properly trained person. PhytoTech Labs Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. This product is intended for LABORATORY USE ONLY. Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticidal products, food additives or as household chemicals.

Date of Release: 28-December-2021

Recommended Shelf Life Date: December 2029

David Hart

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