

## Cold Processed Cream Toothpaste – based on glycerin/sorbitol with GENUVISCO® carrageenan type TPC-1

DF-8666

This formulation produces a fluoride toothpaste with good stand-up and excellent extrusion properties. The paste has excellent long-term stability.

Ingredient	Weight %	Chemical	Function
<b>GENUVISCO® TPC-1</b> <sup>1</sup>	0.85	Carrageenan	Binder/Thickener
Glycerin (99%, USP)	13.00		Humectant
Neosorb® 70/100, NF/USP <sup>2</sup>	16.86	70% Non-crystallizing Sorbitol solution	Humectant
Water	20.36		
Sodium saccharin, USP	0.20	Dihydrate form	Sweetener
Sodium benzoate, USP	0.50		Preservative
Dicalcium phosphate, dihydrate (DCP) (Astaris DCPD 260), USP <sup>3</sup>	45.00		Abrasive
Tetrasodium pyrophosphate (TSPP)	0.42		Anti-hardening agent
Sodium monofluorophosphate	0.76		Fluoride source
Peppermint Flavor <sup>3</sup>	0.55		
Stepanol® WA-100, USP/NF <sup>4</sup>	1.50	Sodium lauryl sulfate	Foaming agent

### Preparation

1. Disperse **GENUVISCO®** carrageenan type **TPC-1** in glycerin while stirring with a propeller stirrer. Mix for 5 minutes.
2. Add sorbitol and water and mix for 60 minutes at 1000-2000 rpm.
3. Add sodium saccharin and sodium benzoate and stir for 30 minutes at 2000 rpm.
4. Transfer the solution to a toothpaste mixer.
5. Add the dicalcium phosphate dihydrate and mix at low speed for 10 minutes to completely wet the DCP. Add vacuum and mix for 20 minutes.
6. Add TSPP and mix for 5 minutes at low speed. Add the sodium monofluorophosphate and mix for 5 minutes at low speed, followed by 10 minutes at medium speed.
7. Add the sodium lauryl sulfate and peppermint flavor. Mix for 1 minute at low speed. Open the mixer and scrape down the beaters and bowl sides. Close the mixer and apply vacuum. Mix at low speed for 5 minutes.

### North American Ingredient Suppliers

1. CP Kelco, 8355 Aero Drive, San Diego, CA 92123-1718, U. S. A.
2. Roquette America, Inc., 1417 Exchange Street, P. O. Box 6647, Keokuk, IA 52632, U. S. A.; 319-524- 5757; [www.roquette.com](http://www.roquette.com); North American distributor: Allied Starch and Chemical, 3000 East 46th Street, Vernon, CA 90058, U. S. A.; 323-584-0214
3. Astaris, 622 Emerson Road, St. Louis (Creve Coeur), MO 63141-1160, U. S. A.; 314-983-7500; [www.astaris.com](http://www.astaris.com)
4. International Flavors and Fragrances, 1515 Hwy 36, Union Beach, NJ 07735, U. S. A.; 732-329-4600; [www.iff.com](http://www.iff.com)
5. Stepan Company, Northfield, IL, 60093, U. S. A.; 800-745-STEP; [www.stepan.com](http://www.stepan.com)

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Neosorb® is a registered trademark of Roquette America, Inc.

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#### In the U.S. or Canada:

**Tel.:** +1-800-535-2687 (800-KELCO-US) **Fax:** +1-858-292-4901  
+1-858-292-4900

#### Outside the U.S.:

**Tel.:** +44 (0) 1372 369 400 **Fax:** +44 (0) 1372 369 401  
+45 56 16 56 16  
+31 26 365 3200 +45 56 16 94 46  
+31 26 365 3299