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Health Canada Santé Canada

Oral Health Products Monograph

Health Products and Food Branch

Canada

FOREWORD

This monograph is intended to replace the existing Oral Health Products Monograph of December 16, 2014. This monograph describes the requirements necessary to receive market authorization [i.e. a Drug Identification Number (DIN) or a Natural Product Number (NPN)], for oral health products. The monograph identifies the permitted medicinal and non-medicinal ingredients, concentrations, indications, directions and conditions of use for these products to be market authorized without the submission to Health Canada of additional evidence. It may also contain the test methods recommended to be used to comply with the requirements of this monograph. Products which do not meet the criteria outlined in this document can apply for market authorization outside of the monograph stream.

Applicants are reminded that oral health products, like other non-prescription drugs or natural health products, are subject to the Food and Drug Regulations or the Natural Health Products Regulations administered by the Natural and Non-prescription Health Products Directorate (NNHPD). This includes requirements related to labelling, manufacturing and product specifications. Additional information on labels, outside of those specified in the monograph, such as additional directions for use and/or non-therapeutic claims are acceptable as long as they meet the Guidelines for the Nonprescription and Cosmetic Industry Regarding Non-therapeutic Advertising and Labelling Claims, the Guidelines for Consumer Advertising of Health products for Nonprescription drugs, Natural Health Products, Vaccines and Medical Devices, and are not false, misleading or counterintuitive to the use of the product.

The development of this monograph is the result of a thorough review of existing regulations, guidance documents, policies and current practices within Health Canada and other leading regulatory agencies.

Note:
The solidus (/) indicates that the terms and/or the statements are synonymous. Either term or statement may be selected by the applicant. Text in parentheses is additional optional information which can be included on the Product Licence Application form and label at the applicant's discretion.

MEDICINAL INGREDIENT(S)

Oral health products are classified as natural health products (NHP) if they contain an ingredient listed in Table 1. Applicants seeking to obtain a NPN can access the appropriate forms and guidance at https://www.canada.ca/en/health-canada/services/drugs-health-products/natural-non-prescription.html.

Oral health products are classified as non-prescription drugs if they contain an ingredient from Table 2 at a quantity listed. Applicants applying for a DIN can access the appropriate forms and templates at: https://www.canada.ca/en/health-canada/services/drugs-health-products/drug-products/applications-submissions.html.

Table 1: NHP medicinal ingredients

Proper name(s)[1]	Common name(s)[1]	Source material(s)[1,2]
		Common name(s)
Acidulated phosphate fluoride[3]	Acidulated phosphate fluoride	Acidulated phosphate fluoride
• Disodium phosphorofluoridate • Phosphorofluoridic acid, disodium salt • Sodium monofluorophosphate	Sodium monofluorophosphate	Sodium monofluorophosphate
Nitric acid potassium salt (1:1)	Potassium nitrate	Potassium nitrate
Sodium fluoride	Sodium fluoride	Sodium fluoride
• Stannous fluoride • Tin (II)-fluoride • Tin difluoride	• Stannous fluoride • Tin difluoride • Tin fluoride	Stannous fluoride

1. At least one of the following references was consulted per proper name, common name, and source material: O'Neil et al. 2018; Nikitakis and Lange 2016; USP 41.
2. Ingredient must be pharmacopoeial grade (for a list of acceptable pharmacopoeial grades, see the Quality of Natural Health Products Guide).
3. Acidulated phosphate fluoride is derived from sodium fluoride acidulated with a mixture of sodium phosphate dibasic or monobasic and phosphoric acid to a level of 0.1 molar phosphate to yield a pH of 3.0 to 4.5 (FDA 1995).

Table 2: Non-prescription drug medicinal ingredient

Proper name(s)	Common name(s)	Source material(s)	Quantity
		Common name(s)	
1-Hexadecylpyridinium chloride	Cetylpyridinium Chloride	Cetylpyridinium Chloride	0.05 – 0.075%

ROUTE(S) OF ADMINISTRATION

Dental, Gingival, Periodontal

DOSAGE FORM(S)

Acceptable dosage forms for the age category listed in this monograph and specific route of administration are indicated in the Compendium of Monographs Guidance Document. The dosage

form *Gel* is not acceptable for products containing Potassium nitrate. The only acceptable dosage forms for products containing Cetylpyridinium chloride are *Mouthwash* and *Solution*.

USE(S) OR PURPOSE(S)

Self-Care Framework Category I Uses or Purposes:

For products listed in Table 1, excluding Potassium nitrate:

- Anti-cavity/Anti-caries (IOM 1997; Zimmerman 1992)
- Prevents, fights and/or protects against cavities/caries (Sweetman 2017; FDA 1995; Zimmerman 1992).
- Reduces the incidence of cavities/caries (Sweetman 2017; FDA 1995; Zimmerman 1992
- Helps prevent tooth decay (Sweetman 2017; FDA 1995; Zimmerman 1992).
- Effective fluoride protection (FDA 1995).
- Effective decay preventive fluoride (FDA 1995).
- Protects teeth from acid wear/erosion (Sweetman 2017; IOM 1997; Zimmerman 1992).
- Helps delay/ slow the tooth decay process at the earliest stage before it can become a cavity (IOM 1997).
- Penetrates tooth enamel to help rebuild weak spots (Sweetman 2017; Zimmerman 1992).
- Helps remineralize tooth enamel (Sweetman 2017; Zimmerman 1992).

For products containing Potassium nitrate:

- Helps reduce (painful) sensitivity of the teeth (due)(to) (cold)/ (heat)/ (acids)/ (sweets)/ (contact) (Silverman et al. 1996; Nagata et al. 1994; FDA 1994).
- Builds protection/ Protects from (painful) sensitivity of the teeth (due)(to) (cold)/ (heat)/ (acids)/ (sweets)/ (contact) (Palé et al. 2013; FDA 1994).
- (Builds)(Effective) Protection against (painful) sensitivity of the teeth (due)(to) (cold)/ (heat)/ (acids)/ (sweets)/ (contact) (Palé et al. 2013; FDA 1994).
- Shields/soothes dental nerves for lasting sensitivity relief when used regularly (Silverman et al. 1996; Nagata et al. 1994; FDA 1994).

For products containing cetylpyridinium chloride:

- Kills germs that cause bad breath.
- Helps prevent/reduce plaque and gingivitis.

DOSE(S)

Subpopulation(s):

- For dentifrice products that do not contain Potassium nitrate: Children 2 to 11 years, Adolescents 12 to 17 years, Adults 18 years and older
- For products that do not contain potassium nitrate in the following dosage forms: Preventive treatment gel; treatment rinse; concentrated treatment rinse, mouthwash (rinse): Children 6 to 11 years, Adolescents 12 to 17 years, Adults 18 years and older
- For products containing Potassium nitrate: Adolescents 12 to 17 years, Adults 18 years and older

Quantity:

Table 3: Dose information for dentifrice (gel or paste)

Medicinal Ingredient	Quantity (% w/w)	Theoretical Total Fluoride (mg/kg = ppm)	Available Fluoride Ion(mg/kg = ppm)	Frequency
Potassium nitrate	5	N/A	N/A	minimum twice a day
Sodium fluoride	0.188 – 0.254	850 – 1150	≥ 650	minimum twice a day
Sodium monofluorophosphate	0.654 – 0.884	850 – 1150	≥ 800 PO_3F^{2-} and F^- combined	minimum twice a day
Stannous fluoride	0.351 – 0.474	850 – 1150	≥ 700 (for products containing abrasives other than calcium pyrophosphate) ≥ 290 (for products containing the abrasive calcium pyrophosphate)	minimum twice daily

Table 4: Dose information for preventive treatment gel, treatment rinse (mouthwash) and concentrated treatment rinse (solution, effervescent tablet or powder)

Medicinal Ingredient	Quantity % (w/w)	Frequency
Acidulated phosphate fluoride	0.01	twice a day
	0.02	once a day
Potassium nitrate	3	twice a day
Sodium fluoride	0.02	twice a day
	0.05	once a day
	0.2[1]	once a week
Sodium fluoride (as concentrated treatment rinse)	diluted in water to 0.02	twice a day
	diluted in water to 0.05	once a day
	diluted in water to 0.2	once a week
Stannous fluoride (in preventive treatment gel only)	0.4	once a day
Stannous fluoride (as concentrated treatment rinse)	diluted in water to 0.1	once a day

1. Sharma et al. 2012, Sweetman 2017, Gillam 1996, FDA 1995

Note: For concentrated treatment rinse products requiring dilution: The labels must contain the quantity of the product before and after dilution as well as the appropriate dilution directions.

End-of shelf life minimal Fluoride Ion (mg/kg= ppm):

- Sodium fluoride: ≥ 403 mg/kg
- Sodium monofluorophosphate : ≥ 600 mg/kg
- Stannous fluoride: ≥ 650 mg/kg for products containing abrasives other than calcium pyrophosphate; ≥ 108 mg/kg for products containing the abrasive calcium pyrophosphate

Note: End of Shelf life minimal fluoride Ion values in mg/kg can be included as additional information on the label but are not required on the PLA. These values are intended for determining expiration dating and are not to be used for determining safety and efficacy

Permitted combinations:
Potassium nitrate can be combined with any one of the ingredient listed in Table 1

Directions for use:

For all products, the following statement must be made:
- Do not swallow

For all products, the following statement may be made:
- (Should be used as)(Use as a) part of an oral health program that includes regular flossing and dental check-ups (CDA 2018)

For dentifrice products, the following statement must be made:
- Brush teeth thoroughly (for at least 1 minute), preferably after each meal, or as directed by a dentist/ doctor/ physician/ health care practitioner/ health care provider/ health care professional (FDA 1995).

For dentifrice products that do not contain Potassium nitrate, the following statement must be made:
- Children under 6 years of age should use only a pea-sized amount and be supervised (to brush properly and to not swallow) (CDA 2018).

For dentifrice products that do not contain Potassium nitrate, the following statement may be made:
- Consult a dentist/ doctor/ physician/ health care practitioner/ health care provider/ health care professional before using in children under 2 years of age.

For preventive treatment gels, treatment rinses, concentrated treatment rinses, and mouthwash (rinse) products, the following statements must be made:
- Use after brushing (teeth) with toothpaste (Krinsky 2017; FDA 1995).
- Do not eat, drink or rinse with water for 30 minutes after use (Krinsky 2017; FDA 1995).
- Instruct children under 12 years of age (in the proper use of the product and) in good brushing and rinsing habits to minimize swallowing (Krinsky 2017; FDA 1995).

For daily treatment rinses, concentrated treatment rinses, and mouthwash (rinse) products containing 0.02% and 0.05% sodium fluoride, the following statement may be made:
- Consult a dentist/ doctor/ physician/ health care practitioner/ health care provider/ health care professional before using in children under 6 years of age (Krinsky 2017; FDA 1995).

For weekly rinses with 0.2% sodium fluoride, the following statements must be made:
- Not recommended for use in children under 6 years of age (Sweetman 2017).

For preventive treatment gel products, the following statement must be made:
- Apply the gel to teeth and brush thoroughly. Allow the gel to remain on the teeth for 1 minute and then spit out (Krinsky 2017; FDA 1995).

For treatment rinses, concentrated treatment rinses (after proper dilution), and mouthwash (rinse) products excluding Cetylpyridinium chloride, the following statement must be made:

- Swish approximately 10 mL of rinse vigorously around and between the teeth for 1 minute and then spit out (Krinsky 2017; FDA 1995).

For concentrated treatment rinse products in a solution, effervescent tablet, or powder dosage form, the following statements must be made:

- Do not use before mixing with water and/or until all the tablet/powder has dissolved completely (FDA 1995).
- Use immediately after preparing the rinse (FDA 1995).

For products containing potassium nitrate, the following statement must be made:

- Not recommended for children under 12 years of age (FDA 1995).

For products containing Cetylpyridinium chloride, the following statements must be made:

- Use after (your normal) brushing and flossing (routine). Rinse toothpaste from mouth prior to use
- Rinse/Swish/Gargle around the mouth twice a day for 30 seconds with 20 mL (4 teaspoonfuls) and spit out
- Do not eat or drink anything for 30 minutes after use

For products containing Cetylpyridinium chloride, the following statements may be made:

- (This product is not intended to replace brushing or flossing)

Duration(s) of use:
No statement is required.

RISK INFORMATION

Caution(s) and Warning(s):

For all products:

- **Keep out of reach of children.** If swallowed, call a poison control centre or get medical help right away.

For preventative treatment gels products containing stannous fluoride:

- **When using this product** surface staining of the teeth may occur. Adequate brushing may prevent these stains which are harmless and temporary and may be removed by a dentist/ dental care practitioner (FDA 1995).

For products containing potassium nitrate:

- **Stop use and ask/consult a doctor/ physician/ dentist/ dental care practitioner/ health care practitioner/ health care provider/ health care professional if** symptoms persist or worsen (FDA 1995)

For products containing cetylpyridinium chloride:

- **When using product this product** surface staining of the teeth may occur. Adequate brushing may prevent these stains which are harmless and temporary and may be removed by a dentist/ dental care practitioner.

For products containing more than the equivalent of 120 mg of fluoride ion, except those in toothpaste form (includes dentifrice paste and dentifrice gel):

- **Keep out of reach of children.** This product contains enough fluoride to seriously harm a child. (Note: These cautionary statements shall be preceded by a prominently displayed

symbol that is octagonal in shape, conspicuous in colour and on a background of a contrasting colour. If the product is recommended solely for children, all package sizes must be packaged in a child-resistant package (CRP). If the product is not recommended solely for children, at least one of the sizes of packages available for sale must be packaged in CRP and all other package sizes must carry a statement that the NHP is available in a CRP, as per Section 97 of the Natural Health Product Regulations, citing Sections C.01.029, C.01.031 and C.01.031.2 (1) of the Food and Drug Regulations (JC 2014)).

Contraindication(s):
For products containing cetylpyridinium chloride:

- **Do not use** if you have painful or swollen gums, pus from the gum line, loose teeth or increased spacing between the teeth. See your dentist immediately, as these may be signs of periodontitis, a serious gum disease.

NON-MEDICINAL INGREDIENTS

Ingredients must be chosen from the current Natural Health Products Ingredients Database (NHPID) and must meet the limitations outlined in that database, the Food and Drug Regulations (FDR), and the current Cosmetic Ingredient Hotlist, when relevant.

STORAGE CONDITIONS

No statement required.

SPECIFICATIONS

This monograph describes those requirements that are specific to this class of non-prescription drugs and to NHPs. Any change to the manufacturing process that impacts the safety and efficacy of the ingredients, such as the use of novel technology (e.g. nanotechnology), requires supporting data and will be reviewed outside the monograph.

For products containing Table 1 NHP medicinal ingredients only:
The finished product specifications must be established in accordance with the requirements described in the NNHPD Quality of Natural Health Products Guide. The medicinal ingredient must comply with the requirements outlined in the NHPID.

The medicinal ingredient(s) must either comply with the specifications outlined in the monographs published in the British(BP), European (Ph. Eur.) or United States(USP) pharmacopoeias; or, be cited in an approved NHP Master File, authorized by a letter of access issued to the applicant by the NHP Master File's registered owner.

Diethylene glycol (DEG) is not acceptable as a non-medicinal ingredient. Product licence applicants must have a copy of a Certificate of Analysis or any other equivalent document confirming the absence of DEG in the finished product on file. This information is not to be submitted with the compendial Product Licence Application, although it may be requested at the NNHPD's discretion.

Products containing glycerin as a non-medicinal ingredient must meet the specifications as outlined in the United States Pharmacopoeia.

For products containing Table 2 non-prescription drug medicinal ingredients:

Requirements described in the Regulations to the Food and Drugs Act must be met.

DRUG FACTS TABLES (Format Optional for Self-Care Category I)

Drug Facts
Active ingredient (w/w) **Purpose** Cetylpyridinium chloride XX %…… Antiseptic mouthwash
Uses • Kills germs that cause bad breath • Helps prevent/reduce plaque and gingivitis
Warnings **Do not use** if you have painful or swollen gums, pus from the gum line, loose teeth or increased spacing between the teeth. See your dentist immediately, as these may be signs of periodontitis, a serious gum disease.
When using product this product surface staining of the teeth may occur. Adequate brushing may prevent these stains which are harmless and temporary and may be removed by a dentist/ dental care practitioner
Stop use and ask/consult a doctor/ physician/ dentist/ dental care practitioner/ health care practitioner/ health care provider/ health care professional if symptoms persist or worsen
Keep out of reach of children. If swallowed, call a poison control centre or get medical help right away.
Directions Adults and children 6 years and over: • Do not swallow • Use after (your normal) brushing and flossing (routine). Rinse toothpaste from mouth prior to use • Rinse/Swish/Gargle around the mouth twice a day for 30 seconds with 20 mL (4 teaspoonfuls) and spit out • (This product is not intended to replace brushing or flossing) • Do not eat or drink anything for 30 minutes after use • (Should be used as)(Use as a) part of an oral health program that includes regular flossing and dental check-ups
Other information [If no other information, delete this section]
Inactive ingredients List NMIs
Questions? 1-XXX-XXX-XXXX (or other contact information)

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