## **AromaStick Refresh**







A refreshing scent that makes breathing feel cool and clear

Ingredients: Organic Eucalyptus Oil, Organic Menthol

Every now and then the nose can benefit from a little help. This is particularly the case in cold or clammy weather and in stuffy environments.

The AromaStick Refresh contains a classic blend of refreshing eucalyptus and cooling menthol. It's the typical combination that fishermen take with them on stormy and freezing trips into the North Atlantic, or sweet manufacturers claim help you stay fresh when chewing gum or candy. The difference is, that AromaStick Refresh uses 100% natural and organic ingredients only and nothing else. No artificial flavors. No fragrances. No isomalts. No gelatins. No colors. No mono– and diglycerides. A deep sniff from an AromaStick Refresh delivers the benefits of pure, botanical ingredients directly to the nose.

Eucalyptus oil is popularly used for sore throats, cough, and seasonal allergies. Its benefits are due to its immune-modifying and antimicrobial effects (Sadlon 2010), as well as for its antioxidant protection (Lee, 2001). Eucalyptus oil has been shown to relax bronchial and vascular smooth muscle and its main ingredient eucalyptol (1.8-cineol) is frequently used as a nasal decongestant and anticough agent (Laude 1994) as well as to treat bronchitis, sinusitis and chronic rhinitis (Juergens 1998). Prolonged exposure to inhalation has been shown to increase cerebral (brain) blood flow which correlated with eucalyptol concentration in blood (Stimpfl 1995). Inhalation of eucalyptol in sensitized guinea-pigs showed reduced inflammatory parameters in airways (Bastos, 2010).

Menthol occurs naturally in peppermint oil. It can also be produced synthetically but then it comes with a different chirality, or "handedness", which can have a considerable effect on a substance's reaction pathway. From a pharmacokinetics point of view (the way a substance moves through the body), chirality can influence the manner in which a substance is absorbed, distributed and metabolized in the body (Szelenyi et al. 1998). Menthol is a cold receptor agonist that is widely used to clear the head and nasal passages and to reduce symptoms of nasal congestions and colds. While it has no effect on objective measures of airflow, menthol significantly increases the perception of nasal patency (Kenia 2008). Research on menthol's effects on airway smooth muscle contraction suggest that its use is beneficial for reducing respiratory symptoms (Ito 2008). Menthol also suppresses cough evoked in the lower airways primarily through a reflex initiated from the nose (Plevkova 2013) and reduces the sensation of respiratory discomfort by stimulating cold receptors in the nose (Nishino 1997).

The effectiveness of scents, however, is not just down to the essential oils used. In fact, effectiveness highly depends on molecular concentration in the inhaled air (Buchbauer et al. 1993). The release of odors into ambient air via a diffuser will lead not only to a small amount of therapeutic odor molecules being inhaled, but also to rapid habituation due to constant exposure. As a result, any positive effects there might be are lost or greatly reduced (Chaudhury 2010). When working with scents therefore, an important aspect lies in the delivery method. This is where the AromaStick comes in: it delivers scents in a high molecular concentration directly to the nose, while greatly reducing exposure time. This has the additional advantage in that it forces the user to sniff, which is important for transporting scent molecules to the epithelium in the nose, the region where we "smell". At the same time the exposure time is kept to a minimum to avoid habituation. This makes AromaSticks 300% more effective than a scent released into ambient air (Schneider 2016).

By delivering refreshing eucalyptus and cooling menthol directly to the nose, AromaStick Refresh manages to cool, soothe and refresh the nose and clear the head quickly and effectively whether it's the height of summer or deepest winter.

AromaStick natural inhalers are not medicines and are not intended to be used in place of medicines to treat, alleviate or prevent a health problem or an illness. The purpose of this product information leaflet is solely to provide an introduction to the AromaStick and the essential oils it contains. AromaStick natural inhalers are intended to improve wellbeing in healthy individuals.

## References

Bastos Vasco PD, Gomes Antoniella S., Lima Francisco JB, Brito Teresinha S., Soares Pedro MG, Pinho Joao PM, Silva Claudijane S. Santos Armenio A., Souza Marcellus HLP, Magalhaes Pedro JC (2010). Inhaled 1,8-Cineole Reduces Inflammatory Parameters in Airways of Ovalbumin-Challenged Guinea Pigs. *Basic Clin Pharmacol*, 16

Buchbauer G, Jirovetz L, Jäger W, Dietrich H, Plank C. (1995) Aromatherapy: evidence for sedative effects of the essential oil of lavender after inhalation. *Z Naturforsch* 46(11-12):1067-72.

Burrow A., Eccles R., Jones AS. (1983) The effects of camphor, eucalyptus and menthol vapour on nasal resistance to airflow and nasal sensation *Acta Otolaryngolica* Jul-Aug;96(1-2); 157-61

Chaudhury Dipesh, Manella Laura, Arellanos Adolfo, Escanilla Olga, Cleland Thomas A., Linster Christine (2010). Olfactory bulb habituation to odor stimuli. *Behav Neurosci* 124(4), 490-499

Ito Satoru, Kume Hiroaki, Shiraki Akira, Kondo Masashi, Makino Yasushi, Kamiya Kaichiro, Hasegawa Yoshinori (2008). Inhibition by the cold receptor agonists menthol and icilin of airway smooth muscle contraction. *Pul Pharmacol Ther* 21(5):812–817

Juergens UR, Stöber M, Schmidt-Schilling L, Kleuver T & Vetter H (1998). Antiinflammatory effects of eucalyptol (1.8-cineole) in bronchial asthma: inhibition of arachidonic acid metabolism in human blood monocytes ex vivo. *Eur J Med Res*, 3:407-412

Kenia Priti, Houghton Tom, Beardsmore Caroline (2008) Does inhaling menthol affect nasal patency or cough? Pediatr Pul 24

Laude EA, Morice AH & Grattan TJ (1994), The antitussive effects of menthol, camphor and cineole in conscious guinea-pigs. *Pul Pharmacol*, 7:179-184

Lee Kwang-Geun, Shibamoto Takayuki (2001) Antioxidant activities of volatile components isolated from Eucalyptus species *J Sci Food Agr* 25

Nishino T, Tagaito Y., Sakurai Y. (1997). Nasal inhalation of I-menthol reduces respiratory discomfort associated with loaded breathing. Am J Resp. Crit Care 156(1):309-13

Plevlova J, Kollarik M., Poliacek I., Brozmanova M., Surdenikova L., Tata M., Mori N., and Canning BJ (2013). The role of trigeminal nasal TRPM8-expressing afferent neurons in the antitussive effects of menthol. *J App Physiol*, 15

Sadlon AE, Lamson DW. (2010) Immune-modifying and antimicrobial effects of Eucalyptus oil and simple inhalation devices. *Alt Med Rev* 15(1):33-47

Schneider R (2016), There is something in the air: Testing the efficacy of a new olfactory stress relief method (AromaStick®). Stress Health 32(4): 411-426

Stimpfl T, Nasel B, Nasel C, Binder R, Vycudilik W & Buchbauer G (1995). Concentration of 1,8 cineole in blood during prolonged inhalation. *Chem Senses*, 20:349–350

Szelenyi I., Geisslinger G., Polymeropoulos E., et al. (1998). The real Gordian knot: Racemic versus pure enantiomers. *Drug News Perspect*, 11:139.