

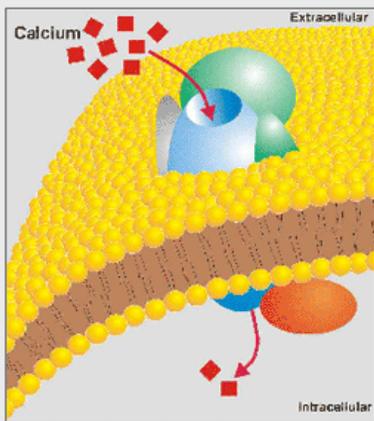
Liquid Ice

Anti-Aging Sensory Ingredient ...freeze away lines and wrinkles

Liquid Ice blends are synergistic mixtures of cooling actives which provide a continuum of tingling and cooling sensations on the skin without a menthol odor. The sensory effects are both instant and long, lasting hours when formulated into bases containing water, including emulsions and gels.



Liquid Ice is an excellent ingredient for sensory skin care and its suggested applications include: anti-aging creams, shaving products, after shaving lotions, cooling splashes, lip products, cleansers, moisturizers, toners, body splashes, and scalp invigorators.



WHY WRINKLE CREAMS?

Liquid Ice can boost sensory performance of instant anti-wrinkle creams by interacting with calcium ion activity.

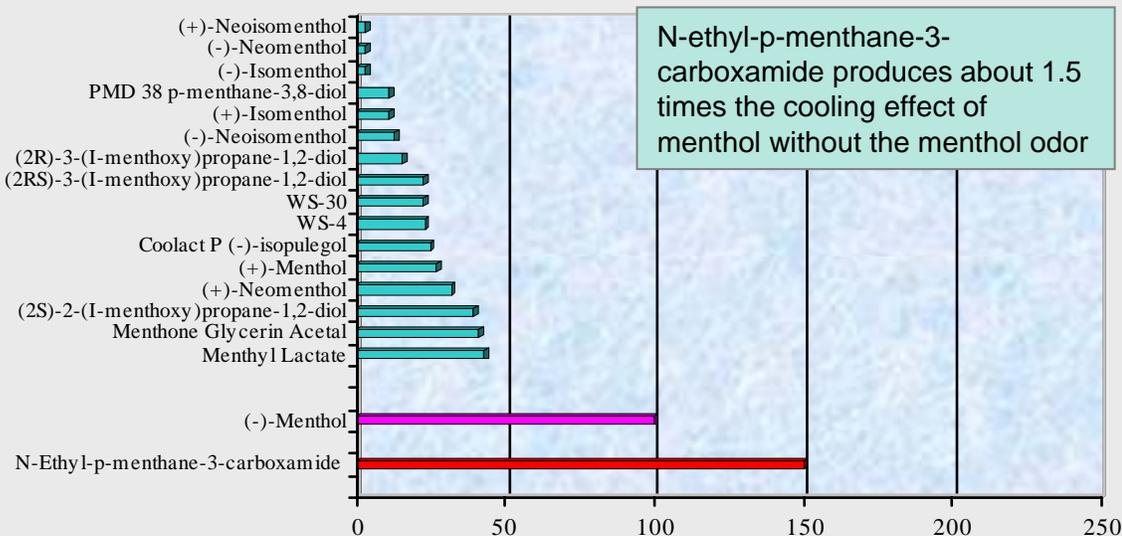
According to a study conducted by Gordon Reid & Maria-Luiza Flonta at the University of Bucharest, cooling compounds stimulate the entry of Ca^{2+} thus increasing the intracellular Ca^{2+} concentration in cold-sensitive neurons. Stimulation of these cold receptors is simply the sensitization of the cold-induced inward Ca^{2+} current.

This calcium activation may have significant *secondary benefits for anti-aging*. The National Cancer Research Institute (NCRI) has done exhaustive studies on the functions of calcium within the skin. They observed that people with low skin calcium content exhibit a greater incidence of premature aging of skin and a greater incidence of skin cancer. High calcium levels and calcium activity in skin also has been linked with numerous skin benefits such as healthy cell turnover, regulation of cell differentiation, regulation of normal skin color by melanocytes (pigment producing cells), regulation of lipid barrier processes, and the production of the skin's own age-protective antioxidants.

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Approximate Relative Cooling Strengths vs Menthol (as 100)



Sources: Dr. Mark Erman (Presentation of Flavor Chemists – Dec. 4, 2003) & Personal Communication & Takasago patents

- **Liquid Ice BG** combines the powerful cooling effect of N-ethyl-p-menthane-3-carboxamide and Menthyl PCA. On contact with skin and moisture, it releases the natural moisturizing factor, pyrrolidone carboxylic acid thus keeping your skin cool and hydrated.

INCI: Butylene Glycol (and) Menthyl PCA (and) Ethyl Menthane Carboxamide

- **Liquid Ice II BG** works with the combination of N-ethyl-p-menthane-3-carboxamide and Menthyl lactate, as a cost-effective material that provides long lasting cooling and freshness with no odor.

INCI: Butylene Glycol (and) Menthyl Lactate (and) Ethyl Menthane Carboxamide

Recommended use level: 2-5%

Add to emulsion after emulsion is formed, below 40C

If used in hydro-alcoholic products, use copious amount of alcohol and glycols for solubility.