



## PATIENT INFORMATION LEAFLET: methylisothiazolinone

**Your patch test shows that you have a contact allergy to :** methylisothiazolinone

**Synonym(s):** (industrially used) Neolone™, MI

**Definition:** Methylisothiazolinone (MI) or 2-methyl-4-isothiazolin-3-one (MI) is a preservative (biocide); it belongs to a group of preservatives called “isothiazolinones”.

It can be used on its own or as a part of the mixture methylchloroisothiazolinone (MCI) / methylisothiazolinone (e.g. Kathon® CG, in which MCI and MI are present in a 3:1 ratio).

Contrary to MCI, which is always used together with MI, the latter can be used on its own.

### **Use and occurrence:**

- In the EU and UK *leave-on* cosmetics (e.g. day cream) may no longer contain MI or MCI/MI whereas *rinse-off* cosmetics may still contain MI or MCI/MI in a maximum concentration of 15 ppm: shampoos, conditioners and other haircare products, bath and shower gels, liquid soaps and greasy soap tablets, skin cleansers, make-up removers, wet wipes (including baby wipes and moist toilet paper), mouth washes, maintenance products for dental prostheses.
- leave-on cosmetics (e.g. day cream, sunscreen), bought outside the EU/UK or over the internet, may still contain MI or MCI/MI.
- medically used lubricants, ultrasound gels and wet wipes, medical devices with a gel component (e.g. waist reduction belts) and (sexual) lubricants.
- household and industrial liquid detergents, cleaning products, washing up liquids, laundry softeners, ironing waters, toilet fresheners and maintenance products for textile (e.g. textile sprays to mask odours or to make garments wrinkle-free).
- waterbased paints, varnishes, gloss products and polishes (e.g. maintenance products for cars, boats, etc.), glues (e.g. wallpaper glue, shoe glue) and glue removers, adhesives, plasters.
- wood cleaning and maintenance products.
- gardening and do-it-yourself (DIY) products; car, windscreen and domestic maintenance products of all kind; antifungal coatings of car tyres and seats.
- fillers (e.g. for plastering or floor tiling); pottery.
- printing inks and toners.
- metal cooling fluids, coolants and cutting oils.
- veterinary products (e.g. dog shampoo).
- textiles, leather, fur, carpets, textile and gel mattresses, aqueous solution used in water beds.
- spectacle frames, bath sponges, antibacterial insoles for shoes, gloves (leather, rubber) and (compression) stockings.
- contaminated articles and objects (e.g. sofas, toilet seats, towels, garments, etc.) treated with detergents, sprays, balms etc. containing isothiazolinones.
- pesticides.
- radiographic materials.
- fuels (gasoline, diesel).
- industrial use of MI may include: polymer (plastic) solutions (e.g. to manufacture chopping boards, rubbish bags), adhesives, latex (rubber) solutions, disperse organic pigments, textile



processing fluids, paper and cardboard industry (e.g. in paper pulp), in the production of medium density fibreboard (MDF), production of water softeners, air fresheners, milk and water industry, and laboratories.

**Remarks:**

- Although some skin care products are labelled as not containing MI or MCI/MI, these may be mislabeled and contain (high) concentrations of MI or MCI/MI; the (hidden) preservation of individual cosmetic ingredients with MI might occur.
- Patients allergic to MI, or MCI/MI, might experience (transient) photosensitivity, meaning that they become less tolerant to sunlight, resulting in itch and/or rash occurring on sun-exposed skin areas.
- Patients weakly allergic to MI might sometimes still tolerate rinse-off skin care products, such as shampoos and conditioners.
- As nearly all water based paints contain isothiazolinones (often MI, but also MCI/MI and benzisothiazolinone and/or octylisothiazolinone), patients exposed to freshly painted rooms may experience skin rash and/or respiratory problems.
- Related isothiazolinone derivatives include: methylchloroisothiazolinone (MCI), 1,2-benzisothiazolin-3-one (BIT, Proxel<sup>®</sup>), 3-ethylamino-1,2-benzisothiazole HCl (Ectimar<sup>®</sup>), 2-n-octyl-4-isothiazolin-3-one (OIT, Skane M-8, Kathon<sup>®</sup> LM, Kathon 893 and Kathon 4200) and dichloro-octylisothiazolinone, often used in industrial applications.
- Patients sensitized to MI will also have to avoid products preserved with MCI/MI. Occasionally, such patients may show skin reactions to products containing OIT; this is a “cross-reaction”. Cross-reactions to BIT seem to occur infrequently. Your patch tests will indicate whether you are also contact-allergic to BIT and/or OIT and whether you should avoid these or not.
- (Chronic) urticaria and urticarial skin lesions have rarely been associated with contact allergy to MCI/MI and/or MI

*Disclaimer: Always check your products as these lists can never be complete and ingredients change.*