



Mala'Kîte™

Protective mineral complex



People make our name



Mineral Matters™



Mala'kîte™ is a protective copper complex that boosts cellular defense for an anti-aging and detoxifying effect.

This liquid stone extract helps to protect the skin and hair against environmental aggressions.

A source of copper

Originated from Central Africa, generated within zones of weathering in copper deposits, malachite is an hydrated copper carbonate (CuCO_3).

Copper is an important trace element which plays a recognized biological role in the skin.

Strong anti-oxidant properties throughout the skin

Action on keratinocytes: involved in the synthesis of keratin

Action on fibroblasts: increases the amount of collagen and elastin produced

A liquid stone extract

A symbol of creativity and change, malachite known as the sacred stone of Ancient Egypt, has been used for thousand of years as a colorant and skin treatment.

Mala'Kîte is the result of a special process combining a grinding phase and mineral chemistry technology to extract natural copper from the stone and make it bio-available for the skin.

Inspired by its historical uses, Gattefossé has transformed malachite into **Mala'Kîte™**, a protective copper complex which adds natural color to formulations.

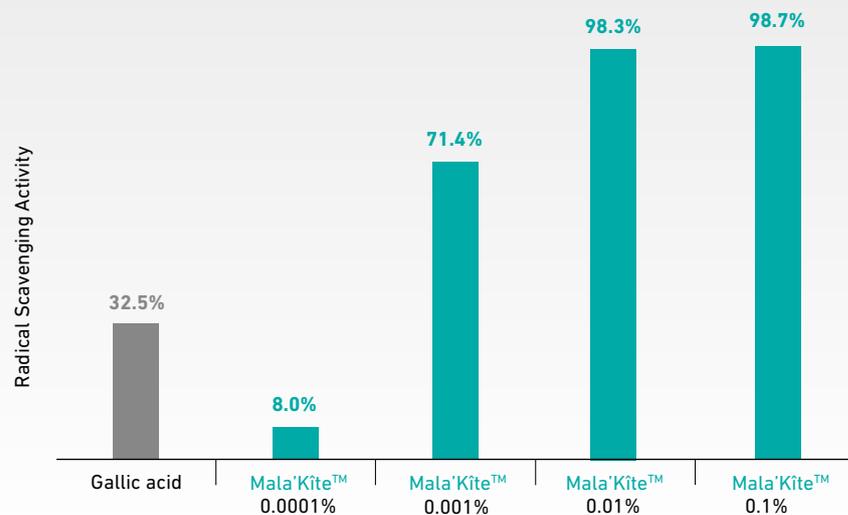
Cell defense booster

Oxidative stress refers to an increase in free radicals, which causes irreversible damage to the cells. Each cell possesses its own enzymatic pool whose role is to eliminate free radicals.

► Effects of Mala'Kite™ upon these cellular protection systems have been studied and are presented hereafter.

Anti-oxidant protection

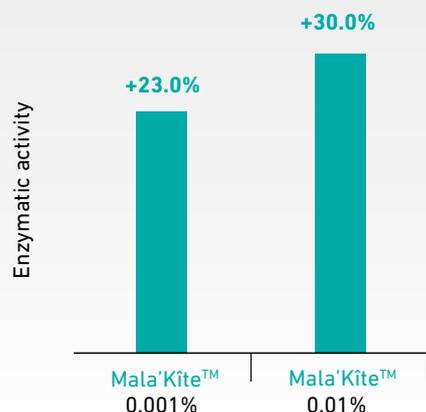
In the cells, oxidative stress generates superoxide anion release, one of the most highly reactive oxygen species. The anti-oxidant power of Mala'Kite™ is assessed *in vitro* by studying the superoxide anion quenching activity.



Mala'Kite™ inhibits superoxide anion up to 98% with a dose-dependent effect.

Cell detoxification

Glutathione reductase enables the regeneration of reduced glutathione (GSH), a major cellular anti-oxidant, which traps toxins, solvents and heavy metals. Cell detoxification is demonstrated *in vitro* by studying the activity of glutathione reductase.

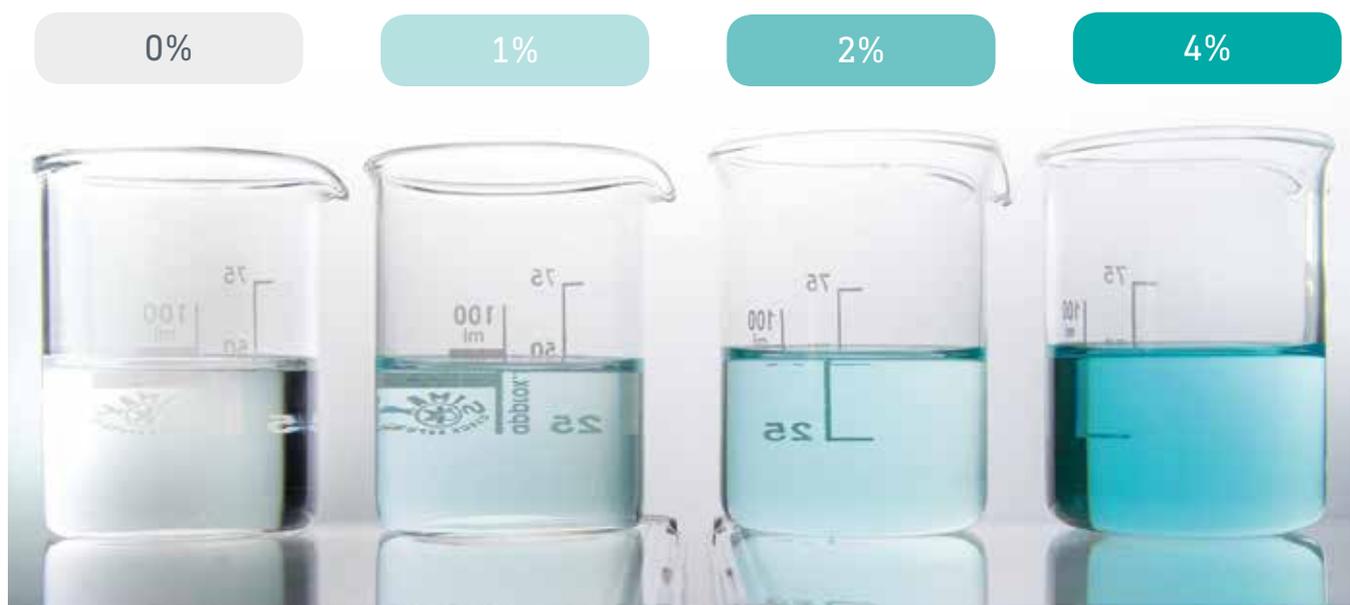


Mala'Kite™ boosts glutathione reductase activity up to 30% with a dose-dependent effect.

A touch of blue

Natural colorant

Mala'Kîte™ brings a spectacular blue lagoon color to formulations. Dose-dependent, this color, used in toners, serums or emulsions, is perfectly stable over time.



Mala'Kîte™ in an aqueous gel

Easy to formulate

Characteristics

- ▶ Aqueous extract
- ▶ Blue liquid
- ▶ Faint odor
- ▶ Preservative-free

Process

- ▶ Soluble in water - Insoluble in oils
- ▶ In presence of unsaturated vegetable oils, use a powerful antioxidant and/or replace with saturated oils such as Labrafac™ CC
- ▶ Add during the final step (RT)

Mala'Kîte™ acts as a stable and natural colorant, giving a beautiful blue tint to formulations.



Mala'Kîte™

is a copper complex extracted from the beautiful malachite stone. A powerful free radical scavenger, it boosts cellular defenses offering protection and detoxifying benefits.

Mala'Kîte™ is proof that plants are not the only source of natural actives.

Gattefossé applies a targeted technology to extract the active fraction from mineral sources and make it bioavailable to the skin.

Claims

- Anti-oxidant
- Detoxifying
- Protects skin and hair against environmental aggressions
- Natural and stable blue colorant

Applications

- Skin care (day and night products)
- Anti-aging and anti-pollution lines
- Hair care (protective treatments)
- Sun care (aftersun products)
- Spa lines

Use level

1-5%

INCI: Water (and) Malachite Extract

Worldwide approval for cosmetic applications

Listed on IECIC (Inventory of Existing Cosmetic Ingredients in China) 2015

The information given in this brochure is presented in good faith and we believe that it is correct at the moment of printing, but no warranty as to accuracy of results or fitness for a particular use is given. It cannot substitute for indispensable preliminary tests that must be conducted to ensure product suitability for each intended use. Nothing herein shall be construed as a recommendation or license to use any information that conflicts with any patent or trademark of our company or others. We make no representations or warranties, express or implied that any use of this information will not infringe any such patent or trademark. The user's attention is also drawn to the possible risks incurred if a product is used for a purpose other than its designed purpose. The user shall be solely liable for the precautions taken relevant to the use made of the products. This information does not exempt the user from ensuring that he may possibly come under other obligations pursuant to laws or regulations other than those indicated relating to the possession and manipulation of the product for which he shall be solely liable.



www.gattefosse.com



Corporate Headquarters

36 chemin de Genas - CS 70070 - 69804 Saint-Priest Cedex - **France**
+(33) 4 72 22 98 00