

Mandelic acid

R.L. Chemicals Industries PVT, Ltd.

Product description

Mandelic acid is an aromatic alpha hydroxy acid belonging to the second generation of hydroxy acids: the peeling power without the disadvantages.

The mandelic acid molecule is larger than the glycolic acid molecule so does not penetrate deeply.

Despite its pKa of 3.41, stronger than glycolic acid, it is generally not irritating and well tolerated even by sensitive skin.

Mandelic acid has been used in medicine as an antiseptic: it's a nontoxic substance after being ingested orally.

Properties

- Skin texture improvement (fine wrinkles and lines) without any irritation or erythema compared to results based on glycolic acid preparations
- Lightening action improves quickly (even dermal and epidermal melasma) with no adverse effects. Does not cause an inflammatory response or hyperpigmentation: suitable for dark and sensitive skin
- Produces less prickling sensation during application: suitable for sensitive skin
- Antibacterial effects: ideal treatment for acne or occasional breakout

Applications

- Peeling
- Anti-ageing products
- Rejuvenating photo-aged skin
- OTC products: pimples, inflammatory and adult acne, rosacea, hyperpigmented skin, melasma
- Pre and post-laser treatment (preventing gram-negative bacterial infections)

Technical data

INCI name	Mandelic acid
Chemical description	S(+) Mandelic acid
CAS number	17199-29-0
Molecular formula	C ₈ H ₈ O ₃
Molecular weight	152.14
Appearance	White crystalline powder
Solubility	Soluble in water
Melting range (°C)	131–134
pKa	~3.41
Recommended average levels	Up to 40% for resurfacing peeling ~10% for daily uses Buffer pH 3 ~ 4

Mandelic acid structure

