

## Butyl Resorcinol

### Description

Alkyl resorcinols widely occur in nature and are known to be biodegradable. They are present in significant amounts in the bran fractions of wheat, rye, and other cereals. Our Butyl Resorcinol is chemically derived and is a strong human tyrosinase inhibitor. Due to its structure, it has an excellent bioavailability and is effective as skin lightener, providing an even tone to the skin. It can be used as treatment against age spots and other facial hyperpigmentation as well as for melasma treatment. Butyl Resorcinol also stimulates the synthesis of glutathione reductase. It can be used as skin protection agent due to its strong effect against H<sub>2</sub>O<sub>2</sub> induced DNA damage. Studies show, that 4-n-butylresorcinol has an excellent effect on age spot lightening and is much more effective than other resorcinol derivatives. Tyrosinase plays a key role in melanogenesis as it regulates the rate-limiting step of melanin production. Butyl Resorcinol has an inhibitory effect on the melanogenesis of cultured B16 melanoma cells by its direct inhibition of tyrosinase activity, as well as the suppression of tyrosinase synthesis, without inducing any cytotoxicity.

4-n-Butylresorcinol is a safe and cost-effective skin lightener. In comparison to other well-known-skin whitening agents it is much more effective and provides good stability especially in emulsions and other cosmetic formulations. According to currently available test data, the product is not showing any unwanted side effects.

### Efficacy

- reduces hyperpigmentation
- promotes lightening and an even skin tone on all skin types
- diminishes senile lentigo
- reduces age spots
- minimizes liver spots
- reduces the degree of skin tanning after UV exposure
- acts as an antioxidant

### Appearance

white to beige or pink powder or crystals

### INCI

4-Butylresorcinol

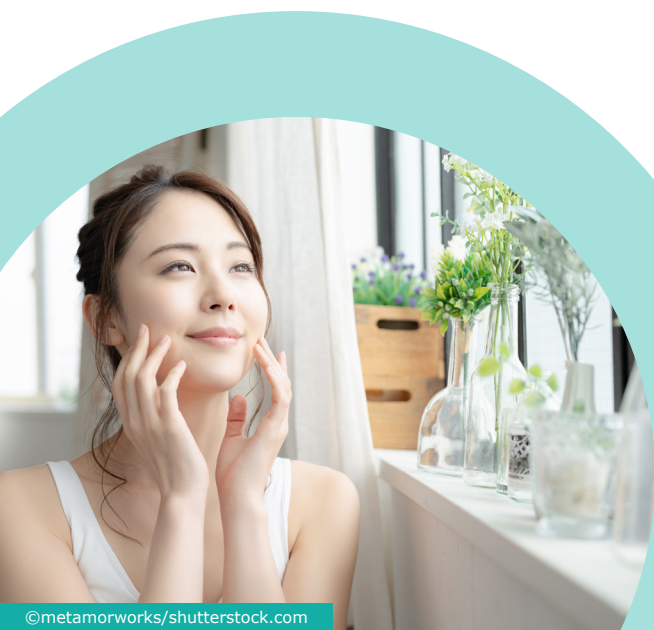
### Registration

CAS-No.....18979-61-8

EC-No.....606-191-2

### Preservatives / Stabilizers

none

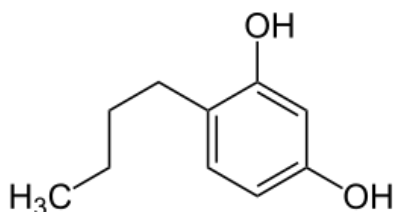


Nature needs no cosmetics,  
but cosmetics need nature

## Butyl Resorcinol

### Characteristics

purity.....>= 99.0 %  
water.....<= 1.0 %  
melting point.....49°C - 52°C



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molecular formula.....C<sub>10</sub>H<sub>14</sub>O<sub>2</sub>  
molecular weight.....166.22 g/mol<sup>-1</sup>  
synonym:  
1,3-dihydroxy-4-n-butyl benzene, rucinol, 4-butyl  
-benzol-1,3-diol, 4-n-butylresorcin, 4-butyl-1,3-  
benzoldiol

### Application

daily cosmetic products  
creams and lotions  
face masks  
gels and ampoules  
body care  
soaps

### Application concentration

skin care formulations.....0.05 – 0.2 %  
soaps (and other rinse off products)...0.5 - 1.0 %

### Incorporation

Butyl Resorcinol is soluble in most organic solvents and slightly soluble in water. Recommended pH range is 6.3 - 7.2. Butyl Resorcinol tends to turn pinkish when exposed to air and light. For better stability of the formulation the use of an anti-oxidant and UV absorber is recommended.

### Toxicology

non hazardous in normal use concentration  
pure raw material causes skin irritation and serious eye irritation

### Storage & Shelf life

Butyl Resorcinol should be stored in closed containers in a dry and light protected place at 10 - 25°C. Keep away from high temperature and sun light.

In closed original containers the shelf life is 24 months.