Piperine is 3-9% of black pepper. Black pepper’s ‘hot’ taste is due to piperine; it acts like capsaicin, the compound in chilli peppers that causes their spiciness, though it is only 1% as hot. It triggers tongue nerves which cause the sensation of heat. Piperine can irritate nerve endings in the nose, causing sneezing.

Piperine can be used as a repellent against animals, and combined with other compounds can be used in insecticides against flies, lice and various other pests. Derivative compounds, such as piperine-based phenylsulfonylhydrazones, can also show potent delayed insecticidal activity.

Black pepper was traditionally used as a remedy for constipation and diarrhoea due to its piperine content. It increases bioavailability of some medications, and also has some analgesic, anti-inflammatory, anti-mutagenic and anti-tumour properties. A piperine analogue, antiepilepsine, can be used in epilepsy treatment.

Piperine is added to brandy in small amounts as a flavouring additive, in order to impart a pungent taste. Some of the peppery flavour, however, comes from small amounts of acrolein which can form during distillation. Piperine is also found in trace amounts in several foods, including cheese, sugar, and several meats.