



NEOHESPERIDINE DC

Neohesperidine DC (INS 959, E 959) is a low/no calorie sweetener and flavour enhancer which may be produced by hydrogenation of neohesperidine, a flavonoid occurring naturally in bitter oranges. Neohesperidine DC is 1500-1800 times sweeter than sucrose at threshold levels. At practical use levels, it is about 400-600 times as sweet as sucrose.

Neohesperidine DC is a flavonoid dihydrochalcone. While neohesperidine DC has not yet been found in nature, structurally related flavonoids and their corresponding dihydrochalcones occur naturally in many plants. Ingested, neohesperidine DC is metabolised by the intestinal flora, yielding the same or similar breakdown products as its naturally occurring analogues.

In Europe, the safety of neohesperidine DC was lastly assessed in 2022 by the European Food Safety Authority (EFSA). The Acceptable Daily Intake (ADI) set by EFSA is 20 mg/kg body weight. Neohesperidine DC is approved for a variety of uses in foods, beverages and tabletop sweeteners in the EU under Annex II of Regulation 1333/2008.

Approvals as a flavour enhancer exist in countries such as the United States, Japan, Australia and New Zealand, and further approval is being sought elsewhere.