

LOW/NO CALORIE SWEETENERS: SAFETY & REGULATION

LOW/NO CALORIE SWEETENERS ARE...



food ingredients such as acesulfame-K, aspartame, cyclamate, saccharin, sucralose or steviol glycosides



used in foods and beverages in place of sugar to provide sweet taste with fewer or zero calories



a helpful tool for sugar reduction and food reformulation

LOW/NO CALORIE SWEETENERS ARE AMONGST THE MOST THOROUGHLY RESEARCHED INGREDIENTS WORLDWIDE AND THE MOST PROMINENT FOOD SAFETY BODIES AROUND THE WORLD HAVE CONSISTENTLY CONFIRMED THEIR SAFETY.^{1,2,3}

US FOOD AND DRUG ADMINISTRATION (FDA)

EUROPEAN FOOD SAFETY AUTHORITY (EFSA)

JOINT FAO/WHO EXPERT COMMITTEE ON FOOD ADDITIVES (JECFA)



HOW IS SAFETY EVALUATED?

As with all food additives, for a low/no calorie sweetener to be approved for use on the market, it must first undergo a safety assessment by the competent food safety authority. To determine their safety, independent experts thoroughly review and assess collective research and data on the chemistry, kinetics and metabolism of the substance, the proposed uses and exposure assessment, as well as toxicological studies. Only when there is strong evidence of no safety concern a food additive is permitted for use in foods and beverages.





WHAT IS THE ACCEPTABLE DAILY INTAKE (ADI)?

IN THE APPROVAL PROCESS OF FOOD ADDITIVES, FOOD SAFETY AGENCIES ESTABLISH AN **ACCEPTABLE DAILY INTAKE (ADI)**. THIS REPRESENTS THE AMOUNT OF A LOW/NO CALORIE SWEETENER THAT CAN BE SAFELY CONSUMED EVERY DAY THROUGHOUT A PERSON'S LIFETIME WITHOUT HEALTH RISK.

THE ADI IS CALCULATED TO LEAVE A MARGIN OF SAFETY. IT ALSO TAKES INTO ACCOUNT SENSITIVE SUB-POPULATIONS, INCLUDING E.G. CHILDREN OR ELDERLY. THEREFORE, IT CAN BE SAFELY USED BY REGULATORS AS A REFERENCE FOR ALL POPULATION GROUPS.⁴

A RECENT REVIEW OF THE GLOBAL LITERATURE CONCERNING THE INTAKE OF THE MOST COMMONLY USED LOW/NO CALORIE SWEETENERS INDICATED THAT LEVELS OF EXPOSURE ARE GENERALLY WITHIN THE ADI LIMITS FOR THE INDIVIDUAL SWEETENERS.⁵



References:

1. <http://www.fao.org/food/food-safety-quality/scientific-advice/jeffa/en/>
2. <http://www.efsa.europa.eu/en/topics/topic/sweeteners>
3. <https://www.fda.gov/food/food-additives-petitions/high-intensity-sweeteners>
4. More information about ADI: <https://www.efsa.europa.eu/en/topics/topic/food-additives>
5. Martyn D, Darch M, Roberts A, et al. Low-/No-Calorie Sweeteners: A Review of Global Intakes. *Nutrients* 2018; 10(3): 357

