PAN-India Survey Results on Trans-fat in different Food categories released by FSSAI

New Delhi, September 20, 2021: Food Safety and Standards Authority of India (FSSAI) has mandated to reduce the limit of industrially produced trans-fats, to not more than 2% to make the country free from the industrially produced trans-fats by 2022, a year ahead of the WHO guidelines. Compliance with the mandatory national limits on industrially produced trans-fats has to be effectively enforced to eliminate them from the food chain. Industrially produced trans-fatty acids develop by addition of hydrogen to liquid vegetable oils in order to convert them into semi-solid or solid state, and also to increase the shelf life of such oils. Industrially produced trans-fats are largely present in partially hydrogenated vegetable fats/oils, vanaspati, margarine and bakery shortenings, and can also be found in refined oils, baked products, fried foods and composite foods.

Trans-fat regulation to limit the amount of industrially produced trans-fats containing trans-fatty acids in food products has been enacted by many countries. These regulations were motivated by numerous studies that pointed to their significant negative health effects. It is accepted that trans-fat in the diet is a contributing factor for several diseases, including cardiovascular disease, diabetes, and cancer. Trans-fat raises bad cholesterol (LDL) levels and lowers good cholesterol (HDL) levels in a human body which in turn, increases the risk of heart attacks and stroke. As per WHO, increased intake of trans-fat (>1% of total energy intake) is associated with increased risk of coronary heart disease mortality and events. Trans-fat intake is responsible for approximately 500,000 premature deaths from coronary heart disease each year around the world. In light of these studies, FSSAI carried out a baseline survey for presence of industrially produced trans-fatty acid content in the selected food categories in chosen cities and districts across India in partnership with Quality Council of India (QCI).

Samples of various packaged food items under six pre-defined food categories (number of samples given against each product category) mentioned below were collected from 419 cities/districts across 34 States/UTs.

• Category 1 - Sweets, Toppings and Chocolates: 1,051
• Category 2 - Fried Foods: 1,061
• Category 3 - Bakery and Confectionary products: 1,072
• Category 4 - Frozen Foods: 973
• Category 5 - Composite Foods: 1,019
• Category 6 - Oils, Vanaspati, Shortenings and Margarine: 1,069

In all, 6,245 samples of packaged products were collected on a random basis to ensure diversity and sampling of local packaged foods from different strata of food market. The trans-fat content was
determined based on the sum of trans fatty acid (TFA) isomers, i.e. Elaidate and Linoelaidioate, and calculated in terms of fat content in the processed food samples in selected NABL accredited testing laboratories.

The results revealed that only 3.14% (196 samples) contained trans-fat exceeding 2%. About 90% (176 samples) of the 196 samples that exceeded 2% trans-fat belonged to the category 6 (Oils, Vanaspati, Shortenings and Margarine). The analysis of 5176 samples collected from the other five categories of food products (Category 1-5) revealed that nearly 0.4% (20 samples) contained more than 2% trans-fat. In category 6, comprising of Oils, Vanaspati, Shortenings and Margarines, 100 samples out of a total of 1,069 food products analysed had trans-fat content of more than 2% and less than 3%, while 76 samples contained more than 3% trans-fat.

The findings of the Survey revealed that the Food Processing Industry is positive about FSSAI’s regulation for eliminating the industrially produced trans-fats in foods by 2022. The survey results demolish the perception of excessive usage of industrial trans-fat in processed food products. This study has shown that India is well set to achieve its mandate of eliminating industrially produced trans-fats by 2022.

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