SMOKE FLAVOURINGS FACTS

The Sustainable And Healthier Alternative For Smoked Foods

Smoke flavours have been used to improve the safety, flavouring, and other organoleptic characteristics of food dating as far back as the Roman Empire. Today, Smoke Flavouring Primary Products (SF PPs), also known as liquid, purified or condensed smoke, serve as an alternative tool to the conventional smoking of foods. Manufactured using only wood, heat, and water under tightly controlled conditions, SF PPs and their derivatives can provide 100's of technical, sensorial matches to conventional smoking of foods.

SAFE USE

In 2013, the European Union (EU) established the first list of SF PPs authorised for use in or on foods for a period of 10 years. Since 2013 SF PPs are subject to some of the most stringent testing requirements of any food. There has been no new data to suggest that smoke flavours nor their derivatives pose any negative health effects to humans when used as intended. Over 20 years SF PP manufacturers have conducted and continue to conduct numerous scientific assessments to confirm the safe use of SF PPs when used as intended and environmental impact assessments validating the sustainability attributes.

WHERE

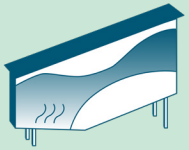
Are Smoke Flavours Used

There exist a wide range of products to address different food categories, e.g. meats, poultry, fish, cheese, snacks, sauces and plant-based meat alternatives. Thousands of unique smoke flavouring formulas exist globally in both dry and liquid applications. As described in the implementing legislation Regulation (EC) No 1321/2013, the smoking process is permitted by the atomisation of regenerated smoke flavours per GMP.

THE PROCESS

1. Sawdust Dryer

Smoke Flavour creation begins with sawdust which is dried to an optimal moisture content.



2. Pyrolysis

The sawdust moves to the smoke generator, where the wood is smoldered and a smoke cloud is created. A water source is introduced to the smoke environment resulting in a captured smoke condensate.

3. Separation

During phase separations, the water insoluble portions settle out in the form of a high-density 'primary tar fraction' away from the 'primary smoke condensate'.

4. Fresh Production Tank

The desired soluble smoke condensate, free-from 'primary tar fractions' is isolated via decanting and filtration.

5. Final Condensed Smoke

After moving through filtration steps and completing the quality control analytical procedures, the smoke condensates are approved to be packaged and sold for the food industry applications.

Best Available Technique in Europe

The use of condensed smoke flavours is most effective with respect to the prevention and/or the reduction of emissions and the impact on the environment, but decreases the environmental* burden in other categories, ie energy, water and wastewater.

*European Integrated Pollution Prevention and Control Bureau **(EIPPCB)**; BAT Reference Documents; Food, Drink and Milk Industries

BENEFITS

Environmental and Human Health

Compared to conventional smoking, the use of sf pps **reduces:**

CO2 emissions by

83%

Water consumption by

92%

Wastewater by

83%

Energy consumption by approximately

33% 40%

Health Benefits

The **EU Regulation on Smoke Flavourings** recognises that:
The use of smoke flavourings is generally considered to be of less health concern than the traditional smoking process, Regulation (EC) No 2065/2003, largely because PAH-rich portions and particulates are removed through the condensation process.