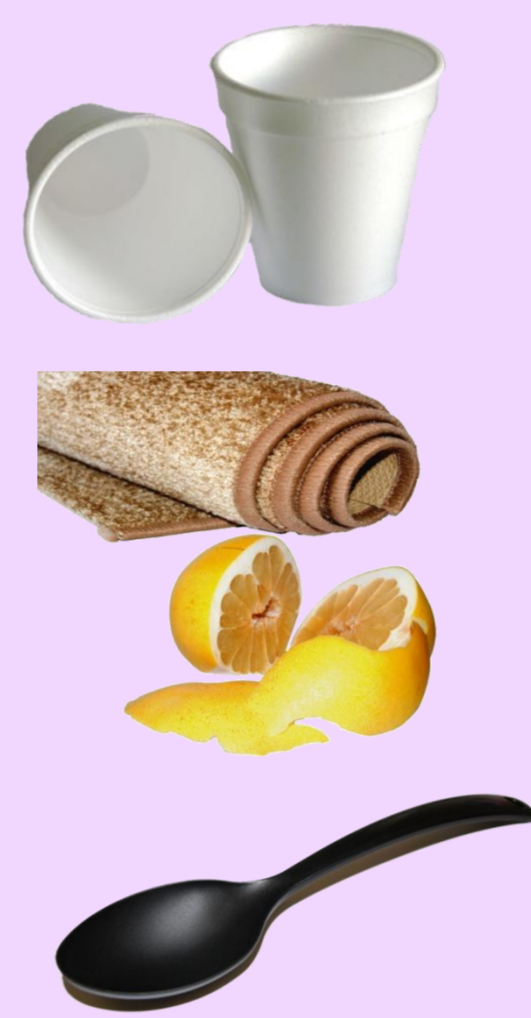




According to Art. 3 of the framework regulation 1935/2004/EC and Art. 3 of the GMP regulation 2023/2006/EC food contact materials should not transfer constituents to the packed food that brings about deterioration in the organoleptic characteristics therefor. This selection of an odour library presents some important food contact material related taints and may serve for panel training and quality control purposes.

Plastics/Elastomers

- Monomers
 - Styrene
- Styrene-butadiene rubber
 - 4-Phenyl-1-cyclohexene
- Thermal processing
 - Polyamide
 - Polyethylene
 - Polypropylene
- Corona treatment
 - Polypropylene (sotolon)



Styrene → musty

4-PCH → pomelo peel, carpet

Polyamide → burnt



Polyethylene → wax, burnt

Polypropylene → wax, burnt

Sotolon → 'Maggi', lovage



Additives and production aids

- Degradation products of
 - nucleating agents
 - 4-Methylbenzaldehyde
 - 4-Propylbenzaldehyde
 - peroxide crosslinker
 - Acetophenone
- Lubricating oil
 - 1,3-Dimethylnaphthalene



4-Methyl-BA → almond, marzipan



4-Propyl-BA → liquorice, hay



Acetophenone → flowery



1,3-DMN → jute sack

Printing inks and adhesives

- Solvents
 - Thinner
 - Ethyl acetate
 - Mineral oil
 - Retardants
 - 2-Butanone
 - Reactive diluters
 - Ethyl acrylate
- Cold sealing
 - Latex
- Reaction products
 - 2-Ethyl-5,5'-dimethyl-1,3-dioxane



Ethyl acetate → adhesive



Mineral oil → newspaper



2-Butanone → nail polish remover



Ethyl acrylate → dental filling, lacquer



Latex → fishy



2-EDD → blueberry, artificial fruity

Paper and board

- Lipid oxidation products
 - Hexanal
 - 2-Nonenal
 - γ-Nonalactone
- Lignin related compounds
 - 3-Propylphenol
 - 2,4,6-Trichlorophenol
 - Vanillin



Hexanal → grass, green



2-Nonenal → paper board, cucumber



γ-Nonalactone → coconut



3-Propylphenol → leather



2,4,6-TCP → medical, disinfectant



Vanillin → vanilla