

**Advice 13-2020 of the Scientific Committee established at the FASFC on a action limits for chemicals contaminants in food: 2-monochloropropan-1,3-diol (2-MCPD) and its esters, and 3-monochloropropan-1,2-diol (3-MCPD) and its esters**

**Background and terms of reference**

The Scientific Committee (SciCom) has been asked to propose action limits for 2-monochloropropan-1,3-diol (2-MCPD) and its esters, 3-monochloropropan-1,2-diol (3-MCPD) and its esters in baby food, chocolate spread, margarine, biscuits, sourdough bread and vegetable oils in foodstuffs.

Currently, a proposal is being prepared at European level on the establishment of maximum levels for the sum of 3-MCPD and its esters in vegetable oils and fats, fish oils and oils of other marine organisms, infant formulas and follow-on formulas and foodstuffs for special medical purposes for infants and young children.

**Method**

The SciCom has established estimated accepted concentrations (EAC) on the basis of scientific data. An EAC is a risk-based concentration limit that corresponds to the concentration of a substance a food may contain without the exposure to the substance through the high consumption of that food posing an appreciable risk or a concern for public health. The calculated EAC's can serve as a basis for the risk manager to establish action limits (opinion 15-2019, SciCom).

The SciCom calculates EAC's for 3-MCPD and its esters for each foodstuff of interest by dividing the toxicological reference value of 3-MCPD (its tolerable daily intake (TDI)) by the consumption data at the 95<sup>th</sup> percentile (P95) of the concerned foodstuff. This value was rounded according to mathematical rules.

Concerning 2-MCPD and its esters, there is not enough available toxicological data to calculate any EAC.

**Results**

The EAC's for the sum of 3-MCPD and its esters (expressed as 3-MCPD) in foodstuffs of interest are shown in the table below.

<b>Sum of 3-MCPD and its esters (expressed as 3-MCPD)</b>	
<b>Foodstuff(s)</b>	<b>EAC (µg/kg)</b>
Infant and follow-on formulae (liquid)	30
Processed cereal-based food for infants and young children	1 000
Ready-to-eat meal for infants and young children	150
Chocolate spread	700
Margarine	2 000
Biscuits	700
Sourdough bread	300
Vegetable oils in foodstuffs	3 000

### Conclusions

The SciCom calculated EAC's for the sum of 3-MCPD and its esters (expressed as 3-MCPD) in foodstuffs of interest. However, the SciCom has not been able to calculate EAC for the sum of 2-MCPD and its esters (expressed as 2-MCPD) because of a lack of toxicological data.

The EAC's can be used as action limits. The actions applied when these limits are exceeded are determined by the risk manager.

### Recommendations

The SciCom also recommends reporting the concentrations of 3-MCPD and its esters (expressed as 3-MCPD) as a sum in the Agency's database, in order to facilitate the comparison with the action limits. Furthermore, concentrations should all be expressed in  $\mu\text{g}/\text{kg}$  product rather than in  $\mu\text{g}/\text{kg}$  fat.

The SciCom also recommends that concerned operators identify and implement measures of mitigation for the formation of 3-MCPD and its esters in chocolate spreads, biscuits, sourdough bread and vegetable oils.

The full text is available on this website in dutch and in french.