



9.6. Exposure scenario 6: Service life (consumers) - Handling of silicone articles by consumers

Environment contributing scenario(s):		
CS 1	Handling of silicone articles by consumers	ERC 10a, ERC 11a
Consumer contributing scenario(s):		
CS 2	Handling of silicone articles	AC 0

Exposure scenario(s) of the uses leading to the inclusion of the substance into the article(s):

ES3: Use at industrial sites - Use of Karstedt concentrate in silicone polymer, silicone elastomer and silicone article production

ES4: Widespread use by professional workers - Use of silicone in professional settings

Further description of the use:

Many household utensils, which are in direct food contact, e.g. baking moulds, spoons, spatula, containers, gaskets and ice cube trays, are composed of silicone rubber. Baby soothers and feeding teats are also commonly made of silicone rubber.

Silicone rubbers are produced based on silicone fluids by cross-linking the linear PDMS molecules. The processes used are called high-temperature vulcanization (HTV) and room temperature vulcanization (RTV). During the room temperature vulcanization, silicone rubbers are synthesized by cross-linking linear silicones containing functional groups (e.g. vinyl or hydroxyl) in the presence of catalysts (e.g. platinum based) and suitable reagents. Karstedt concentrate in the final application is < 0.03%. This is below the cut-off values given in article 14, paragraph 2 of the REACH regulation:

“A chemical safety assessment in accordance with paragraph 1 need not be performed for a substance which is present in a mixture if the concentration of the substance in the mixture is less than:

(a) the cut-off value referred to in Article 11, paragraph 3 of Regulation (EC) No 1272/2008;

(b) 0,1 % weight by weight (w/w), if the substance meets the criteria in Annex XIII to this Regulation.”

As a consequence, a chemical safety assessment for the given consumer uses is not required.