

White lumps/granules observed in coconut oil is not paraffin

In the recent times there has been misinterpretation in social media regarding the quality of coconut oil while observing white lump formation during normal room temperature of 24-25°C. It may be noted that frozen coconut oil starts melting above 24°C and hence at temperature below 24°C it will be in solid state. In partially melted coconut oil, you may observe white clumps and above 3% of it may remain in the bottom as granules even at temperatures upto 40°C. The phenomenon of white lump formation in coconut oil is commonly found during winter in South India (especially in high range areas like Idduki, Wayanad) and Gulf countries. When the oil is heated above 40°C it would in melting of the granules. However semi solid particles may be visible when it returns to the previous temperature. It may clearly be noted that these white clumps are simply the natural crystalline structure of the saturated fat in coconut oil. It is also important to note that paraffin remains in solid state only below 0°C. Hence the claims in the media that "white lumps/ semi solid particles physically observed in coconut oil is wax" is totally baseless and misleading. In this regard the Coconut Board would like to clarify that the white lump formation has absolutely nothing to do with the quality of the coconut oil and it can be safely consumed. The Board would like to appeal to the consumers to refrain from being misled into such baseless misinterpretations shared in the social media.

The melting point of coconut oil is determined by the fatty acid content which is in the form of triglycerides. The triglyceride in coconut oil consists of a mixture of 10 different fatty acids. Each of the 10 fatty acids has its own melting points. Because of the various melting points of different fatty acids, coconut oil normally does not have a precise melting point. While 24.5°C is given as the melting point of coconut oil in reality. Portion of the coconut oil begins to melt a few degree lower or higher than 24.5°C. Therefore some of the coconut oil may start to crystallize at 24.5°C and some at 22.5°C. If the change in temperature is rapid the melting point appears to be more precise. If the change in temperature is slow, the oil will have bulk liquid and solid composition. The white clump formation does not in any way affect the quality of coconut oil and is the natural characteristic of coconut oil. The phenomenon of white lump formation in coconut oil is commonly found during winter in South India and Gulf countries.