

Are alcohol-based disinfectants kosher or halal

Questions on whether disinfectants are kosher or halal are being posed more and more frequently. These terms refer to dietary laws in the Jewish and Muslim faiths respectively. For this reason, food is primarily affected by these rules. As disinfectants are not intended to be consumed, they are not subject to these rules.

Generally, disinfectants do not come into direct contact with food, as they either rapidly vaporise or are thoroughly rinsed off. Nonetheless, when a company that produces kosher or halal products is certified, it is often asked whether kosher or halal disinfectants are used, because they may contain alcohol, which is not permitted or only allowed to a limited extent.

The reasoning behind this question is often the fear that the surfaces treated with disinfectants might no longer be "pure". However, the synthetic alcohol mostly used in disinfectants usually does not result in "impurity".

What is alcohol in terms of chemistry?

In organic chemistry, alcohols form a group of molecules with the function "-OH", the so-called hydroxyl group at the end of the carbon chain.

The simplest alcohol is methanol, also called methyl alcohol. However, there are a variety of different substances that chemically belong to the group of alcohols, which however display completely different properties, so that they have to be taken into consideration separately.

In layman's terms, especially against a religious background, the potable and intoxicating ethanol or ethyl alcohol is generally referred to as alcohol.

Ethanol is a natural product generated during the alcoholic fermentation of bacteria or fungi (e.g. yeast). Technically, the so-called synthetic ethanol is produced by means of direct catalytic hydration of ethylene or indirect hydration of ethylene by adding sulphuric acid and the subsequent hydrolysis of the formed ester.

S&M uses technically generated ethanol in its disinfectants to ensure constant quality.

What is kosher?¹

The kashruth refers to the comprehensive dietary laws included in the Holy Scripture, the Torah, and forms the basis of the so-called kosher diet. In terms of this, all meals are chosen, prepared and combined in

accordance with the traditional Jewish laws. Meals that meet all requirements are considered kosher (pure, permitted, suitable).

The dietary laws prescribe which type of meat may be consumed and which ingredients may be added. For a food product to be kosher, all components must be kosher, including all materials used in the process and which get into direct contact with the food. Moreover, great importance is attached to the careful preparation of the meals as well as to hygiene.

Alcohol is not forbidden in principle. However, for alcohol, e.g. wine, to be kosher, the grapes must have been picked and processed under the official supervision of persons of the Jewish faith. Whether this also concerns synthetically produced alcohol is not possible to establish exactly, as various possibilities of interpretation are possible. However, the use of synthetic alcohol is often considered to be less problematic.

Disinfectants do not come into direct contact with food because they dry rapidly or are thoroughly rinsed, so that no residues can get into the food. In many cases, however, products which do not contain any ethanol can be used.

What is halal?¹

The Muslim faith also has dietary laws. Among others, they are based on the Koran and show many similarities to kosher rules. However, in contrast to the kashruth, alcohol and other intoxicants are forbidden in principle.

Halal is an Arabic word and means "something that is permissible, allowed and endorsed". Food is called halal if it is permitted, pure and approved for consumption.

The opposite of halal is haram, i.e. "something that is inadmissible, forbidden and not endorsed". Particularly haram are certain animal species, especially pigs, all animals not slaughtered according to Islamic law, any blood as well as alcohol.²

Another term in this context is nadschis, meaning "impure". Just a few things are impure in themselves (e.g. pigs, dogs or faeces).

¹ This is an attempt to briefly explain the terms kosher and halal and to provide a first impression or insight. This document does not claim to provide a complete presentation of these complex topics.

² Regarding products which contain only very small amounts of alcohol without any intoxicant effect, there seems to be no general consensus; they are sometimes considered halal and sometimes haram.

However, everything can become impure after contact with something impure, but can then also be purified again.

All impure things are also haram, or forbidden to be consumed. However, not all food that is haram is also impure (e.g. a fish without scales is haram but not nadschis). As an ingredient, alcohol is definitely haram, independent of the method of production. The consumption of alcohol is thus forbidden in all instances.²

In contrast, nadschis only refers to natural alcohol, e.g. in wine, but not to synthetic alcohol such as in the disinfectants of S&M. As a result, things coming into contact with synthetic alcohol remain pure.

Thus, disinfection in food-processing companies with such alcoholic preparations is possible without the surfaces becoming impure or nadschis. However, if only because of general interest, methods such as thorough drying or rinsing should be used to ensure that the disinfectants do not get into the food.

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