



**Takhrij and Syarah Hadith of Chemistry:  
Legal Studies on the Use of Alcohol as a Solvent (Solvent) in Cough  
Medicine**

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**Abstract**

The purpose of this research is to discuss the hadith of the Prophet. about the law of using alcohol as a solvent (solvent) in cough medicines. This research method is qualitative through the takhrij and sharah hadith approaches with chemical analysis. The results and discussion of this study, although in fact alcohol is the main content of khamar so that the drink can cause the consumer to become drunk, alcohol when separated from the khamar is a different matter because of the different composition of particles and the way of making it. In terms of the hadith of the Prophet Muhammad, alcohol contained in cough medicine is permissible (mubah), because basically the Prophet's hadith regarding forbidden khamar is in the context of drinks that already contain an intoxicating element, so if you drink it in small amounts or in large quantities the law is haram. Meanwhile, in terms of its use as a solvent in cough medicines it is not the case if the levels remain within the predetermined limits, namely not more than 1%. The conclusion of this research is takhrij and syarah hadith of the Prophet. It is hoped that it will become a reference for Muslims to be more careful in consuming cough medicine, which is indicated to contain alcohol compounds whose levels reach more than one percent of its content. This study recommends related agencies to tighten supervision of halal labeling on medicinal products, so that people are not fooled into consuming products that can endanger public health.

**Keywords:** *Alcohol, Chemistry, Hadith, Syarah, Takhrij*

## Introduction

In general, the use of alcohol in consumer goods is still a polemic that confuses society to this day. This mistake does not only involve ordinary people, but also groups of academic experts and scholars. In this case, the groups involved can be divided between at least two groups. First, the group that accuses alcohol is an unclean substance which equals khamar and is then punished as haram. Second, those who consider holy alcohol because it is different from khamr even though it is not denied it is the main ingredient in the composition of khamar (Ramadani et al., 2018). Khamar according to language is all that removes reason. Meanwhile, according to the Shari'a, khamar means all that is intoxicating whether it is the feeling of grapes, dates, wheat flour, sharia, dzurrah, or the bubbling liquid of wine, very thick and frothy. It is called khamar because it is allowed to become alcoholic, and because it removes reason and covers it up, or because it confuses reason. Khamar is an evil item, because it eliminates reason. When consumed by someone, khamar will damage health, control his will, lust overcomes him so that it is very difficult for him to leave the drink (Ramadani et al., 2018).

There is a hadith of the Prophet SAW. With respect to Alcohol from HR. Muslim number 3670:

حَدَّثَنَا مُحَمَّدُ بْنُ الْمُثَنَّى وَمُحَمَّدُ بْنُ بَشَّارٍ وَاللَّفْظُ لِابْنِ الْمُثَنَّى قَالَ حَدَّثَنَا مُحَمَّدُ بْنُ جَعْفَرٍ حَدَّثَنَا شُعْبَةُ عَنْ سِمَاكِ بْنِ حَرْبٍ عَنْ عَلْقَمَةَ بْنِ وَايِلٍ عَنْ أَبِيهِ وَوَايِلِ بْنِ الْحَضْرَمِيِّ أَنَّ طَارِقَ بْنَ سُوَيْدٍ الْجَعْفِيُّ سَأَلَ النَّبِيَّ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ عَنِ الْخَمْرِ فَتَهَاها أَوْ كَرِهَ أَنْ يَصْنَعَهَا فَقَالَ إِنَّمَا أَصْنَعُهَا لِلدَّوَاءِ فَقَالَ إِنَّهُ لَيْسَ بِدَوَاءٍ وَلَكِنَّهُ دَاءٌ

Has told us Muhammad bin Al Mutsanna and Muhammad bin Basysyar and this is lafadz Ibn Al Mutsanna, both said; has told us Muhammad bin Ja'far has told us Syu'bah from Simak bin Harb from 'Alqamah bin Wa'il from his father Wa'il Al Hadlrami that Tariq bin Suwaid Al Ju'fi once asked the Prophet ﷺ about khamer, so he either forbids it or hates to make it. "Then he said," I make it only for medicine. "So he said," Khamer is not medicine, but it is a disease "(Narrated by Muslim).

Based on the explanation above, a research formula was prepared, namely the formulation of the problem, research questions, and research objectives (Darmalaksana, 2020a). The formulation of this problem is that there is a hadith from the Prophet. about the law on the use of alcohol as a solvent (solvet) in cough medicines. The research question is how the hadith of the Prophet about the law on the use of alcohol as a solvent (solvet) in cough medicines. The purpose of this research is to discuss the hadith of the Prophet. about the law on the use of alcohol as a solvent (solvet) in cough medicines.

**Research methods**

This research method is qualitative through literature and field studies (Darmalaksana, 2020b). Meanwhile, the approach applied is takhrij and syarah hadith (Soetari, 2015). The interpretation in this study used chemical analysis (Wiryawan et al., 2008).

In general, there are two stages of research on hadith, namely takhrij and sharah. Takhrij is the process of extracting a hadith from a hadith book to examine its validity, while sharah is an explanation of the hadith text with a certain analysis (Soetari, 2015). The field of chemistry itself, as a means of interpretation in this research, is a science that is developed based on research and is able to describe natural phenomena related to structure, properties, composition, dynamics, energy, and others (Sunggarani et al. 2014).

**Result and Discussion**

At first, a search was carried out through the hadith application regarding the keyword "Alcohol" until the hadith was found in Sahih Muslim book No.3670, as previously disclosed.

Table 1. List of Rawi Sanad

No	Rawi Sanad	Birth/Death		Country	Kuniyah	Ulama's Comments		Circle
		B	D			-	+	
1	Wa'il bin Hajar bin Sa'ad			Kufah	Abu Hunaidah		Shahabat	Tabi'in middle class
2	Alqamah bin Wa'il bin Hajar			Kufah			-Didn't mention it -Shaduuq -Mentioned in 'Ats Tsiqat'	Tabi'in ordinary people
3	Simak bin Harb bin Aus		123 H		Abu Al Mughirah	- There is something in the hadith - Many are wrong - Bad Memorization	-Tsiqah -Shaduuq tsiqah -Tsiqah	Tabi'in ordinary people
4	Syu'bah bin Al Hajjaj bin Al Warad		160 H	Bashrah	Abu Bistham		-tsiqah tsabat -tsiqah ma'mun - no one has hadith	Tabi'ut Tabi'in old people

No	Rawi Sanad	Birth/Death		Country	Kuniyah	Ulama's Comments		Circle
		B	D			-	+	
							better than him -amirul mukminin fil hadits -tsiqoh hafidz -tsabat hujjah	
5	Muhammad bin Ja'far		193 H	Bashrah	Abu 'Abdullah		-Tsiqah -Tsiqah -Mentioned in 'ats tsiqaat -Shaduuq	Tabi'ut Tabi'in ordinary people
6	Muhammad bin Al Mutsanna bin 'Ubaid		252 H	Bashrah	Abu Musa		-Tsiqah -shalihul hadits -Shaduuq -mentioned in 'ats tsiqaat -tsiqah masyhur -Minal huffaad -Tsiqah -Tsiqah Tsabat	Tabi'ul Atba' old people
7	Imam Muslim	204 H	261 H	Naisabur, Iran	Abul Husain		Imam Hadis	Mudawin

Table 1 is a list of the hadith narrators and sanad under study. Rawi is the narrator of hadith while sanad is the chain of narrators from companionship to mudawin, namely scholars who record hadiths in the hadith book (Soetari, 1994). According to the science of hadith, the requirement for authentic hadith is that rawi must be positive according to the comments of the scholars. If there is a commentary from a scholar who gives a negative assessment to one of the narrators in the sanad lane, then the hadith is a hadith dhaif (Darmalaksana, 2020d). Authentic hadith is a strong hadith while a weak hadith is a weak hadith (Soetari, 1994). The conditions of authentic hadith and sanad must be continued. If the chain of hadith is broken, then the hadith is a weak hadith. Evidence of a connected chain is the meeting between teacher and student. If there is no objective evidence, then the meeting between teacher and student can be seen from birth and death. If there is no data on births and deaths, then the predicted

average age of scholars is around 70-90 years. Meetings of teachers and students can also be seen from the life journey of history. If teacher and student are in the same place, then it is predicted that between teacher and student meet (Darmalaksana, 2020d).

The quality of this hadith is saheeh. Judged authentic by Ijma 'Ulama. Because, from the point of view of history, there are no scholars' comments that give a negative assessment. Indeed, Simak bin Harb bin Aus gave a negative assessment, but many more gave positive comments to him. Also this hadith can be strengthened by other hadiths that are spread in the book of hadith, such as in the book of Musnad Ahmad Numbers 18036, 18107, and 21464. This serves as a martyr and mutabi that strengthens the hadith about alcohol. Also from the side of the chain connected from friends to young. Although Wa'il ibn Hajar ibn Sa'ad and Alqamah ibn Wa'il ibn Hajar are not known when he was born and died, it is estimated that teachers and students met or were contemporaries and they were in one place, Kufah, assuming their average age of 90 years. Basically, the science of hadith has other parameters in providing reinforcement to hadith. Among other things, the hadith is called mutawatir in the sense that it is very popular when the hadith being studied is spread in several books of hadith (Soetari, 2015). The spread of this hadith serves as a martyr and mutabi. Martyrdom is another hadith of the same kind while mutabi is another chain of transmission (Darmalaksana, 2020d). The rest, as far as hadith is a priority of Islamic practice, it can be a proof even though its status is weak (Darmalaksana et al., 2017).

The scholars have given syarah which is an explanation of the content and meaning of the hadith (Darmalaksana, 2020c). According to scholars the first opinion says that Alcohol is not intoxicants. This opinion is supported by Shaykh Muhammad Rashid Ridha and some contemporary scholars. In this opinion there is a difference between intoxicants and alcohol. Khamar is made from the fermentation of fresh fruits such as grapes, wheat, dates, and grains. While alcohol comes from the wood, roots and fiber of sugarcane, orange peel and lemon are also present in each dough. Although alcohol is the main substance that causes intoxication in alcohol, but alcohol is not called alcohol, either in language or sharia.

In agreement with this, Muhammad Sa'īd al-Suyuti stated that alcohol is sacred. He considers comparing alcohol to intoxicants to be an irrelevant form of qiyas (al-Qiyas ma'a al-Fariq) and incorrect, because the arrangement of particles in it is different. If alcohol is contained in intoxicants then the cause of its haram is the intoxicants which are then intoxicating, but the alcohol remains different, because if separated from the intoxicants, then it is said to be as sacred as the alcohol contained in fruits and alcohol used as medicine. Muhammad Ibn Salih al-Uthaymeen

also concluded that alcohol mixed with small concentrations of drugs is not haraam, because it does not give effect. Alcohol is halal in medicine because of istihlak and because of illat (cause) that intoxicates alcohol does not exist, so the medicine is halal. Atiyah Shaqr also argues that the use of alcohol has become a necessity in the medical world, the manufacture of drugs. Alcohol is also used in the purification process (sterilization). Alcohol is also found in perfumes, used as a reaction in various chemical analyzes and others, so its use is purified. Sometimes, alcohol is used as an intoxicating drink, but its impurity is not a mutual agreement. On this basis, other products (including drugs) that contain alcohol are sacred.

The second opinion of the scholars is that alcohol is the same as intoxication. This opinion is supported by the majority of contemporary scholars and the fatwa of the Royal Scholars of Saudi Arabia, No. 8684 which reads: "Everything that when drunk in large quantities results in intoxication, then the substance is called intoxicants, whether in a small or large amount, either given the name of alcohol or given another name. The substance must be spilled and it is forbidden to use it for any purpose." Abu al-Walid Ibn Rusyd forbade the use of alcohol because it is compared to alcohol. Because alcohol and intoxication have the same illat that can cause to cover the mind even if consumed a little and not drunk can bring benefits. In addition, although alcohol contains benefits, but the harm in alcohol is greater than the benefits. Therefore alcohol is banned (Ramadani et al., 2018).

This hadith can also be explained according to the field of chemistry. In chemistry, an alcohol is an organic compound that has a hydroxyl group (-OH) attached to a carbon atom, which itself is attached to a hydrogen atom or another carbon atom. By substituting -OH to H from CH, CHOH is obtained which is known as methanol. The functional formula of Alcohol is OH with the general formula for ROH Alcohol where R is Alkyl or Alkyl group substitution. Alcohols that are often used as solvents are methanol, ethanol and isopropanol. Methanol is used as a solvent in paints, anti - freezers and other chemical compounds. While ethanol is widely used as a solvent, antiseptic, a mixture of cough medicine, liquor and other beverages that contain alcohol (Ramadani et al., 2018).

There are 2 types of alcohol that are toxic, namely Ethyl Alcohol (Ethanol) and Methyl Alcohol (Methanol). Ethyl alcohol (ethanol) is found in alcoholic drinks and drugs, one of which is cough medicine which is processed and used as a solvent. In general, cough medicines contain one or more of the following components, namely expectorants (efficacious to make it easier to expel phlegm through the cough reflex) and antishtamines (substances that prevent or reduce the action of allergies). There is also a pharmaceutical factory that adds Antitussive (cough suppressant),

Mucolytic (thick sputum thinner) and Surfactant (a substance that prevents the sticking of phlegm on the walls of the respiratory tract and is expected to facilitate expulsion of phlegm through the cough reflex) (Ramadani et al., 2018). From the analysis of the intoxicating drink samples, there is usually alcohol with levels ranging from 8-20% and the rest consists of water and carbohydrates. This means that alcohol is not absolutely *khamar*. Alcohol is just one of the most important building blocks of alcohol in intoxicating drinks. However, because alcohol is the main substance that causes the effects of drunkenness in *khamar* which is the *illat* of prohibition of *khamar*, then the law of alcohol can be equated with *khamar* (Ramadani et al., 2018).

However, in principle, not all alcohol is alcoholic, but every alcohol is alcoholic. It is necessary to distinguish between alcohol itself and alcoholic beverages. Alcohol is scientifically anything that has a hydroxyl group (-OH) attached to a carbon (C) chain, therefore alcohols with various structures have many variants with different useful functions, ranging from methanol (methyl alcohol), ethanol (ethyl alcohol), propanol (propyl alcohol), butanol, pentanol, and so on. Meanwhile, alcoholic drinks are intoxicating drinks with different variations depending on the ethanol content in them, such as beer with an alcohol content of 4-6%, wine with a content of 9-16%, Spirit (liquor, brandy, whiskey) with an alcohol content of more than 20%. All these drinks are intoxicating so that they are considered as *khamar* (Ramadani et al., 2018). Alcohol in absolute conditions (not mixed), if consumed can cause illness and even death. However, alcoholic drinks when consumed provide an intoxicating pleasurable effect (Ramadani et al., 2018).

As is known in the previous explanation that the function of alcohol in cough medicine is as a solvent (*solvet*). Therefore, as the explanation discussed above, the alcohol which acts as a solvent (*solvet*) is well distinguished from the alcohol in the alcohol, because these two alcohols are different (Ramadani et al., 2018). The reason (*'illat*) for the prohibition of intoxication is due to intoxication. Alcohol is forbidden because of the reason (*'illat*) of the prohibition in it, which is because it is intoxicating. If the cause (*'illat*) is lost, then the prohibition is also lost. Because it is in accordance with the rules that state the law). *'Illat* in the prohibition of alcohol is intoxicating and this *'illat* comes from the Qur'an, Al-Sunnah, and *ijma'* (agreement of the scholars) (Ramadani et al., 2018). This is the reason for the prohibition of alcohol, which is because it is intoxicating. Therefore, it is not appropriate to say that alcohol is forbidden because of the alcohol contained in it. Although it is recognized that the criterion in assessing the hardness or not of alcohol is because of the alcohol in it (Ramadani et al., 2018).

Sheikh Muhammad ibn sholih al-Ut'saimin explained, as for some drugs that use a mixture of alcohol, then it is not forbidden as long as the mixture is small and does not seem to give effect (Ramadani et al., 2018). Even drugs that contain alcohol are allowed due to the existence of istihlak. What is meant by istihlak is the mixture of haram or najis objects with other sacred and halal objects that are more numerous so as to eliminate the nature of najis and the prohibition of objects that were previously najis, both taste, color and smell (Ramadani et al., 2018). Therefore, alcohol contained in cough medicine whose use as a legal solvent is permissible (permissible), because the hadiths of the Prophet about the prohibited intoxicants above are in the context of drinks that already contain intoxicating elements, then if drunk in large or small amounts the law remains haram. While alcohol is mixed in cough medicine as a solvent is not so (Ramadani et al., 2018).

### **Conclusion**

Based on the results of research and discussion, the conclusion is that alcohol is the main content of alcohol so that the drink can cause consumers to become intoxicated. But alcohol when separated from alcohol is a different thing because of the arrangement of particles and the way it is made. In terms of the hadith of the Prophet Muhammad SAW, alcohol contained in cough medicine is permissible (permissible), because basically the hadith of the Prophet about prohibited intoxicants is in the context of drinks that have intoxicating elements, then if drunk in small or large amounts the law is haram. While in the case of its use as a solvent in cough medicine is not so if the level remains within the limits that have been determined that is not more than 1%. This study is expected to the whole community to be more careful in consuming cough medicine, which is indicated to contain alcohol compounds whose levels reach more than 1 percent of the alcohol compound content. Admittedly, this research has limitations, namely takhrij and syarah hadith in a simple way, so it is necessary to follow up the research more adequately through the field of chemistry. This study recommends to LPPOM MUI to tighten the supervision of halal labeling on drug products so that the public is not deceived in consuming products that can endanger public health.

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