

# ספירימ

## CAST IRON COOKWARE

### Seasoning

Pots, frying pans, skillets, and other cookware made of cast iron must be "seasoned" to prevent them from rusting and to give them non-stick properties. To season this type of cookware, it is first coated with oil, fat, or butter and then put it into a warm/hot oven for a few hours. With more and more use of the cookware, oil is continually absorbed and baked-in until the cookware is truly seasoned. The full process takes many uses and gives the cookware a rich black patina; once completed the cookware is seasoned forever. Traditionally, people purchased such cookware and seasoned it by themselves; nowadays the cookware can be purchased in that same form (i.e. un-seasoned) or pre-seasoned. The un-seasoned items have a metallic-gray color and are sold with a temporary, protective coating which the consumer washes off before seasoning the pot by themselves. The pre-seasoned items have a dark-black color and have already been seasoned in the factory.

The pre-seasoned cookware goes through the aforementioned seasoning process before it leaves the factory, which raises an obvious kashrus issue, as animal fat is clearly not kosher, and uncertified vegetable oil and butter may very well be non-kosher. [It appears that the coating used on the un-seasoned pots does not present a *kashrus* concern.] As such, unless one can ascertain that a specific company uses only kosher seasoning, it must be assumed that new pre-seasoned cast iron cookware is not kosher, since it may have absorbed non-kosher seasoning. This leads to two questions regarding how to *kasher* the cookware – how to prepare for *kashering* and how to choose the method of *kashering*.

### Preparing for kashering

In general, *kashering* is only effectual to remove non-kosher food which is both absorbed into a utensil and *aino ben yomo* but is ineffective if there is any tangible residue on the surface of the utensil. Of course, all cast iron cookware purchased in a store is *aino ben yomo*, as the seasoning is applied in the factory days or weeks before the consumer buys the cookware. The question we must address is whether the seasoning is somehow considered to be

"tangible". The cookware gives all appearances of being clean, and there is not even a trace of grease or oil on the surface; thus, the simple understanding is that the cookware is clean and ready for *kashering*. On the other hand, it is well known that if one scrubs cast iron cookware with soap or detergent, the oil/seasoning will be removed to the point that a fresh round of seasoning is required. As such, should the consumer possibly be required to do that type of cleaning before *kashering*?

We posed this question to the *Av Beis Din*, Rav Schwartz *Shlita*, who ruled that new cast iron cookware does not have to be cleaned before *kashering*. He reasoned that although the seasoning can be removed with soap, it is considered "absorbed" since the surface of the cookware exhibits no trace of the oil/seasoning. Thus, the seasoning is *baluah*/absorbed into the cookware such that it can and must be removed with *kashering*.

### Method of kashering

As noted above, the cookware is seasoned by spraying or smearing a thin layer of oil or fat on the utensil's surface, and then heating the utensil in an oven for an extended period of time. Thus, the non-kosher oil/fat comes in direct contact

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with the utensil, which gives us the following reason to consider that the cookware must be *kashered* via *libun gamur*. *Shach* YD 121:8 and *R' Akiva Eiger* ad loc. understand that *Responsa Rema M'Pano* 96 holds that *hag'alah* is only suitable if there was some water, oil, or other medium that acted as a barrier between the *issur* and the utensil. If however, there was direct contact on the fire between the forbidden food and the utensil, *libun gamur* is required. Since in our case the oil is the forbidden food, it cannot serve as the barrier between the *issur* and the utensil, and therefore *libun gamur* is required.

While there are *Poskim* who accept this approach (see *Aruch HaShulchan* YD 121:11), the consensus of the *Poskim* is to rule that anytime a utensil is used with a meaningful amount of liquid, *hag'alah* suffices even if the liquid is itself the *issur*. Some of the *Poskim*



who follow this latter opinion are *Rema*, *Magen Avraham*, and *Chasam Sofer*.<sup>1</sup> It is also noteworthy that although *Shach* and *R' Akiva Eiger* understand *Rema M'Pano* as described above, some of the *Poskim* cited in this paragraph interpret *Rema M'Pano* in a manner that puts him (basically) in line with the latter opinion.

Thus, the proper way to *kasher* new cast iron cookware is through *hag'alah*, which involves bringing a pot of water to a boil and then submerging the cookware into the water. [If one mistakenly uses cast iron cookware with a non-kosher item, in many cases *libun gamur* will be required, as the above rationale will not apply]. *Hag'alah* for cast iron cookware is complicated by two matters – the size of the cookware and its weight/thickness – as follows. Some cast iron cookware is so large that it cannot easily be put into a pot of boiling water. In such cases it is worth remembering that *hag'alah keilim* is different than *tevillas keilim* in that one may *kasher* the utensil piecemeal and there is no need to submerge the entire pot in the *hag'alah* water at once. The other issue is that due to the weight and thickness of cast iron cookware, the metal will not get hot if one merely dips into the *hag'alah* water for a few seconds. Rather, the items should be put into the boiling water and left there for long enough that the water itself comes back to a boil, which indicates that the cast iron itself has become heated to *hag'alah* temperatures.



## METHANOL RECOVERED FROM A NON-KOSHER BIODIESEL REACTION

A company reacts tallow with methanol to create a methyl ester (i.e. biodiesel), and the byproduct of that reaction is glycerin. In order to guarantee that all of the tallow is reacted, the company puts in more methanol than is required. Once the reaction is finished, the leftover methanol is purified in a distillation column, and the methanol is reused. The recycled methanol might be used in further biodiesel reactions or for other reactions which create (ingredients for) surfactants and other non-food items. The non-food items made from this methanol are sold on the open market, but it is unlikely that the recycled methanol itself would be sold to other companies.

Obviously, the biodiesel made with tallow and the glycerin byproduct cannot be certified as kosher. However we may ask the following questions:

1. Is the recycled methanol kosher?
2. If not, might it be "sufficiently kosher" that the non-food items made with it could be certified?
3. How does this information affect the Group 1 status of methanol and methyl-based products?

At first glance, it would appear that since the tallow and methanol are mixed together and then heated to above *yad soledes bo*, the methanol should hopelessly be forbidden forever. However Rabbi Avrohom Juravel suggested that possibly one could be lenient due to the fact that methanol is poisonous,<sup>2</sup> and Rabbi Gavriel Price expounded on this by directing us to *Shulchan Aruch* Y.D. 87:10, as follows.

Under certain circumstances, milk found in the stomach of a slaughtered calf<sup>3</sup> is considered "waste/פֶּרֶשׁ" to the point that it does not have a dairy status.<sup>4</sup> What if that "milk" was *kovush* in the slaughtered calf's stomach for more than 24 hours; should we then assume that the "milk" has now absorbed a meat taste from the stomach such that the "milk" cannot be used as a coagulant for cheese? *Beis Yosef*<sup>5</sup> cites a *machlokes Rishonim* regarding this point, and *Shulchan Aruch/Rema* 87:10 rule that *l'chatchilah* one should be *machmir* and not use such "milk" for cheese-making, but *b'dieved* the cheese is permitted.

There are two ways to understand the lenient opinion.

1. *Beis Yosef*, as explained by *Shach* 87:11, appears to understand that when the meat taste is absorbed into a non-food, it is weakened or diluted even more than the way meat taste is diluted during the process of *nat bar nat*. Therefore, the "milk" doesn't have a significant meat taste, and it may be used for cheese-making.
2. *Darchei Moshe* 87:6, cited in *Taz* 87:11, argues that the lenient opinion holds that when the (edible) meat taste is absorbed into the (inedible) "milk", the meat assumes the inedible status of the "milk", and may therefore be used in cheese-making.

Would the lenient opinion also be lenient if a non-kosher taste had been absorbed into the inedible

<sup>2</sup> See for example, the entry for Methanol in *Encyclopaedia Britannica* which states that "[Methanol] is a violent poison; many cases of blindness or death have been caused by drinking mixtures containing it.

The assumption is that a poisonous item which has a pleasant taste is considered "inedible/מאכילה" as it is not fit for human consumption (i.e. אינו ראוי לנא).  
<sup>3</sup> I.e. the calf nursed from its mother just before being slaughtered, and some of that milk is found in the calf's stomach after slaughter.

<sup>4</sup> See *Shulchan Aruch* 81:6.

<sup>5</sup> *Beis Yosef* Y.D. 87 pg. 139a.

<sup>1</sup> *Rema* YD 135:6 (who states that a utensil used to cook *stam yayin* may be *kashered* via *hag'alah*), *Magen Avraham* 451:12 (as per *Pri Megadim* ad loc.), and *Responso Chasam Sofer* YD 111.

“milk”? Seemingly, according to *Darhei Moshe* there should be no difference between meat-taste and non-kosher taste. One could however suggest that according to *Beis Yosef/Shach*, the lenient opinion is limited to questions of *basar b'chalav* where the principle of *nat bar nat* sets a precedent that a weakened taste does not create *basar b'chalav*. However, in cases of other non-kosher taste, where the leniency of *nat bar nat* does not apply, taste absorbed into an inedible item might remain forbidden. Nevertheless, this suggestion is clearly not correct, as the very next *Shach* (87:32) applies these halachos to a case where one finds non-kosher “milk” (i.e. כשרה שניקה מן הטריפה) in the calf's stomach. Thus, in practice, both explanations of the lenient opinion appear to agree that the leniency applies both to questions of *basar b'chalav* and other *issurim*.

In summary, if non-kosher taste is absorbed into an inedible non-food item, *l'chatchilah* one may not use that non-food item in kosher food production as the non-kosher taste will be absorbed into the kosher food. However, *b'dieved* food made with that item remains kosher.

The above discussion would appear to be relevant to our case of inedible methanol reacted with non-kosher tallow. *L'chatchilah*, any methanol recovered from that reaction should not be used in kosher food production, but *b'dieved* anything made with that methanol would be kosher. This seems to answer the first question posed above – the methanol should not be used in kosher food production.

As relates to the third question, the methanol-containing products are technically *b'dieved* permitted, but *hashgachos* often take the stand that a product cannot be classified as Group 1 unless there are absolutely no *kashrus* issues involved in its production. In considering whether to apply that strictness to methanol-based products, the *hashgachos* will have to consider (a) how prevalent the above scenario of methanol from non-kosher biodiesel production is, (b) how difficult it would be for companies to obtain kosher-certified methyl products, and (c) whether expending the effort required to demand *hashgachah* on methyl products will dilute the ability to make other more-significant requests of certified companies.

**Hashgachah on inedible items is understood to merely mean that the finished product contains no tangible non-kosher ingredients**

As relates to the second question – allowing this tainted methanol in certified non-food items – it would appear that as a rule, *hashgachah* on inedible items is understood to merely mean that the finished product contains no tangible non-kosher ingredients, but they may contain *b'lios* of non-kosher (and in some cases non-kosher ingredients which are *batel b'shishim* are also allowed). Therefore, in this case, where scientifically there is no trace of the tallow (as the methanol is purified by distillation) and even halachically the methanol is permitted *b'dieved* for use in kosher products, the methanol may be used in certified inedible items such as surfactants.



## WOOD PRODUCTS

Although humans cannot digest wood, a number of wood products are used as raw materials in food products. One example is that the gas escaping from smoldering sawdust is liquefied to create natural smoke flavor. Other wood products used in food are cellulose, carboxymethylcellulose (CMC), cherry bark powder,<sup>6</sup> wood chips and wood pulp, all of which are Group 1. Additional wood

Wood sugar, known as xylose, is used as a feed material for the fermentation of torula yeast and can be hydrogenated into the sugar alcohol known as xylitol. Some consider torula yeast as a Group 1 (in spite of it being produced through fermentation) unless it is sold as a powder (i.e. spray dried), and it is not clear if the other *hashgachos* agree with that decision. Xylitol, as with other sugar alcohols, is assumed to be hydrogenated on equipment which is dedicated for sugar alcohol production, and is therefore considered a Group 1. There was a time when methanol was produced from xylose (hence the name, “wood alcohol”), but it is now generally produced from synthetic sources and remains a Group 1.

Wood pulp is converted into paper, and a waste product of wood pulp is lignin, which is used to create vanillin, a flavoring component which is meant to mimic the taste of vanilla extract; paper and vanillin are Group 1. [Additional byproducts of lignin are the lignosulfonates and pyroligneous acid]. As noted above, smoldered wood creates smoke flavor, and the wood leftover from that process is sold as charcoal, which can be further processed into “activated carbon”. Guaiacol is a sweet chemical

<sup>6</sup> See <http://www.zooscape.com/cgi-bin/maitred/GreenCanyon/questp511459> which, in part, describes cherry bark powder as follows: Wild Cherry, also known as Virginia Prune, Black Cherry, Chokey Cherry, and Rum Cherry, is a large tree that grows mostly in the northern United States and Canada. It produces small white flowers, and purplish to black fruits, which ripen in early Fall. The bark of older Wild Cherry trees is nearly black, and separates naturally. The bark of young trees is reddish-brown and has an almond-like scent. It is this outer bark of the young Wild Cherry tree that is used medicinally.

which is obtained from hard wood tar (or synthetic sources).<sup>7</sup>

Extracts of pine trees are used to create "tall oil" and wood rosin, both of which are inherently innocuous. However, wood rosin is most often used to stabilize fruit-flavored beverages as "glycerol esters of wood rosin";<sup>8</sup> since glycerol esters of wood rosin are an ester of glycerin and wood rosin it is a kosher-sensitive ingredient and requires *hashgachah*. Cedrol, a.k.a. cedarwood camphor, is first isolated from Virginia Cedarwood oil, followed by crystallization.<sup>9</sup>

Rubber is another wood product which does not pose any inherent *kashrus* concerns, but the gum is typically mixed with fats and emulsifiers for the creation of chewing gum, its typical food application.

Future articles will IY"YH cover the following wood products: tree leaves used as spice materials, and turpentine products.



## TWEAKER KNOB FOR OVENS

### Background

The Star-K led the way in creating ovens with "Sabbath Mode" which disables certain features (e.g. automatic shutoff after 12 hours, lights, and sounds) thereby rendering the ovens suitable for *Yom Tov* use, and this effort was/is universally appreciated. As part of that project, the ovens were programmed in a manner that Rav Heinemann held would permit the consumer to adjust the temperature inside the oven on *Yom Tov*. At the time other *Poskim* disagreed with this last innovation, and a few years ago this strict opinion was given more publicity.

As this debate was unfolding, an electrical engineer named Chaim came up with his own method of adjusting an oven's temperature on *Yom Tov* which he believed would be acceptable to all opinions. He approached Rav Belsky and Rabbi Zushe Blech with the design for this device, which he called a "Tweaker", and they agreed that it was suitable for use on *Yom Tov* with certain conditions. A few months ago, Chaim approached the cRc for their approval, and Rav Schwartz decided to investigate the device as a community project in conjunction with Rav Shmuel Fuerst. These two *Poskim* saw the device installed in someone's home, learned the details behind how it operates, and

<sup>7</sup> Fenaroli, pg. 738.

<sup>8</sup> People in the beverage industry with whom we consulted suggested that glycerol esters of wood rosin are used to keep the fruit oils used in some (higher end) beverages in suspension.

<sup>9</sup> Arctander, 598.

issued a [so mewhat limited] endorsement of the device (as described below) for the Chicago community. [A copy of that endorsement can be found in the footnote.]<sup>10</sup>

### The device

The thermometer in a modern oven is actually a specialized piece of metal that has electrical current passing through it and that current is continuously monitored by a computer. Since the nature of electricity is that as metal becomes warmer it conducts electricity less efficiently, the computer is able to calculate the temperature in the oven based on the flow of electricity through the "thermometer".

The main part of the Tweaker is a potentiometer (basically, a dimmer switch) which is installed between the thermometer and the computer. When the Tweaker's dial is turned the electrical flow is adjusted, which "tricks" the computer into thinking that the oven is hotter or colder than it actually is. In other words, the computer measures temperature based on the flow of electricity and by turning the Tweaker one is manually adjusting the flow which affects the computer's calculations. [Turning the Tweaker does not increase or decrease the amount of electricity flow.] The other part of the Tweaker is

<sup>10</sup> The following is the wording of the endorsement letter dated October 26, 2011 / ל"ח תשרי תשע"ב:

In order to allow people to adjust the temperature of their home ovens on *Yom Tov*, Chaim \*\*\*\*\* has developed a device known as the "Tweaker". We have investigated the principles behind this device and seen it in operation, and recommend the reduced-range Tweaker for the members of our community under the following conditions:

#### Device

The professionally installed device should include:

1. A reduced-range Tweaker marked with "high" and "low" settings. The difference between a reduced-range and a full-range Tweaker, and the potential pitfalls for an average consumer using a full-range Tweaker, are beyond the scope of this letter. Those details will be communicated to the trained local technicians who will be available to install the devices for members of our community.
2. An indicator light that shows whether the oven's glow bar is lit.

#### Use

3. The Tweaker cannot be used on Shabbos.
4. Before *Yom Tov*:
  - a. Set the oven into Shabbos-mode.
  - b. Set the oven temperature for 350° F. At this setting, the Tweaker's "high" setting is equivalent to 350° F and the "low" setting will maintain a temperature of approximately 200° F in the oven chamber.
5. On *Yom Tov*:
  - a. When the indicator light is on the Tweaker's knob may be moved from the low setting to the high setting.
  - b. When the indicator light is off the Tweaker's knob may be moved from the high setting to the low setting.

\* Chaim can be reached at Tweaker@IThankHashem.com. See www.TorahTechnologies.org for more information on the Tweaker and the following licensing agreement:

Reb Chaim makes the invention design freely available to all Yidden (to build and use at their own risk) and would also make it available to any appliance manufacturer or kashrus agency that might want to incorporate it, with the only request that it be used in the merit of his father, Avraham ben Betzael z"l, and his maternal grandfather Nussim ben Shimon HaKohen z"l.

an indicator light that turns on when the oven's pilot/glowbar is on.

On *Yom Tov* if the indicator light shows that the oven is "on" one can turn the Tweaker such that the computer thinks the chamber is colder than it actually is, thereby causing the flame to stay on longer. If the indicator light shows that the oven is "off" the person can turn the Tweaker in the opposite direction so that the computer thinks the oven is hotter and therefore stays off longer.<sup>11</sup> In either case, the adjustments maintain the status quo and merely have the effect of prolonging the time before the oven turns on or off.

The original Tweaker device gives the consumer the ability to fully adjust the electrical flow, but this raised two issues. Firstly, a person might adjust the Tweaker to the point that the oven's flame would never go back on,<sup>12</sup> which would mean that the person would not be able to cook for the rest of *Yom Tov*. Secondly, a person might adjust the Tweaker in a hot oven to the point that the computer would think that the chamber is so hot that it must be self-cleaning,<sup>13</sup> and (in some ovens) this triggers the door to lock and/or lights and sounds to turn on.

Accordingly, the Chicago Rabbonim only endorsed the "Reduced Range Tweaker" which operates in a smaller band of temperature such that it is impossible to run afoul of the aforementioned issues. The Reduced Range Tweaker has the added advantage of being less "techie" and has only two settings ("high" and "low") which is more suited for the average layperson than the original Full Range Tweaker.

### Installation

Installation of the device takes 30-45 minutes and is accomplished by opening connection points that are intended to be opened (to service the oven) and inserting additional wiring (and hardware) in between the connection points.<sup>14</sup> Accordingly, it would seem that one would not void the warranty when adding a Tweaker to an oven, but that has not yet been discussed with the manufacturers. [The

<sup>11</sup> When one uses the potentiometer to increase the resistance, the electrical flow slows and the computer calculates that the oven is hotter than it actually is. Accordingly, increasing the resistance causes the oven to stay off for longer. This is perfectly logical but the wording (raising the resistance makes the oven stay off) is sometimes difficult for non-electricians to understand.

<sup>12</sup> I.e. the resistance would be so great and the electrical flow slowed so much that even at room temperature the computer would think that the oven is hotter than the set-point.

<sup>13</sup> E.g. the oven is actually 350° F and the flame is off (since it is at its set point) and the resistance is increased to the point that the computer calculates the temperature as being 850° F which it assumes is part of the self-clean cycle. The exact temperature required to trigger this reaction fluctuates from oven to oven, and in some ovens there is absolutely no "reaction" to the perceived high temperatures.

<sup>14</sup> The parts required for a Tweaker appear to be readily available from stores like Radio Shack, but some technical knowledge is required to assure that the connectors and potentiometer are appropriate for a given oven.

Star-K was approached and asked if the oven manufacturers might be encouraged to approve the use of a Tweaker, and the Star-K responded that as a matter of policy the companies do not approve of add-on devices.]

At the suggestion of Rav Fuerst, we will be training one or more *frum* technicians from the community as to how to build and install the device to the specifications approved by the *Rabbonim*. Chaim takes great pride in these developments and is not looking to earn profits from it; rather he would like everyone to remember that this is done *l'zecher nishmas* Avraham ben Betzelel & Nussin ben Shimon HaKohen.

סג

## KASHRUS FORUM

איבער להו  
Tofu

*The Kashrus Forum will IY"H pose a question each issue of Sappir and print responses from readers in the next issue*

*Note: Tofu is generally assumed to not be עולה על שולחן מלכים. For purposes of this question we will assume that it is עולה על שולחן מלכים.*

Tofu is created in 6 steps:

- Soak soybeans overnight
- Cook the beans in water
- Separate the desirable liquid from the undesirable fiber
- Curdle the liquid
- Wrap the curd in cheesecloth and put it into a mold
- Squeeze out any remaining liquid and solidify the curd into the desired shape

The above shows that the tofu is created from the liquid created during cooking rather than from the solid fibrous materials. Accordingly, one can wonder whether tofu qualifies for the leniency of *Tosfos, Avodah Zara* 31b s.v. *u'travayu*, cited in *Taz* YD 114:1, that beer does not require *bishul Yisroel* because the grain is *tafel* to the water. Should tofu – created from the liquid extracted from cooked soybeans – also not require *bishul Yisroel* for this reason?