



Advanced Guide to THC Potency Calculation in Edibles

When it comes to making your own edibles, keeping track of your infusion potency is very important. Not only will it help you find your personal cannabis “chunk” or dose, but knowing how much you are taking can also prevent an unpleasant experience with over-ingestion of THC. At Aloha Green, all the labels on our cured cannabis flower packaging include the potential percentage of THC after decarboxylation. The calculation to get this percentage of THC is done by a third-party lab during cannabinoid testing and reflects what approximate percentage of THC the cannabis flower will contain.

If you decide to make your own THC edibles out of butter or oil, this guide is to help you find the approximate percentage of THC in each teaspoonful (or fraction thereof).

Step one: Convert the percentage of THC into milligrams per gram of flower. This is easily done by multiplying the percentage of THC by 10. For this example, let’s say you purchase 1 gram of Super Lemon Haze at 17.7% THC.

$17.7 \times 10 = \underline{177\text{mg of THC per gram of flower.}}$

Step two: Account for the THC lost during decarboxylation.

Because of the heat during the decarboxylation, a small loss in weight, cannabinoids, terpenes, flavonoids, and other constituents of the cannabis flower occur. About 20% of the THC is considered “lost” to the process. To account for this 20% loss of THC in our calculation, the 177mg of THC per g of the flower is multiplied by 80% or 0.8. For example:

$\underline{177 \text{ mg} \times 0.8 = 141.6 \text{ mg THC per gram after decarboxlation}}$

Now we can closely estimate to have approximately 141.6 mg of THC in one gram of the decarboxylated Super Lemon Haze Flower.

Step 3: Decide how strong you want the infusion to be, or how much flower you want to use for the infusion process. In this example, you can estimate how many total mg of THC is in the batch of Super Lemon Haze Flower by multiplying 141.6 mg for each gram of flower used for the infusion process.

1 gram = 141.6 mg,

3.5 grams = 495.6 mg (3.5 x 141.6)

7 grams = 991.2 mg (7 x 141.6)

Step 4A: Decide how much oil you want to use for your infusion.

If you infuse 14 fluid ounces of coconut oil with 7 grams of the decarboxylated Super Lemon Haze flower, account for some fluid loss from heat, you will end up with approximately 12 ounces of infused oil with approximately 991.2 mg of THC.

Here is how to find approximately how much THC is in one teaspoon of that oil:

There are 72 teaspoons in 12 fluid ounces.

$991.2 \text{ mg THC} \div 72 \text{ (teaspoons)} = \underline{13.76 \text{ mg THC per teaspoon of oil.}}$

A micro-dose of a $\frac{1}{4}$ teaspoon, $13.76 \div 4 = 3.44 \text{ mg THC.}$

Step 4B: If you don't want to infuse oil, you can also choose to infuse butter.

If you infuse 16 ounces of butter with 7 grams of the decarboxylated Super Lemon Haze flower, with some fluid loss from heat, you will end up with approximately 14 ounces of infused butter.

Here is how to find approximately how much THC is in one teaspoon of that butter:

There are 84 teaspoons in 14 fluid ounces.

$991.2 \text{ mg THC} \div 84 = 11.8 \text{ mg THC per teaspoon.}$

A micro-dose of a $\frac{1}{4}$ teaspoon, $11.8 \div 4 = 2.95 \text{ mg THC.}$

The simplest way I have found to calculate the THC amounts in my homemade infusions of butter and oil, is to follow the example outlined in *Marijuana Edibles*, Laurie and MaryJane, pages 20-21. June 2016.