



let me know manufacturing process of gold chef/wasser in chemical.

Goldwasser (also known as Danziger Goldwasser or "gold chef" drinks) is a spirit or liqueur notable for containing thin flakes of genuine gold suspended in a herbal alcoholic solution. The manufacturing process combines standard liquor production techniques with chemical handling for the gold flakes, ensuring food safety and visual appeal.^{[1] [2] [3]}

Goldwasser Drink Manufacturing

- The base spirit is made from vodka and herbal extract, including spices such as cardamom, cinnamon, cloves, anise, nutmeg, rosemary, coriander, orange and lemon peels, and sometimes peppermint and lavender.^{[2] [4] [1]}
- The herbs and spices are crushed and macerated in ethanol (vodka and neutral spirit) to extract flavor over several days.^{[4] [2]}
- The mixture is filtered, sweetened with sugar, and sometimes enriched with cognac to balance flavor and texture.^[2]
- Thin edible gold flakes (usually 23-24 karat, labeled as E175 food additive) are added at the final step, suspended throughout the liqueur, creating the signature "goldwasser" visual effect.^{[3] [1] [2]}

Chemical Process for Edible Gold Flakes

- Pure gold is used since it is chemically inert in alcohol and non-toxic for human consumption, passing through the digestive tract unchanged.^{[5] [1]}
- Edible gold flakes are produced via mechanical rolling or chemical precipitation from gold salts (such as chloroauric acid reduction with sodium metabisulfite), then washed thoroughly to remove any reaction byproducts.^{[6] [7]}
- The gold flakes are mixed into the finished spirit, suspended by the syrupy texture and alcoholic solution. Gold remains stable due to its non-reactivity with aqueous alcohol.^{[1] [5]}

Summary Table

Step	Chemical/Ingredient	Key Method/Reaction
Spirit creation	Vodka, ethanol, herbs	Maceration and mixing ^{[2] [4]}
Flavoring	Herbal, citrus peels	Extraction and filtration ^{[2] [4]}
Sweetening	Sugar, cognac	Solution & blending ^[2]

Step	Chemical/Ingredient	Key Method/Reaction
Gold flake addition	Edible gold (E175)	Mechanical/chemical processing ^[6] ^[1] ^[7]
Suspension	Syrupy spirit/alcohol	Gold is inert, suspended ^[1] ^[5]

Goldwasser is manufactured by combining flavored spirits, sweeteners, and meticulously produced edible gold flakes, ensuring that all ingredients conform to food safety standards and yield a visually stunning and safe product.^[3] ^[1] ^[2]



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2. <https://pomorskie.travel/en/articles/goldwasser/>
3. <https://www.vodka-lab.com/en/home/197-piasecki-vodka.html>
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