**What Ingredients are in the COVID-19 Vaccine?**

**ct.gov/covidvaccine**


# Pfizer-BioNTech Vaccine Moderna Vaccine

### 95% effective • 94% effective

* Number of shots: **2 shots, 21 days apart** • Number of shots: **2 shots, 28 days apart**

Approved for use in people aged **16 years and older** • Approved for use in people aged **18 years and older**

#### **Ingredients:** messenger ribonucleic acid (mRNA), Iipids (((4-hydroxy butyl)azanediyl)bis(hexane-6,1-diyl) bis(2-hexyldecanoate),2 [(polyethylene glycol)-2000)­ N,N-ditetradecylacetam ide, 1,2-distearoyl-sn-glycero-3- phosphocholine, and cholesterol). potassium chloride,

monobasic potassium phosphate, sodium chloride,dibasic sodium phosphate dihydrate, and sucrose

**Explanation** of ingredients:

Lipids: Nanolipids, or tiny fat molecules,protect the mRNA and provide a "greasy" exterior that helps the mRNA slide inside cells. Nanolipid components in the Pfizer-BioNTech vaccine include: ((4-hydroxybutyl)azanediyl)bis(hexane-6,1- diyl)bis(2-hexyldecanoate), 2 [(polyethylene glycol)-2000]­ N,N-ditetradecylacetamide, 1,2-distearoyl-sn-glycero-3- phosphochollne, and cholesterol

Salts:Helping to balance the acidity in your body, the following salts are included in the Pfizer-BioNTech vaccine: potassium chloride, monobasic potassium phosphate, sodium chloride, and dibasic sodium phosphate dihydrate

Sugar:Basic table sugar, also known as sucrose, can also be found in the Pfizer-BioNTech vaccine. This ingredient helps the molecules maintain their shape during freezing.

### Does NOT contain:Eggs, Preservatives, Latex

**Learn more, read the FDA full Pflzer-BloNTech Fact Sheet:**

#### [www.fda.gov/media/144414/download](http://www.fda.gov/media/144414/download)



'Qi.i:i:i£: ycerol [DMGJ. cholestero l,and

l,2-distearoyl-sn-glycero-3-phosphocholine [DSPC]), tromethamine, tromethamine hydrochloride,

acetic acid,sodium acetate, and sucrose

**Explanation** of ingredients:

mRNA: Like the Pfizer BioNTech vaccine, Moderna's also uses mRNA technology to build antibodies against COVID-19.

Lipids: Nanolipids help deliver the mRNA to the vaccine recipient's cells.Nanolipid components of the Moderna vaccine include:(SM-102, 1,2-dimyristoyl-rac-glycero 3-

methoxypolyethylene glycol-2000 [PEG2000-DMGJ,cholesterol. and 1,2-distearoyl-snglycero-3-phosphocholine [DSPC))

The remaining ingredients, including acids (acetic acid), acid stabilizers (tromethamine and tromethamine hydrochloride). salt (sodium acetate). and sugar (sucrose) all work together to maintain the stability of the vaccine after it's produced.

### Does NOT contain:Eggs, Preservatives, Latex

**Learn more, read the FDA full Modema Fact Sheet:**

#### [www.fda.gov/media/144638/download](http://www.fda.gov/media/144638/download)

**Getting vaccinated is one of many steps you can take to protect yourself and others from COVID-19.**

For some people, COVID-19 can cause severe illness or death. Getting vaccinated not only protects you from COVID-19, it

also protects those around you by preventing its spread.Stopping a pandemic requires using all the prevention tools available. Vaccines work with your immune system so your body will be ready to fight the virus. Other steps, like masks and social distancing,help reduce your chance of being exposed to the virus and spreading it to others. **Together, COVID-19 vaccination and following CDC's recommendations to protect yourself and others will offer the best protection from COVID-19.**

SOURCES

* [www.cdc.gov/coronavi rus/2019-ncov/vacci](http://www.cdc.gov/coronavirus/2019-ncov/vacci)nes/different-vaccines/Pfizc r-BioNTech.html
* [www.](http://www/)cdc.gov/coronavi rus/2019-ncov/vaccines/different-vacc ines/Moderna.html
* [www.](http://www/)cdc.gov/coronavirus/2019-ncov/vacci nes/different-vaccines/how· they-work.html
* [www.hackensackmendianhealth.org/HealthU/2021/0l/11/a-simple-brcakdown-of-the-i](http://www.hackensackmendianhealth.org/HealthU/2021/0l/11/a-simple-brcakdown-of-the-i)ngredients- 1n-the-covid·vaccines

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FACTS

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**Safety Data Sheet**

**acc. to OSHA HCS**

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Printing date 04/11/2021 Revision date 04/11/2021

**1 Identification**

-oxo-6-(undecyloxy)hexyl]amino]-octanoic acid, 1-octylnonyl ester

* **Article number:** 33474

**· Application of the substance *I* the mixture** For research use only, not for human or veterinary use.

·**Details of the supplier of the safety data sheet**

·**Manufacturer/Suppl ier:** Cayman Chemical Co. 1180 E. Ellsworth Rd.

Ann Arbor, **Ml** 48108 USA

·**Information department:** Product safety department

·**Emergency telephone number:**

During normal opening times:+1 (734) 971-3335

US/CANADA: 800-424-9300

Outside US/CANADA: 703-741-5970

**2 Hazard(s) identification**

·**Classification of the substance or mixture**

GHS02 Flame

Flam. Liq. 2

H225 Highly flammable liquid and vapor.

GHS06 Skull and crossbones

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Acute Tax. 2

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H310 Fatal in contact with skin.

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GHSOB Health hazard

Care. 2

Repr. 2

STOT RE 1

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H351 Suspected of causing cancer.

H361 Suspected of damaging fertility or the unborn child.

H372 Causes damage to the central nervous system, the kidneys, the liver and the

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.respiratory system through prolonged or repeated exposure..

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GHS09 Environment

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

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<!:>GHS07

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