

Vaccine Excipients by Excipient

updated March 2023

Excipient	Purpose	Vaccine Name	Vaccine Type	Amount per 0.5 mL Dose
(4-hydroxybutyl)azanediyil bis(hexane-6,1-diyl)bis(2-hexyldecanoate)	Lipid	Comirnaty (Pfizer)	COVID-19	0.43 mg/0.3 mL dose
1,2-distearoyl-sn-glycero-3-phosphocholine [DSPC])	Lipid	Comirnaty (Pfizer)	COVID-19	0.09 mg/0.3 mL dose
1,2-distearoyl-sn-glycero-3-phosphocholine [DSPC])	Lipid	Spikevax (Moderna)	COVID-19	Amount not specified in package insert
2-hydroxypropyl-β-cyclodextrin (HBCD)	Stabilizer, solvent	COVID-19 vaccine by Janssen*	COVID-19	25.5 mg
2-Phenoxyethanol	Stabilizer	Adacel	Tdap	3.3 mg (0.6% v/v) (not as a preservative)
2-Phenoxyethanol	Stabilizer	Daptacel	DTaP	3.3 mg (0.6% v/v) (not as a preservative)
2-Phenoxyethanol	Preservative	IPOL	Polio	0.5%
2-Phenoxyethanol	Stabilizer	Pentacel	DTaP+IPV+Hib	3.3 mg (0.6 v/v) (not as a preservative)
2-Phenoxyethanol	Stabilizer	Quadracel	DTaP+IPV	3.3 mg (0.6 v/v) (not as a preservative)
Acetic Acid	Adjust pH	Spikevax (Moderna)	COVID-19	0.043 mg
Albumin, Bovine	Stabilizer	Vaqta	HepA	<10 ⁻⁴ mcg
Albumin, Bovine	Stabilizer	Zostavax	Varicella Zoster	Trace amounts
Albumin, Bovine Calf Serum Protein	Stabilizer	IPOL	IPV	<50 ng
Albumin, Bovine Serum	Stabilizer	Ixiaro	Japanese Encephalitis	≤100 ng/mL
Albumin, Bovine Serum	Stabilizer	Kinrix	DTaP+IPV	VERO cell culture growth
Albumin, Bovine Serum	Stabilizer	MMR-II	MMR	<1 ppm
Albumin, Bovine Serum	Stabilizer	Pediarix	DTaP+HepB+IPV	VERO cell culture growth
Albumin, Bovine Serum	Stabilizer	Pentacel	DTaP+IPV+Hib	≤50 ng
Albumin, Bovine Serum	Stabilizer	Prehevbrio	HepB	<2.5 ng/mL
Albumin, Bovine serum	Stabilizer	Priorix	MMR	≤50 mcg
Albumin, Bovine Serum	Stabilizer	Quadracel	DTaP+IPV	≤50 ng
Albumin, Bovine Serum	Stabilizer	RabAvert	Rabies	"Small quantities", US origin
Albumin, Bovine Serum	Stabilizer	RotaTeq	Rotavirus	Trace amounts
Albumin, Bovine Serum	Stabilizer	Varivax	Varicella	Trace amounts
Albumin, Bovine Serum	Stabilizer	Vaxelis	DTaP+IPV+HepB	≤50 ng
Albumin, Egg (Ovalbumin)	Residual Medium	Afluria Quad	Influenza	≤1 mcg
Albumin, Egg (Ovalbumin)	Residual Medium	Fluad Quad	Influenza	≤1.5 mcg
Albumin, Egg (Ovalbumin)	Residual Medium	Fluarix Quad	Influenza	≤0.05 mcg
Albumin, Egg (Ovalbumin)	Residual Medium	Flulaval Quad	Influenza	≤0.3 mcg
Albumin, Egg (Ovalbumin)	Residual Medium	FluMist Quad	Influenza	≤0.024 mcg/0.2mL dose
Albumin, Egg (Ovalbumin)	Residual Medium	Fluvirin	Influenza	≤1 mcg
Albumin, Egg (Ovalbumin)	Residual Medium	Priorix	MMR	≤60 mcg
Albumin, Egg (Ovalbumin)	Residual Medium	RabAvert	Rabies	≤3 ng/1 mL dose
Albumin, Human	Stabilizer	Imovax	Rabies	<100 mg/mL
Albumin, Human	Diluent/Stabilizer	MMR-II	MMR	≤0.3 mg
Albumin, Human	Diluent/Stabilizer	ProQuad	MMRV	≤0.31 mg
Albumin, Human	Diluent/Stabilizer	RabAvert	Rabies	≤0.3 mg/1 mL dose
Aluminum	Adjuvant	Engerix-B	HepB	0.5 mg/mL aluminum as aluminum hydroxide
Aluminum	Adjuvant	Gardasil	HPV	225 mcg as amorphous aluminum hydroxyphosphate sulfate
Aluminum	Adjuvant	Gardasil 9	HPV	500 mcg as amorphous aluminum hydroxyphosphate sulfate
Aluminum	Adjuvant	Havrix	HepA	0.5 mg/mL (as aluminum hydroxide)
Aluminum	Adjuvant	Pediarix	DTaP+HepB+IPV	≤0.85 mg
Aluminum	Adjuvant	PedvaxHIB	Hib+HepB	225 mcg
Aluminum	Adjuvant	Prevnar 13	Pneumococcal 13-valent	125 mcg
Aluminum	Adjuvant	Prevnar 20	Pneumococcal 20-valent	125 mcg as aluminum phosphate
Aluminum	Adjuvant	Recombivax HB	HepB	0.5 mg/mL
Aluminum	Adjuvant	TDVax	Tetanus+Diphtheria	≤0.53mg
Aluminum	Adjuvant	Tenivac	Tetanus+Diphtheria	0.33 mg
Aluminum	Adjuvant	Trumenba	Meningococcal B	0.25 mg
Aluminum	Adjuvant	Vaqta	HepA	0.45 mg/mL as amorphous aluminum hydroxyphosphate sulfate
Aluminum	Adjuvant	Vaxelis	DTaP+IPV+HepB	319 mcg aluminum from aluminum salts
Aluminum	Adjuvant	Vaxneuvance	Pneumococcal 15	125 mcg aluminum as aluminum phosphate adjuvant
Aluminum Hydroxide	Adjuvant	Bexsero	Meningococcal B	1.5 mg (0.519 mg aluminum)

* This product is not FDA-approved but was authorized for use under the Emergency Use Authorization on February 27, 2021.

Excipient	Purpose	Vaccine Name	Vaccine Type	Amount per 0.5 mL Dose
Aluminum Hydroxide	Adjuvant	BioThrax	Anthrax	1.2 mg/mL
Aluminum Hydroxide	Adjuvant	Boostrix	Tdap	≤0.39 mg aluminum
Aluminum Hydroxide	Adjuvant	Infanrix	DTaP	≤0.625 mg aluminum
Aluminum Hydroxide	Adjuvant	Ixiaro	Japanese Encephalitis	250 mcg
Aluminum Hydroxide	Adjuvant	Kinrix	DTaP+IPV	≤0.6 mg aluminum
Aluminum Hydroxide	Adjuvant	Prehevbrio	HepB	0.5 mg/mL aluminum
Aluminum Phosphate	Adjuvant	Adacel	Tdap	1.5 mg (0.33 mg aluminum)
Aluminum Phosphate	Adjuvant	Daptacel	DTaP	1.5 mg (0.33 mg aluminum)
Aluminum Phosphate	Adjuvant	DT	DT	1.5 mg
Aluminum Phosphate	Adjuvant	Pentacel	DTaP+IPV+Hib	1.5 mg (0.33 mg aluminum)
Aluminum Phosphate	Adjuvant	Quadracel	DTaP+IPV	1.5 mg (0.33 mg aluminum)
Aluminum Phosphate and Aluminum Hydroxide	Adjuvant	Twinrix	HepA+HepB	0.45 mg/mL aluminum
Amino Acid	Medium Nutrient	BioThrax	Anthrax	Amount not specified in package insert
Amino Acid	Medium Nutrient	COVID-19 vaccine by Janssen*	COVID-19	Amount not specified in package insert
Amino Acid	Medium Nutrient	Flublok Quad	Influenza	Ingredient in growth medium
Amino Acid	Medium Nutrient	Gardasil	HPV	Ingredient in growth medium
Amino Acid	Medium Nutrient	Gardasil 9	HPV	Amount not specified in package insert
Amino Acid	Medium Nutrient	Havrix	HepA	Amino acid supplement - 0.3% w/v
Amino Acid	Medium Nutrient	Menveo	Meningococcal	Amount not specified in package insert
Amino Acid	Medium Nutrient	PedvaxHIB	Hib+HepB	Amount not specified in package insert
Amino Acid	Medium Nutrient	Prehevbrio	HepB	Amount not specified in package insert
Amino Acid	Medium Nutrient	Priorix	MMR	9 mg
Amino Acid	Medium Nutrient	Priorix	MMR	9 mg
Amino Acid	Medium Nutrient	Recombivax HB	HepB	In fermentation medium
Amino Acid	Medium Nutrient	Recombivax HB	HepB	Amount not specified in package insert
Amino Acid	Medium Nutrient	Rotarix	Rotavirus	Amount not specified in package insert
Amino Acid	Medium Nutrient	Shingrix	Zoster	Ingredient in growth medium
Amino Acid	Medium Nutrient	Twinrix	HepA+HepB	Amount not specified in package insert
Amino Acid	Medium Nutrient	Vaxelis	DTaP+IPV+HepB	Amount not specified in package insert
Amino Acid	Medium Nutrient	Vivotif	Typhoid	0.3-3.0 mg/capsule
Amino Acid	Medium Nutrient	Vivotif	Typhoid	0.3-3.0 mg in Amino acid mixture
Ammonium Sulfate	Protein Purifier	ActHIB	Hib	Ingredient in purification
Ammonium Sulfate	Protein Purifier	Adacel	Tdap	Ingredient in purification
Ammonium Sulfate	Protein Purifier	Daptacel	DTaP	Ingredient in purification
Ammonium Sulfate	Protein Purifier	Menactra	Meningococcal	Ingredient in purification
Ammonium Sulfate	Protein Purifier	MenQuadfi	Meningococcal	Ingredient in purification
Ammonium Sulfate	Protein Purifier	Pentacel	DTaP+IPV+Hib	Ingredient in purification
Ammonium Sulfate	Protein Purifier	Prevnar 13	Pneumococcal 13-valent	Ingredient in purification
Ammonium Sulfate	Protein Purifier	Quadracel	DTaP+IPV	Ingredient in purification
Ammonium Sulfate	Protein Purifier	TDVax	Tetanus+Diphtheria	Ingredient in purification
Ammonium Sulfate	Protein Purifier	Tenivac	Tetanus+Diphtheria	Ingredient in purification
Ammonium Sulfate	Protein Purifier	Vaxelis	DTaP+IPV+HepB	Ingredient in purification
Ammonium Thiocyanate	Manufacturing residue	Vaxelis	DTaP+IPV+HepB	≤0.125 mcg
Amorphous Aluminum Hydroxyphosphate Sulfate (AAHS)	Adjuvant	Vaxelis	DTaP+IPV+HepB	Amount not specified in package insert
Amphotericin B	Antimicrobial	RabAvert	Rabies	≤20 ng/1 mL dose
Arginine		FluMist Quad	Influenza	2.42 mg/0.2mL dose
AS01B	Adjuvant	Shingrix	Zoster	Amount not specified in package insert. AS01B composed of 3-O-desacyl-4'-monophosphoryl lipid A (MPL) from <i>Salmonella minnesota</i> and QS-21, a saponin purified from plant extract <i>Quillaja saponaria</i> Molina
Ascorbic Acid	Antioxidant	Vivotif	Typhoid	0.2-2.4 mg/capsule
Asparagine	Medium nutrient	BCG Vaccine	BCG	Amount not specified in package insert
Benzethonium Chloride	Preservative	BioThrax	Anthrax	25 mcg/mL
Benzonase	Protein Purifier	Jynneos	Smallpox and Monkeypox	≤ 0.0025 mcg
Beta-Propiolactone	Viral Inactivator	Afluria Quad	Influenza	≤1.5 ng
Beta-propiolactone	Viral Inactivator	Fluad Quad	Influenza	<0.050 mcg
Beta-Propiolactone	Viral Inactivator	Flucelvax Quad	Influenza	<0.5 mcg
Beta-Propiolactone	Viral Inactivator	Fluvirin	Influenza	≤0.5 mcg
Beta-Propiolactone	Viral Inactivator	Imovax	Rabies	<50 ppm
Beta-Propiolactone	Viral Inactivator	RabAvert	Rabies	Amount not specified in package insert
Bovine Casein	Medium Nutrient	ActHIB	Hib	Amount not specified in package insert
Bovine Casein	Medium Nutrient	Boostrix	Tdap	Amount not specified in package insert
Bovine Casein	Medium Nutrient	DT	DT	Amount not specified in package insert

Excipient	Purpose	Vaccine Name	Vaccine Type	Amount per 0.5 mL Dose
Bovine Casein	Medium Nutrient	Infanrix	DTaP	Amount not specified in package insert
Bovine Casein	Medium Nutrient	Kinrix	DTaP+IPV	Amount not specified in package insert
Bovine Casein	Medium Nutrient	Menactra	Meningococcal	Amount not specified in package insert
Bovine Casein	Medium Nutrient	Pediarix	DTaP+HepB+IPV	Amount not specified in package insert
Bovine Casein	Medium Nutrient	Typhim Vi	Typhoid	Amount not specified in package insert
Bovine Casein	Medium Nutrient	Vivotif	Typhoid	Amount not specified in package insert
Bovine Extract	Medium Nutrient	Boostrix	Tdap	Amount not specified in package insert
Bovine Extract	Stabilizer	Infanrix	DTaP	Amount not specified in package insert
Bovine Extract	Stabilizer	Kinrix	DTaP+IPV	Amount not specified in package insert
Bovine Extract	Stabilizer	Pediarix	DTaP+HepB+IPV	Amount not specified in package insert
Bovine Extract	Stabilizer	TDVax	Tetanus+Diphtheria	Amount not specified in package insert
Bovine, Casamino Acid	Stabilizer	Adacel	Tdap	Amount not specified in package insert
Bovine, Casamino Acid	Stabilizer	Daptacel	DTaP	Amount not specified in package insert
Bovine, Casamino Acid	Stabilizer	Menactra	Meningococcal	Amount not specified in package insert
Bovine, Casamino Acid	Stabilizer	Menomune	Meningococcal	Amount not specified in package insert
Bovine, Casamino Acid	Stabilizer	Pentacel	DTaP+IPV+Hib	Amount not specified in package insert
Bovine, Casamino Acid	Stabilizer	Prevnar 13	Pneumococcal 13-valent	Amount not specified in package insert
Bovine, Casamino Acid	Stabilizer	Prevnar 20	Pneumococcal 20-valent	Amount not specified in package insert
Bovine, Casamino Acid	Stabilizer	Quadracel	DTaP+IPV	Amount not specified in package insert
Bovine, Casamino Acid	Stabilizer	Tenivac	Tetanus+Diphtheria	Amount not specified in package insert
Calcium Carbonate	Buffer	Rotarix	Rotavirus	Ingredient in diluent - Amount not specified in package insert
Calcium Chloride	Medium Nutrient	Afluria Quad	Influenza	0.5 mcg
Calcium Chloride	Medium Nutrient	Rotarix	Rotavirus	Amount not specified in package insert
Carbohydrates	Medium Nutrient	Gardasil	HPV	Amount not specified in package insert
Carbohydrates	Medium Nutrient	Gardasil 9	HPV	Amount not specified in package insert
Cetyltrimethylammonium Bromide (CTAB)	Protein Purifier	Fluad	Influenza	≤12 mcg
Cetyltrimethylammonium Bromide (CTAB)	Protein Purifier	Fluad Quad	Influenza	≤ 18 mcg
Cetyltrimethylammonium Bromide (CTAB)	Protein Purifier	Flucelvac Quad	Influenza	≤18 mcg
Chick Embryo	Residual Medium	MMR-II	MMR	No intact cells (may have trace residual protein)
Chick Embryo	Residual Medium	Priorix	MMR	Amount not specified in package insert
Chick Embryo	Residual Medium	ProQuad	MMRV	No intact cells (may have trace residual protein)
Chick Embryo	Residual Medium	RabAvert	Rabies	No intact cells (may have trace residual protein)
Chick Embryo	Residual Medium	YF-Vax	Yellow Fever	Amount not specified in package insert
Chick fibroblasts	Protein Purifier	RabAvert	Rabies	Growth medium
Chlortetracycline	Antimicrobial	RabAvert	Rabies	≤200 ng/1 mL dose
Cholesterol	Lipid	Comirnaty (Pfizer)	COVID-19	0.2 mg/0.3 mL dose
Cholesterol	Lipid	Shingrix	Zoster	0.25 mg
Cholesterol	Lipid	Spikevax (Moderna)	COVID-19	Amount not specified in package insert
Ciprofloxacin	Antimicrobial	Jynneos	Smallpox and Monkeypox	≤ 0.005 mcg
Citric Acid	Medium nutrient	BCG Vaccine	BCG	Amount not specified in package insert
Citric Acid Monohydrate	Medium nutrient	COVID-19 vaccine by Janssen*	COVID-19	0.14 mg
Citric Acid Monohydrate	Medium nutrient	Fluad Quad	Influenza	0.04 mg
CpG 1018	Adjuvant	Hepelisav-B	HepB	3000 mcg
Deoxycholate	Emulsifier	Hepelisav-B	HepB	<0.9 ppm
Dextran	Stabilizer	Rotarix	Rotavirus	Amount not specified in package insert
Dextrose	Medium Nutrient	DT	DT	Amount not specified in package insert
Dextrose	Medium Nutrient	Recombivax HB	HepB	Ingredient in fermentation medium
Dextrose	Medium Nutrient	Vaxneuvance	Pneumococcal 15	Amount not specified in package insert
Dextrose	Medium Nutrient	Vivotif	Typhoid	Amount not specified in package insert
D-glucose	Medium Nutrient	Rotarix	Rotavirus	In DMEM (Dulbecco's Modified Eagle Medium)
Dimethyl-beta-cyclodextrin	Medium Nutrient	Adacel	Tdap	Amount not specified in package insert
Dimethyl-beta-cyclodextrin	Medium Nutrient	Daptacel	DTaP	Amount not specified in package insert
Dimethyl-beta-cyclodextrin	Medium Nutrient	Pentacel	DTaP+IPV+Hib	Ingredient in Stainer-Scholte medium
DNA	Residual Medium	COVID-19 vaccine by Janssen*	COVID-19	≤3 ng Host Cell DNA
DNA	Residual Medium	Fluad Quad	Influenza	≤ 25.2 mcg MDCK cell protein ≤ 10 ng MDCK cell DNA
DNA	Residual Medium	Flublok Quad	Influenza	≤10 ng
DNA	Residual Medium	Flucelvac Quad	Influenza	≤10 ng MDCK cell
DNA	Residual Medium	Ixiaro	Japanese Encephalitis	≤200 pg/mL ('host cell DNA')
DNA	Residual Medium	ProQuad	MMRV	Residual component of MRC-5 cells

Excipient	Purpose	Vaccine Name	Vaccine Type	Amount per 0.5 mL Dose
DNA	Residual Medium	RotaTeq	Rotavirus	Residual component of manufacturing process
DNA	Residual Medium	Shingrix	Zoster	≤2.1 picograms
DNA	Residual Medium	Vaqa	HepA	<4 x 10 ⁻⁶ mcg
DNA	Residual Medium	Varivax	Varicella	Residual component of MRC-5 cells
DNA	Residual Medium	Zostavax	Varicella Zoster	Residual
DOPC	Lipid in AS01	Shingrix	Zoster	1 mg
EDTA	Preservative	RabAvert	Rabies	0.3 mg/1 mL dose sodium EDTA
EDTA	Preservative	Varivax	Varicella	Trace amounts
Egg Protein	Residual Medium	Fluad	Influenza	<0.4 mcg
Ethanol	Solvent	COVID-19 vaccine by Janssen*	COVID-19	2.04 mg
Ethylenediaminetetraacetic acid (EDTA)	Preservative	FluMist Quad	Influenza	<0.37 mcg/0.2mL dose
Ferric (III) Nitrate	Medium Nutrient	Rotarix	Rotavirus	In DMEM (Dulbecco's Modified Eagle Medium)
Formaldehyde	Inactivating Agent	ActHIB	Hib	<0.5 mcg
Formaldehyde	Inactivating Agent	Adacel	Tdap	≤5 mcg
Formaldehyde	Preservative	BioThrax	Anthrax	100 mcg/mL
Formaldehyde	Inactivating Agent	Boostrix	Tdap	≤100 mcg (residual)
Formaldehyde	Inactivating Agent	Daptacel	DTaP	≤5 mcg (residual)
Formaldehyde	Inactivating Agent	DT	DT	<100 mcg
Formaldehyde	Inactivating Agent	Fluad	Influenza	≤10 mcg
Formaldehyde	Inactivating Agent	Fluarix Quad	Influenza	≤5 mcg
Formaldehyde	Inactivating Agent	Flulaval Quad	Influenza	≤25 mcg
Formaldehyde	Inactivating Agent	FluZone High-Dose Quad	Influenza	≤140 mcg/0.7 mL dose
Formaldehyde	Inactivating Agent	FluZone Intradermal Quad	Influenza	≤20 mcg/0.1 mL dose
Formaldehyde	Inactivating Agent	FluZone Quad	Influenza	≤100 mcg
Formaldehyde	Inactivating Agent	Havrix	HepA	≤0.1 mg /mL formalin
Formaldehyde	Inactivating Agent	Hiberix	Hib	<0.5 mcg (residual)
Formaldehyde	Inactivating Agent	Infanrix	DTaP	≤100 mcg (residual)
Formaldehyde	Inactivating Agent	IPOL	Polio	≤0.02%
Formaldehyde	Inactivating Agent	Ixiaro	Japanese Encephalitis	≤200 pmm
Formaldehyde	Inactivating Agent	JE-Vax	Japanese Encephalitis	<100 mcg/1 mL dose
Formaldehyde	Inactivating Agent	Kinrix	DTaP+IPV	≤100 mcg (residual)
Formaldehyde	Inactivating Agent	Menactra	Meningococcal	<2.66 mcg
Formaldehyde	Inactivating Agent	MenQuadfi	Meningococcal	<3 mcg/mL
Formaldehyde	Inactivating Agent	Menveo	Meningococcal	≤0.30 mcg
Formaldehyde	Inactivating Agent	Pediarix	DTaP+HepB+IPV	≤100 mcg (residual)
Formaldehyde	Inactivating Agent	Pentacel	DTaP+IPV+Hib	≤2 mcg (residual)
Formaldehyde	Inactivating Agent	Quadracel	DTaP+IPV	≤5 mcg
Formaldehyde	Inactivating Agent	Recombivax HB	HepB	<15 mcg/mL (residual)
Formaldehyde	Inactivating Agent	TDVax	Tetanus+Diphtheria	<100 mcg
Formaldehyde	Inactivating Agent	Tenivac	Tetanus+Diphtheria	≤5.0 mcg
Formaldehyde	Inactivating Agent	Twinrix	HepA+HepB	≤0.1 mg/mL formalin
Formaldehyde	Inactivating Agent	Typhim Vi	Typhoid	≤100 mcg (residual)
Formaldehyde	Inactivating Agent	Vaqa	HepA	<0.8 mcg
Formaldehyde	Inactivating Agent	Vaxelis	DTaP+IPV+HepB	≤14 mcg
Galactose	Medium Nutrient	Vivotif	Typhoid	Amount not specified in package insert
Gelatin	Manufacturing Residue	JE-Vax	Japanese Encephalitis	500 mcg/1 mL dose
Gelatin	Gelatin Capsules	Vivotif	Typhoid	Gelatin Capsule
Gelatin	Manufacturing Residue	YF-Vax	Yellow Fever	Amount not specified in package insert
Gelatin, Bovine	Stabilizer, solvent	RabAvert	Rabies	≤12 mg/1 mL dose polygeline
Gelatin, hydrolyzed	Stabilizer	MMR-II	MMR	14.5 mg
Gelatin, hydrolyzed	Stabilizer	ProQuad	MMRV	11 mg
Gelatin, hydrolyzed	Stabilizer	Varivax	Varicella	12.5 mg
Gelatin, Porcine, Hydrolyzed	Stabilizer	FluMist Quad	Influenza	2.00 mg/0.2 mL dose
Gelatin, Porcine, Hydrolyzed	Stabilizer	Zostavax	Varicella Zoster	15.58 mg/0.65 mL dose
Gentamicin	Antimicrobial	Jynneos	Smallpox and Monkeypox	≤ 0.163 mcg
Gentamicin Sulfate	Antimicrobial	Fluarix Quad	Influenza	≤0.15 mcg
Gentamicin Sulfate	Antimicrobial	FluMist Quad	Influenza	<0.015 mcg/mL
Glutaraldehyde	Inactivating Agent	Adacel	Tdap	<50 ng (residual)
Glutaraldehyde	Inactivating Agent	Boostrix	Tdap	Amount not specified in package insert
Glutaraldehyde	Inactivating Agent	Daptacel	DTaP	<50 ng (residual)
Glutaraldehyde	Inactivating Agent	Infanrix	DTaP	Amount not specified in package insert
Glutaraldehyde	Inactivating Agent	Kinrix	DTaP+IPV	Amount not specified in package insert
Glutaraldehyde	Inactivating Agent	Pediarix	DTaP+HepB+IPV	Amount not specified in package insert
Glutaraldehyde	Inactivating Agent	Pentacel	DTaP+IPV+Hib	<50 ng (residual)
Glutaraldehyde	Inactivating Agent	Quadracel	DTaP+IPV	<50 ng

Excipient	Purpose	Vaccine Name	Vaccine Type	Amount per 0.5 mL Dose
Glutaraldehyde	Inactivating Agent	Vaxelis	DTaP+IPV+HepB	50 ng
Glycerin	Medium nutrient	BCG Vaccine	BCG	Amount not specified in package insert
Hexadecyltrimethylammonium Bromide	Protein Purifier	Typhim Vi	Typhoid	Amount not specified in package insert
Histidine	Medium Nutrient	Bexsero	Meningococcal B	0.776 mg
Histidine	Medium Nutrient	Trumenba	Meningococcal Group B	10 mM
Host cell Proteins	Residual medium	COVID-19 vaccine by Janssen*	COVID-19	≤0.15 mcg
Host cell Proteins	Residual Medium	Shingrix	Zoster	≤3.0%
Hydrocortisone	Medium Nutrient	Fluad	Influenza	≤0.0025 ng
Hydrocortisone	Medium Nutrient	Fluad Quad	Influenza	≤0.005 ng
Hydrocortisone	Medium Nutrient	Fluarix Quad	Influenza	≤0.0015 mcg
Iron ammonium citrate	Medium Nutrient	BCG Vaccine	BCG	Amount not specified in package insert
Kanamycin	Antimicrobial	Bexsero	Meningococcal B	<0.01 mcg
Kanamycin	Antimicrobial	Fluad	Influenza	≤0.03 mcg
Kanamycin	Antimicrobial	Fluad Quad	Influenza	≤0.03 mcg
Lactalbumin Hydrolysate	Medium Nutrient	Kinrix	DTaP+IPV	Ingredient in growth medium
Lactalbumin Hydrolysate	Medium Nutrient	Pediarix	DTaP+HepB+IPV	Ingredient in growth medium
Lactose	Stabilizer	BCG Vaccine	BCG	Amount not specified in package insert
Lactose	Stabilizer	Hiberix	Hib	12.6 mg
Lactose	Stabilizer	Menomune	Meningococcal	2.5-5 mg
Lactose	Stabilizer	Priorix	MMR	32 mg anhydrous lactose
Lactose	Stabilizer	Vivotif	Typhoid	<180-200 mg/capsule
L-cystine	Medium Nutrient	Rotarix	Rotavirus	Amount not specified in package insert
L-histidine	Medium Nutrient	Gardasil	HPV	0.78 mg
L-histidine	Medium Nutrient	Gardasil 9	HPV	0.78 mg
L-histidine	Medium Nutrient	Vaxneuvance	Pneumococcal 15	1.55 mg
L-tyrosine	Medium Nutrient	Rotarix	Rotavirus	Amount not specified in package insert
Magnesium Stearate	Lubricant for capsule filling	Vivotif	Typhoid	3.6-4.0 mg/capsule
Magnesium Sulfate	Medium Nutrient	BCG Vaccine	BCG	Amount not specified in package insert
Magnesium Sulfate	Medium Nutrient	Rotarix	Rotavirus	Amount not specified in package insert
Mannitol	Stabilizer	Priorix	MMR	8 mg
MF59	Adjuvant	Fluad	Influenza	Amount not specified in package insert
MF59	Adjuvant	Fluad Quad	Influenza	Amount not specified in package insert
Monosodium glutamate	Stabilizer	FluMist Quad	Influenza	0.188 mg/0.2 mL dose
Monosodium L-glutamate	Stabilizer	ProQuad	MMRV	0.40 mg
Monosodium L-glutamate	Stabilizer	Varivax	Varicella	0.5 mg
Monosodium L-glutamate	Stabilizer	Zostavax	Varicella Zoster	0.62 mg/0.65 mL dose
Mouse Serum Protein	Manufacturing Residue	JE-Vax	Japanese Encephalitis	<50 ng/1 mL dose
MRC-5	Manufacturing Residue	Havrix	HepA	≤5 mcg/mL
MRC-5	Manufacturing Residue	Imovax	Rabies	Amount not specified in package insert
MRC-5	Growth Medium	Pentacel	DTaP+IPV+Hib	Amount not specified in package insert
MRC-5	Manufacturing Residue	Priorix	MMR	Amount not specified in package insert
MRC-5	Manufacturing Residue	ProQuad	MMRV	Residual
MRC-5	Manufacturing Residue	Quadracel	DTaP+IPV	Ingredient in growth medium
MRC-5	Manufacturing Residue	Twinrix	HepA+HepB	≤2.5 mcg/mL
MRC-5	Manufacturing Residue	Vaqtac	HepA	Amount not specified in package insert
MRC-5	Manufacturing Residue	Varivax	Varicella	Residual component
MRC-5	Manufacturing Residue	Zostavax	Varicella Zoster	Residual
Neomycin	Antimicrobial	Fluad	Influenza	≤0.02 mcg
Neomycin	Antimicrobial	Fluad Quad	Influenza	≤0.02 mcg
Neomycin	Antimicrobial	Fluvirin	Influenza	≤2.5 mcg
Neomycin	Antimicrobial	IPOL	IPV	<5 ng
Neomycin	Antimicrobial	Kinrix	DTaP+IPV	≤0.05 ng
Neomycin	Antimicrobial	MMR-II	MMR	25 mcg
Neomycin	Antimicrobial	Pediarix	DTaP+HepB+IPV	≤0.05 ng
Neomycin	Antimicrobial	Pentacel	DTaP+IPV+Hib	<4 pg
Neomycin	Antimicrobial	ProQuad	MMRV	<16 mcg
Neomycin	Antimicrobial	Quadracel	DTaP+IPV	<4 pg
Neomycin	Antimicrobial	RabAvert	Rabies	<10 mcg/1 mL dose
Neomycin	Antimicrobial	Vaqtac	HepA	<10 ppb (residual)
Neomycin	Antimicrobial	Varivax	Varicella	Trace amounts
Neomycin	Antimicrobial	Vaxelis	DTaP+IPV+HepB	<5 ng
Neomycin	Antimicrobial	Zostavax	Varicella Zoster	Trace amounts
Neomycin Sulfate	Antimicrobial	Afluria Quad	Influenza	≤81.8 ng
Neomycin Sulfate	Antimicrobial	Havrix	HepA	≤40 ng/mL
Neomycin Sulfate	Antimicrobial	Imovax	Rabies	<150 mcg/mL
Neomycin Sulfate	Antimicrobial	Priorix	MMR	≤25 mcg

Excipient	Purpose	Vaccine Name	Vaccine Type	Amount per 0.5 mL Dose
Neomycin Sulfate	Antimicrobial	Twinrix	HepA+HepB	≤20 ng/mL
Nonylphenol Ethoxylate	Surfactant	Fluvirin	Influenza	≤0.015% w/v
Octoxynol-10 (Triton X-100)	Surfactant	Fluarix Quad	Influenza	≤0.115 mg
Octoxynol-10 (Triton X-100)	Surfactant	Flublok Quad	Influenza	≤100 mcg
Octylphenol Ethoxylate (Triton X-100)	Surfactant	FluZone High-Dose Quad	Influenza	≤350 mcg/0.7 mL dose
Octylphenol Ethoxylate (Triton X-100)	Surfactant	FluZone Intradermal Quad	Influenza	≤55 mcg/0.1 mL dose
Octylphenol Ethoxylate (Triton X-100)	Surfactant	FluZone Quad	Influenza	≤250 mcg
Peptone, Soy	Medium Nutrient	Prevnar 13	Pneumococcal 13-valent	Ingredient in growth medium
Peptone, Soy	Medium Nutrient	Prevnar 20	Pneumococcal 20-valent	Ingredient in growth medium
Peptone, Soy	Medium Nutrient	Recombivax HB	HepB	Ingredient in fermentation medium
Peptone, Soy	Medium Nutrient	Vaxneuvance	Pneumococcal 15	Amount not specified in package insert
Phenol	Preservative	PedvaxHIB	Hib+HepB	Ingredient in purification
Phenol	Preservative	Pneumovax 23	Pneumococcal 23-valent	Saline containing 0.25% phenol
Phenol	Preservative	Typhim Vi	Typhoid	0.25%
Phenol Red Indicator	pH indicator, dye	Imovax	Rabies	20 mcg/mL
Phenol Red Indicator	pH indicator, dye	Rotarix	Rotavirus	Ingredient in growth medium
Phosphate Buffer	Buffer	Afluria Quad	Influenza	20 mcg monobasic potassium phosphate 80 mcg monobasic sodium phosphate 300 mcg dibasic sodium phosphate
Phosphate Buffer	Buffer	Comirnaty (Pfizer)	COVID-19	0.07 mg/0.3 mL dose dibasic sodium phosphate dihydrate 0.36 mg/0.3 mL dose sodium chloride 0.01 mg/0.3 mL dose monobasic potassium phosphate
Phosphate Buffer	Buffer	Flublok Quad	Influenza	0.195 mcg monobasic sodium phosphate 1.3 mg dibasic sodium phosphate
Phosphate Buffer	Buffer	FluMist Quad	Influenza	0.96 mg/0.2 mL dose monobasic potassium phosphate 2.26 mg/0.2mL dose dibasic potassium phosphate
Phosphate Buffer	Buffer	FluZone High-Dose Quad	Influenza	Sodium phosphate-buffered isotonic sodium chloride solution - "quantity sufficient to appropriate volume"
Phosphate Buffer	Buffer	FluZone Intradermal Quad	Influenza	Sodium phosphate-buffered isotonic sodium chloride solution - "quantity sufficient to appropriate volume"
Phosphate Buffer	Buffer	FluZone Quad	Influenza	Sodium phosphate-buffered isotonic sodium chloride solution - "quantity sufficient to appropriate volume"
Phosphate Buffer	Buffer	Heplisav-B	HepB	9.0 mg/mL sodium chloride 1.75 mg/mL sodium phosphate, dibasic dodecahydrate 0.48 mg/mL sodium phosphate, monobasic dihydrate
Phosphate Buffer	Buffer	Ixiaro	Japanese Encephalitis	Sodium chloride Potassium dihydrogen phosphate Disodium hydrogen phosphate
Phosphate Buffer	Buffer	Menactra	Meningococcal	Sodium phosphate buffered isotonic sodium chloride solution; amount not specified
Phosphate Buffer	Buffer	MenQuadfi	Meningococcal	1.23mg sodium acetate
Phosphate Buffer	Buffer	ProQuad	MMRV	36 mcg potassium phosphate dibasic 72 mcg potassium phosphate monobasic 0.34 mg sodium phosphate dibasic
Phosphate Buffer	Buffer	Rotarix	Rotavirus	Sodium phosphate in DMEM (medium)
Phosphate Buffer	Buffer	RotaTeq	Rotavirus	Sodium phosphate monobasic monohydrate
Phosphate Buffer	Buffer	Spikevax (Moderna)	COVID-19	0.12 mg sodium acetate
Phosphate Buffer	Buffer	Twinrix	HepA+HepB	Amount not specified in package insert
Phosphate Buffer	Buffer	Typhim Vi	Typhoid	0.065 mg disodium phosphate 0.023 mg monosodium phosphate
Phosphate Buffer	Buffer	Varivax	Varicella	0.08 mg potassium phosphate monobasic 0.45 mg sodium phosphate dibasic Sodium phosphate monobasic, trace amounts
Phosphate Buffer	Buffer	Zostavax	Varicella Zoster	0.10 mg/0.65 mL dose potassium phosphate monobasic 0.57 mg/0.65 mL dose sodium phosphate monobasic
Phosphate Buffers	Buffer	Engerix-B	HepB	0.9 mg/mL Disodium phosphate dihydrate 0.7 mg/mL Sodium dihydrogen phosphate dihydrate
Phosphate Buffers	Buffer	Shingrix	Zoster	0.54 mg potassium dihydrogen phosphate 0.160 mg sodium dihydrogen phosphate dihydrate

Excipient	Purpose	Vaccine Name	Vaccine Type	Amount per 0.5 mL Dose
				0.15 mg disodium phosphate anhydrous 0.116 mg dipotassium phosphate
Polydimethylsiloxane	Anifoam	Typhim Vi	Typhoid	Fatty-acid ester-based antifoam
Polyethylene Glycol	Lipid	Comirnaty (Pfizer)	COVID-19	0.05 mg 2[(polyethylene glycol)-2000]-N,N-ditetradecylacetamide/0.3 mL dose
Polyethylene Glycol	Lipid	Spikevax (Moderna)	COVID-19	1.93 mg (SM-102, polyethylene glycol [PEG] 2000 dimyristoyl glycerol [DMG])
Polymyxin	Antimicrobial	Fluvirin	Influenza	≤3.75 mcg
Polymyxin B	Antimicrobial	Afluria Quad	Influenza	≤14 ng
Polymyxin B	Antimicrobial	IPOL	Polio	25 ng
Polymyxin B	Antimicrobial	Kinrix	DTaP+IPV	≤0.01 ng
Polymyxin B	Antimicrobial	Pediarix	DTaP+HepB+IPV	≤0.01 ng
Polymyxin B	Antimicrobial	Pentacel	DTaP+IPV+Hib	<4 pg
Polymyxin B Sulfate	Antimicrobial	Quadracel	DTaP+IPV	<4 pg
Polymyxin B Sulfate	Antimicrobial	Vaxelis	DTaP+IPV+HepB	<25 ng
Polysorbate 20	Surfactant	Flublok Quad	Influenza	≤27.5 mcg (Tween 20)
Polysorbate 20	Surfactant	Havrix	HepA	0.05 mg/mL
Polysorbate 20	Surfactant	Twinrix	HepA+HepB	Amount not specified in package insert
Polysorbate 20	Surfactant	Vaxneuvance	Pneumococcal 15	1 mg
Polysorbate 80	Surfactant	Boostrix	Tdap	≤100 mcg (Tween 80)
Polysorbate 80	Surfactant	COVID-19 vaccine by Janssen*	COVID-19	0.16 mg
Polysorbate 80	Surfactant	Fluad	Influenza	1.175 mg
Polysorbate 80	Surfactant	Fluad Quad	Influenza	≤1500 1.175 mcg
Polysorbate 80	Surfactant	Fluarix Quad	Influenza	≤0.550 mg (Tween 80)
Polysorbate 80	Surfactant	Flucelvac Quad	Influenza	≤1500 mcg (Tween 80)
Polysorbate 80	Surfactant	Flulaval Quad	Influenza	≤887 mcg
Polysorbate 80	Surfactant	Gardasil	HPV	50 mcg
Polysorbate 80	Surfactant	Gardasil 9	HPV	50 mcg
Polysorbate 80	Surfactant	Hepilisav-B	HepB	0.1 mg/mL
Polysorbate 80	Surfactant	Infanrix	DTaP	≤100 mcg (Tween 80)
Polysorbate 80	Surfactant	JE-Vax	Japanese Encephalitis	<0.0007%
Polysorbate 80	Surfactant	Kinrix	DTaP+IPV	≤100 mcg (Tween 80)
Polysorbate 80	Surfactant	Pediarix	DTaP+HepB+IPV	≤100 mcg (Tween 80)
Polysorbate 80	Surfactant	Pentacel	DTaP+IPV+Hib	10 ppm
Polysorbate 80	Surfactant	Prevnar 13	Pneumococcal 13-valent	100 mcg
Polysorbate 80	Surfactant	Prevnar 20	Pneumococcal 20-valent	100 mcg
Polysorbate 80	Surfactant	Quadracel	DTaP+IPV	10 ppm
Polysorbate 80	Surfactant	RotaTeq	Rotavirus	Amount not specified in package insert
Polysorbate 80	Surfactant	Shingrix	Zoster	0.08 mg
Polysorbate 80	Surfactant	Trumenba	Meningococcal Group B	0.018 mg
Polysorbate 80	Surfactant	Vaxelis	DTaP+IPV+HepB	<0.0056%
Porcine DNA	Residual Medium	Rotarix	Rotavirus	PCV-1
Porcine DNA	Residual Medium	RotaTeq	Rotavirus	PCV-1 and PCV-2
Potassium Aluminum Sulfate	Adjuvant	Recombivax HB	HepB	Amount not specified in package insert
Potassium Chloride	Buffer	Afluria Quad	Influenza	20 mcg
Potassium Chloride	Buffer	ProQuad	MMRV	60 mcg
Potassium Chloride	Medium Nutrient	Rotarix	Rotavirus	Ingredient in DMEM medium
Potassium Chloride	Buffer	Varivax	Varicella	0.08 mg
Potassium Chloride	Buffer	Zostavax	Varicella Zoster	0.10 mg/0.65 mL dose
Potassium Glutamate	Stabilizer	RabAvert	Rabies	1 mg/1 mL dose
Potassium Phosphate	Medium nutrient	BCG Vaccine	BCG	Amount not specified in package insert
Protamine Sulfate	Protein Purifier	Ixiaro	Japanese Encephalitis	≤1 mcg/mL
Salts, Inorganic	Medium Nutrient	DT	DT	Sodium chloride – Amount not specified in Package Insert
Salts, Inorganic	Medium Nutrient	Twinrix	HepA+HepB	Sodium chloride – Amount not specified in Package Insert
Salts, Mineral	Adjust tonicity	ActHIB	Hib	0.4% sodium chloride in diluent
Salts, Mineral	Adjust tonicity	Afluria Quad	Influenza	4.1 mg sodium chloride
Salts, Mineral	Adjust tonicity	Bexsero	Meningococcal B	3.125 mg sodium chloride
Salts, Mineral	Adjust tonicity	BioThrax	Anthrax	0.85% sodium chloride
Salts, Mineral	Adjust tonicity	Boostrix	Tdap	4.4 mg sodium chloride
Salts, Mineral	Adjust tonicity	COVID-19 vaccine by Janssen*	COVID-19	2.19 mg Sodium chloride
Salts, Mineral	Adjust tonicity	Engerix-B	HepB	9 mg/mL sodium chloride
Salts, Mineral	Adjust tonicity	Flublok Quad	Influenza	4.4 mg sodium chloride
Salts, Mineral	Adjust tonicity	Gardasil	HPV	9.56 mg sodium chloride

Excipient	Purpose	Vaccine Name	Vaccine Type	Amount per 0.5 mL Dose
Salts, Mineral	Adjust tonicity	Gardasil 9	HPV	9.56 mg sodium chloride
Salts, Mineral	Adjust tonicity	Hiberix	Hib	0.9% sodium chloride in diluent
Salts, Mineral	Adjust tonicity	Infanrix	DTaP	4.5 mg sodium chloride
Salts, Mineral	Adjust tonicity	Jynneos	Smallpox and Monkeypox	140 mM Sodium Chloride
Salts, Mineral	Adjust tonicity	Kinrix	DTaP+IPV	4.5 mg sodium chloride
Salts, Mineral	Adjust tonicity	MenQuadfi	Meningococcal	3.35 mg sodium chloride
Salts, Mineral	Adjust tonicity	Pediarix	DTaP+HepB+IPV	4.5 mg sodium chloride
Salts, Mineral	Adjust tonicity	PedvaxHIB	Hib+HepB	0.9% sodium chloride
Salts, Mineral	Adjust tonicity	Pneumovax 23	Pneumococcal 23-valent	Ingredient in isotonic saline solution
Salts, Mineral	Adjust tonicity	Prevnar 20	Pneumococcal 20-valent	4.4 mg sodium chloride
Salts, Mineral	Adjust tonicity	ProQuad	MMRV	2.4 mg sodium chloride
Salts, Mineral	Adjust tonicity	Recombivax HB	HepB	Ingredient in fermentation medium
Salts, Mineral	Adjust tonicity	Rotarix	Rotavirus	In DMEM (Dulbecco's Modified Eagle Medium)
Salts, Mineral	Adjust tonicity	Shingrix	Zoster	4.385 mg sodium chloride
Salts, Mineral	Adjust tonicity	Tenivac	Tetanus+Diphtheria	Sodium chloride – Amount not specified in Package Insert
Salts, Mineral	Adjust tonicity	Twinrix	HepA+HepB	Aluminum salts
Salts, Mineral	Adjust tonicity	Typhim Vi	Typhoid	4.150 mg sodium chloride
Salts, Mineral	Adjust tonicity	Vaqa	HepA	0.9% sodium chloride
Salts, Mineral	Adjust tonicity	Varivax	Varicella	3.2 mg Sodium Chloride
Salts, Mineral	Adjust tonicity	Vaxneuvance	Pneumococcal 15	4.50 mg sodium chloride
Salts, Mineral	Adjust tonicity	YF-Vax	Yellow Fever	Ingredient in Diluent
Salts, Mineral	Adjust tonicity	Zostavax	Varicella Zoster	3.99 mg/0.65 mL dose sodium chloride
Sodium Bicarbonate	Buffer	ProQuad	MMRV	0.17 mg
Sodium Borate	Buffer	Gardasil	HPV	35 mcg
Sodium Borate	Buffer	Gardasil 9	HPV	35 mcg
Sodium Borate	Stabilizer	Vaqa	HepA	70 mcg/mL
Sodium Citrate	Adjust pH	RotaTeq	Rotavirus	Amount not specified in package insert
Sodium Citrate Dihydrate	Buffer	Fluad	Influenza	0.66 mg
Sodium Citrate Dihydrate	Buffer	Fluad Quad	Influenza	0.66 mg
Sodium Deoxycholate	Surfactant	Fluarix Quad	Influenza	≤65 mcg
Sodium Deoxycholate	Surfactant	Flulaval Quad	Influenza	≤50 mcg
Sodium Hydroxide	Adjust pH	RotaTeq	Rotavirus	Amount not specified in package insert
Sodium Metabisulphite	Stabilizer	Ixiaro	Japanese Encephalitis	≤200 ppm
Sodium Pyruvate	Medium Nutrient	Rotarix	Rotavirus	in DMEM (medium)
Sodium Taurodeoxycholate	Protein Purifier	Afluria Quad	Influenza	≤10 ppm (residual)
Sorbitan Trioleate	Stabilizer	Fluad	Influenza	1.175 mg
Sorbitan Trioleate	Stabilizer	Fluad Quad	Influenza	1.175 mg
Sorbitol	Stabilizer, solvent	MMR-II	MMR	14.5 mg
Sorbitol	Stabilizer, solvent	ProQuad	MMRV	1.8 mg
Sorbitol	Stabilizer, solvent	Rotarix	Rotavirus	Amount not specified in package insert
Sorbitol	Stabilizer, solvent	YF-Vax	Yellow Fever	Amount not specified in package insert
Squalene	Adjuvant	Fluad	Influenza	9.75 mg
Squalene	Adjuvant	Fluad Quad	Influenza	9.75 mg
Streptomycin	Antimicrobial	IPOL	Polio	200 ng
Streptomycin sulfate	Manufacturing Residue	Vaxelis	DTaP+IPV+HepB	<200 ng
Succinate Buffer	Stabilizer	Prevnar 13	Pneumococcal 13-valent	295 mcg
Succinate Buffer	Stabilizer	Prevnar 20	Pneumococcal 20-valent	294 mcg
Sucrose	Stabilizer	ActHIB	Hib	8.5%
Sucrose	Stabilizer	Afluria Quad	Influenza	<10 mcg
Sucrose	Stabilizer	Bexsero	Meningococcal B	10 mg
Sucrose	Medium Nutrient	BioThrax	Anthrax	Amount not specified in package insert
Sucrose	Stabilizer	Comirnaty (Pfizer)	COVID-19	31 ng/0.3 mL dose
Sucrose	Stabilizer	FluMist Quad	Influenza	13.68 mg/0.2 mL dose
Sucrose	Stabilizer	JE-Vax	Japanese Encephalitis	40% w/v
Sucrose	Stabilizer	MMR-II	MMR	1.9 mg
Sucrose	Stabilizer	Pentacel	DTaP+IPV+Hib	42.5 mg
Sucrose	Stabilizer	ProQuad	MMRV	21 mg
Sucrose	Stabilizer	Rotarix	Rotavirus	Amount not specified in package insert
Sucrose	Stabilizer	RotaTeq	Rotavirus	Amount not specified in package insert
Sucrose	Stabilizer	Shingrix	Zoster	20 mg
Sucrose	Stabilizer	Spikevax (Moderna)	COVID-19	43.5 mg
Sucrose	Stabilizer	Varivax	Varicella	25 mg
Sucrose	Stabilizer	Vivotif	Typhoid	3.3-34.2 mg/capsule

Excipient	Purpose	Vaccine Name	Vaccine Type	Amount per 0.5 mL Dose
Sucrose	Stabilizer	Zostavax	Varicella Zoster	31.16 mg/0.65 mL dose
Thimerosal	Preservative	Afluria Quad	Influenza	24.5 mcg mercury only in multi-dose vial; none in single dose
Thimerosal	Preservative	Flucelvax Quad	Influenza	<25 mcg mercury only in multi-dose vial; none in single dose
Thimerosal	Preservative	Fluvirin	Influenza	25 mcg mercury/dose in multi-dose vial; ≤1 mcg/dose mercury in prefilled syringe
Thimerosal	Preservative	FluZone Quad	Influenza	25 mcg mercury in multi-dose vial; none in single dose
Thimerosal	Preservative	JE-Vax	Japanese Encephalitis	0.007%
Thimerosal	Preservative	Menomune	Meningococcal	25 mcg mercury/dose in multi-dose diluent; none in single dose
Thimerosal	Manufacturing Residue	TDVax	Tetanus+Diphtheria	≤0.3 mcg mercury (trace amounts)
Trisodium citrate dihydrate	Acid stabilizer	COVID-19 vaccine by Janssen*	COVID-19	2.02 mg
Tromethamine	Stabilizer	Comirnaty (Pfizer)	COVID-19	0.06 mg/0.3 mL dose
Tromethamine	Stabilizer	Jynneos	Smallpox and Monkeypox	10 mM
Tromethamine	Stabilizer	Spikevax (Moderna)	COVID-19	0.31 mg
Tromethamine Hydrochloride	Stabilizer	Comirnaty (Pfizer)	COVID-19	0.4 mg/0.3 mL dose
Tromethamine Hydrochloride	Stabilizer	Spikevax (Moderna)	COVID-19	1.18 mg
Vero Cells	Growth Medium	IPOL	Polio	Amount not specified in package insert
Vero cells	Medium Nutrient	Ixiaro	Japanese Encephalitis	Amount not specified in package insert
Vero Cells	Growth Medium	Kinrix	DTaP+IPV	Amount not specified in package insert
Vero Cells	Growth Medium	Pediarix	DTaP+HepB+IPV	Amount not specified in package insert
Vero Cells	Growth Medium	Rotarix	Rotavirus	Amount not specified in package insert
Vero Cells	Growth Medium	RotaTeq	Rotavirus	Amount not specified in package insert
Vitamins	Medium Nutrient	BioThrax	Anthrax	Ingredient in growth medium
Vitamins	Medium Nutrient	DT	DT	Ingredient in growth medium
Vitamins	Protein Purifier	Fluarix Quad	Influenza	≤0.135 mg α-tocopheryl hydrogen succinate
Vitamins	Protein Purifier	Flublok Quad	Influenza	Ingredient in growth medium
Vitamins	Protein Purifier	Flulaval Quad	Influenza	≤320 mcg α-tocopheryl hydrogen succinate
Vitamins	Medium Nutrient	Gardasil	HPV	Amount not specified in package insert
Vitamins	Medium Nutrient	Gardasil 9	HPV	Amount not specified in package insert
Vitamins	Medium Nutrient	HepLisav-B	HepB	Amount not specified in package insert
Vitamins	Medium Nutrient	Rotarix	Rotavirus	Amount not specified in package insert
Xanthan	Thickening agent	Rotarix	Rotavirus	Ingredient in diluent
Yeast	Medium Nutrient	Engerix-B	HepB	≤5% yeast protein
Yeast	Medium Nutrient	Gardasil	HPV	<7 mcg yeast protein
Yeast	Medium Nutrient	Gardasil 9	HPV	<7 mcg yeast protein
Yeast	Medium Nutrient	HepLisav-B	HepB	Yeast protein: residual amounts (≤5.0% of total protein) Yeast DNA: <20 pg
Yeast	Medium Nutrient	Menveo	Meningococcal	Amount not specified in package insert
Yeast	Medium Nutrient	Pediarix	DTaP+HepB+IPV	≤5% yeast protein
Yeast	Medium Nutrient	Prevnar 13	Pneumococcal 13-valent	Ingredient in growth medium
Yeast	Medium Nutrient	Prevnar 20	Pneumococcal 20-valent	Ingredient in growth medium
Yeast	Medium Nutrient	Recombivax HB	HepB	<1% yeast protein
Yeast	Medium Nutrient	Twinrix	HepA+HepB	≤5% yeast protein
Yeast	Medium Nutrient	Vaxelis	DTaP+IPV+HepB	≤0.1 mcg
Yeast	Medium Nutrient	Vaxneuvance	Pneumococcal 15	Amount not specified in package insert
Yeast	Medium Nutrient	Vivotif	Typhoid	Amount not specified in package insert

This information is correct to the best of our knowledge. Any inaccuracies should be reported to us at info@hopkinsvaccine.org

This table was last updated on March 1, 2023 | © 2023 Institute for Vaccine Safety