



## Pharmaceutical Excipients IR Library

### *Library Listing – 300 spectra*

This library is designed for those laboratories studying pharmaceutical formulations using FT-IR spectroscopy. It provides high quality FT-IR spectra of the most common pharmaceutical excipients.

The 300 spectra in the Pharmaceutical Excipients Library were collected using a Thermo FT-IR spectrometer. All materials were tested via current United States Pharmacopoeia compendium methodology for identity and purity – only materials that passed these methods were used to create this library. Customers may purchase the library as an FT-IR only, Raman only (see Raman Library section) or as a matched FT-IR and Raman library (see FT-IR and Raman Matched Library section). It includes a textbook explaining spectroscopy techniques and the spectra of pharmaceutical excipients for reference use.

The Pharmaceutical Excipients Library was created in collaboration with David E. Bugay and W. Paul Findlay of Bristol-Myers Squibb Pharmaceutical Research Institute. The spectra were collected using a Nicolet FT-IR spectrometer from Thermo. All solid phase excipients were sampled for FT-IR analysis using diffuse reflectance to assure that the spectra truly represented the physical nature of the pharmaceutical solid.

## Pharmaceutical Excipients IR Library

<u>Index</u>	<u>Compound Name</u>	<u>Index</u>	<u>Compound Name</u>
1	Acacia	65	Corn Starch Acrylamide Sodium
2	Acetic Acid		Acrylate Copolymer, A-222
3	Acetone	66	Corn Starch Acrylamide Sodium
4	Acetyltributyl Citrate		Acrylate Copolymer, D-212
5	Acetyltriethyl Citrate	60	Corn Starch, B700
6	Acrylamide/Sodium Acrylate	61	Corn Starch, B810
	Copolymer, G-400	62	Corn Starch, B880
7	Acrylic Acid Copolymer	63	Corn Starch, B890
8	Adipic Acid	67	Corn Syrup Solids, M200
9	Agar	68	Corn Syrup Solids, M250
10	Alcohol	69	Corn Syrup Solids, M365
11	Alginic Acid	70	Cottonseed Oil
13	Ammonium Acetate	71	Croscarmellose Sodium
14	Ammonium Phosphate Dibasic	72	Crospovidone
16	Apricot Kernel Oil PEG-6 Esters	74	D&C Red #27 Lake
17	Ascorbic Acid	75	D&C Yellow #10 Lake
18	Ascorbyl Palmitate	107	D-Fructose
19	Aspartame	156	DL-Malic Acid
21	Benzaldehyde	283	DL-Tartaric Acid
22	Benzalkonium Chloride	76	Denatonium Benzoate
23	Benzethonium Chloride	77	Dextrates
24	Benzoic Acid	78	Dextrin
25	Benzophenone	79	Diacetylated Monoglyceride, 9-40
26	Benzyl Alcohol	80	Dibutyl Phthalate
27	Benzyl Benzoate	81	Dibutyl Sebacate, NF
28	Boric Acid	82	Dichloromethane
29	Butyl Alcohol	83	Diethyl Phthalate, NF
31	Butylated Hydroxyanisole	84	Diethylene Glycol Monoethyl Ether
32	Butylated Hydroxytoluene	85	Dimethicone, NF 20
33	Caffeine	86	Dimethyl Sulfoxide
34	Calcium Acetate, Monohydrate	87	Dioctyl Phthalate
35	Calcium Carbonate	88	Docusate Sodium
36	Calcium Phosphate Dibasic, Dihydrate	89	Edetate Disodium, Dihydrate
37	Calcium Phosphate Tribasic	90	Ethyl Acetate
38	Calcium Silicate	91	Ethyl Maltol
39	Calcium Sulfate	92	Ethylcellulose, Medium, Viscosity=50
40	Calcium Sulfate, Dihydrate	93	Ethylcellulose, Medium, Viscosity=70
41	Carbomer, 934P	95	Ethylcellulose, Standard, Viscosity=10
42	Carbopol, 1342 NF Resin	96	Ethylcellulose, Standard, Viscosity=100
43	Carboxymethylcellulose Sodium	94	Ethylcellulose, Standard, Viscosity=4
44	Carrageenan	97	Ethylparaben
45	Castor Oil	98	FD&C Blue #2 Lake
50	Cellulose Acetate Phthalate	99	FD&C Blue #2 Powder
51	Cellulose Acetate	100	FD&C Red #3 Powder
	Trimellitate/Trimellitic Acid	101	FD&C Red #40 Lake
46	Cellulose, Microcrystalline 50M	102	FD&C Red #40 Powder
47	Cellulose, Microcrystalline 90M	103	FD&C Yellow #5 Lake
48	Cellulose, Microcrystalline Ph102	104	FD&C Yellow #5 Powder
49	Cellulose, Microcrystalline Ph200	105	FD&C Yellow #6 Lake
52	Cetrimide	106	FD&C Yellow #6 Powder
53	Cetyl Alcohol	108	Fumaric Acid
54	Cetylpyridinium Chloride, Anhydrous	109	Gelatin
55	Chloroform	110	Gentisic Acid Ethanolamide
56	Cholesterol	111	Glucose
57	Citric Acid, Anhydrous	112	Glycerin
58	Citric Acid, Monohydrate	113	Glycerol Mono-/Di-Caprylate/Caprates,
59	Corn Oil PEG-6 Esters		742
64	Corn Starch Acrylamide Sodium	114	Glycerol Stearate, 191
	Acrylate Copolymer, A-140	115	Glyceryl Behenate
		116	Glyceryl Caprylate, 988

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118	Glyceryl Laurate, 312	166	Mannitol, Parenteral
119	Glyceryl Monooleate, 18-92	167	Mannitol, Powder
120	Glyceryl Monooleate, 18-99	168	Meglumine
121	Glyceryl Palmitostearate	169	Menthol
122	Guanine	170	Methacrylic Acid Copolymer
123	Gum, Guar	171	Methanol
124	Gum, Xanthan	172	Methyl Salicylate
125	Hard Fat, AM	175	Methylcellulose, A15C PREM
126	Hexylene Glycol	176	Methylcellulose, A15LV PREM
127	Hydroxyethyl Cellulose	173	Methylcellulose, A4C PREM
128	Hydroxypropyl Cellulose	174	Methylcellulose, A4M PREM
135	Hydroxypropyl Methylcellulose 2208, K100M PREM CR	177	Methylparaben
134	Hydroxypropyl Methylcellulose 2208, K15M PREM CR	178	Mineral Oil
138	Hydroxypropyl Methylcellulose 2910, E10M PREM CR	179	Mineral Oil, Light
137	Hydroxypropyl Methylcellulose 2910, E4M PREM CR	180	Monoammonium Glycyrrhizinate, 100
136	Hydroxypropyl Methylcellulose 2910, E6 PREM	181	Monoammonium Glycyrrhizinate, 110
139	Hydroxypropyl Methylcellulose Acetate Succinate, AS-LF	182	Monoammonium Glycyrrhizinate, 180
140	Hydroxypropyl Methylcellulose Phthalate, 50	183	Monoethanolamine
141	Hydroxypropyl Methylcellulose Phthalate, 55	184	Monothioglycerol
130	Hydroxypropyl Methylcellulose, E15LV PREM	185	Octanoic Acid, Sodium Salt
129	Hydroxypropyl Methylcellulose, E3 PREM	186	Oleyl Alcohol, NF
131	Hydroxypropyl Methylcellulose, F4 PREM	189	Opadry Blue, OY-6529
133	Hydroxypropyl Methylcellulose, K100M PREM	188	Opadry II, Y-22-7719
132	Hydroxypropyl Methylcellulose, K3 PREM	190	Opadry White, OY-7300
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144	Isopropyl Myristate	187	Opadry, YS-1-2546
145	Isopropyl Palmitate	192	Orange Mandrian
146	Kaolin	193	Orange Terpeneless
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147	Lactic Acid	195	Peanut Oil
148	Lactose, Anhydrous	196	Petrolatum
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154	Magnesium Stearate	206	Polyethylene Glycol 8 Caprylic/Capric Glycerides
155	Magnesium Sulfate, Anhydrous	201	Polyethylene Glycol, 1000 NF, FCC
157	Maltitol, MR-20	200	Polyethylene Glycol, 300 NF
158	Maltodextrin, M040	203	Polyethylene Glycol, 3350 Flake NF
159	Maltodextrin, M050	202	Polyethylene Glycol, 540 Blend NF
160	Maltodextrin, M100	204	Polyethylene Glycol, 8000 Powder NF, FCC
161	Maltodextrin, M150	205	Polyethylene Glycol, Compound 20 M Flake FCC
162	Maltodextrin, M180	210	Polyethylene Oxide, 1105
163	Maltol	209	Polyethylene Oxide, 205
164	Mannitol, Granular	214	Polyethylene Oxide, Coagulant
		213	Polyethylene Oxide, N-60000
		212	Polyethylene Oxide, N-750
		211	Polyethylene Oxide, N-80
		215	Polyglyceryl Oleate, FCC
		216	Polyoxyl 35 Castor Oil
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223	Potassium Metabisulfite	265	Sorbic Acid
224	Potassium Phosphate, Monobasic	266	Sorbitan Monopalmitate
225	Potassium Sodium Tartrate, Tetrahydrate	267	Sorbitan Monostearate
226	Potassium Sorbate	268	Sorbitan Trioleate
227	Povidone	269	Sorbitan Tristearate
228	Propionic Acid	270	Sorbitol
229	Propylene Carbonate	271	Soybean Oil
230	Propylene Glycol	272	Starch, Fully Pregelatinized 1551
231	Propylene Glycol Laurate, FCC	273	Starch, Partially Pregelatinized 1500
232	Propylparaben	274	Starch, Partially Pregelatinized 1500LM
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234	Riboflavin	276	Stearyl Alcohol
235	Saccharin	277	Succinic Acid
236	Saccharin Sodium, Dihydrate	278	Sucrose
237	Safflower Oil	279	Sucrose Octaacetate
238	Saturated Polyglycolyzed Glycerides, 44/14	280	Sugar, Confectioner's
239	Saturated Polyglycolyzed Glycerides, 50/13	281	Sulfanilamide
240	Saturated Polyglycolyzed Glycerides, 53/10	282	Talc
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243	Simethicone, Emulsion USP	286	Titanium Dioxide
244	Simethicone, GS	287	Triacetin
245	Simethicone, USP	288	Tributyl Citrate
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247	Sodium Alginate	290	Triethyl Citrate
248	Sodium Ascorbate	291	Triton, X-100
249	Sodium Benzoate	292	Urea
250	Sodium Bicarbonate	293	Vanillin
251	Sodium Borate	294	Vegetable Oil, Hydrogenated Type I
252	Sodium Carbonate	295	Vinyl Acetate Crotonic Acid Copolymer
253	Sodium Citrate, Dihydrate	296	Vinylpyrrolidone-Vinyl Acetate Copolymer, VA64
254	Sodium Cyclamate	297	Water, Purified
255	Sodium Lauryl Sulfate	298	Wax, Carnauba
256	Sodium Metabisulfite	299	Wax, Emulsifying
257	Sodium Phosphate Dibasic, Anhydrous	300	Wheat Germ Oil
258	Sodium Phosphate Monobasic, Anhydrous	73	beta-Cyclodextrin
259	Sodium Propionate, Anhydrous	12	d-Alpha Tocopheryl Polyethylene Glycol 1000 uccinate
260	Sodium Starch Glycolate	30	n-Butylamine
261	Sodium Stearate	43	sec-Isopropyl Alcohol
262	Sodium Stearyl Fumarate	15	trans-Anethole