

## **NICODOM FTIR Food Additives – „E numbers“**

The infrared spectral library „NICODOM FTIR Food Additives“ contains 278 FTIR spectra of food additives known also as „E numbers“ (according to EU legislation).

The library contains typical food additives allowed in European Union such as Acidity Regulators, Anticaking Agents, Antifoaming Agents, Antioxidants, Bulking Agents, Colour Fixatives, Colours, Emulsifiers, Enzymes, Firming Agents, Flavour Enhancers, Gelling Agents, Glazing Agents, Humectants, Mineral Salts, Preservatives, Propellants, Raising Agents, Sequestrants, Stabilisers, Sweeteners, Thickeners.

The spectra are sorted by the E numbers:

Colouring additives (E100 -)

Preservatives (E200-)

Antioxidants (E300-)

Etc.

The spectra were collected using the FTIR Spectrometer Nexus 670™ (Thermo) and the Miracle™ single bounce ATR accessory (Pike Technologies) equipped by silicon crystal.

The spectra were collected with resolution 2cm<sup>-1</sup> (the library has resolution 4cm<sup>-1</sup>) in the spectral range 600-4000 cm<sup>-1</sup>, measurement time 1 minute, the instrument was purged by dried air.

Information about the sample contains:

Name

E Number

CAS Number

Chemical Formula

Type, Purpose

Comment (e.g. Where is it used, Daily intake, Recommendation, Side effects, Danger....)

## List of Spectra

The Following list contains only the compound name and E number. The original list delivered with the library will contain the complete information containing Name, E Number, CAS Number, Chemical Formula, Type, Purpose, Danger (when available).

E100	Curcumin, Turmeric
E101	Riboflavin
E101a	Riboflavin-5'-Phosphate
E102	FD&C Yellow 5, Tartrazine
E103	Chrysoine, resorcinol
E104	Quinoline yellow
E105	Fast Yellow AB
E106	Riboflavin-5-Sodium Phosphate
E107	Yellow 2G
E110	FD&C Yellow 6, Sunset Yellow FCF, Orange Yellow S
E111	Orange GGN, Acid Orange 20, alpha-Naphthol Orange
E120	Cochineal, Carminic acid, Carmines, Natural Red 4
E121	Orcein, Orchil, C.I. natural red 28
E122	Carmoisine, Azorubine
E123	FD&C Red 2, Amaranth
E124	Ponceau 4R, Cochineal Red A, Brilliant Scarlet 4R
E125	Ponceau SX, Scarlet GN, FD&C Red No. 4
E126	Ponceau 6R
E127	FD&C Red 3, Erythrosine
E128	Red 2G, ACID RED 1
E129	FD&C Red 40, Allura Red AC
E131	Patent Blue V
E132	FD&C Blue 2, Indigo carmine, Indigotine
E133	FD&C Blue 1, Brilliant Blue FCF
E141i	Copper complexes of chlorophyllins and chlorophylls
E142	Greens S
E143	Fast green FCF
E150a	Plain Caramel
E150b	Caustic sulfite caramel
E150c	Ammonia caramel
E150d	Sulfite ammonia caramel
E151	Black PN Brilliant Black BN
E154	Brown FK Kipper Brown
E155	Brown HT Chocolate brown HT
E160aiii	Beta-carotene
E160b	Annatto bixin norbixin

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E160c	Capsanthin, capsorubin, Paprika extract
E161a	Flavoxanthin
E161b	Lutein
E162	Beetroot Red, Betanin
E163	Anthocyanins
E170	Calcium carbonate Chalk
E171	Titanium dioxide
E172i	Fe <sub>2</sub> O <sub>3</sub>
E180	Pigment Rubine, Lithol Rubine BK
E181	Tannin
E200	Sorbic acid
E202	Potassium sorbate
E210	Benzoic acid
E211	Sodium benzoate
E212	Potassium benzoate
E214	Ethyl para-hydroxybenzoate
E215	Sodium ethyl para-hydroxybenzoate
E216	4-Propyl hydroxybenzoate = Propylparaben
E218	4-Methyl hydroxybenzoate = Methylparaben
E221	Sodium sulfite
E223	Sodium metabisulfite
E224	Potassium metabisulfite
E225	Sodium sulfite
E230	Biphenyl, diphenyl
E231	Orthophenyl phenol
E236	Formic acid
E237	Sodium formate
E238	Calcium formate
E239	Hexamethylene tetramine Hexamine
E240	Formaldehyde
E249	Potassium nitrite
E250	Sodium nitrite
E251	Sodium nitrate
E252	Potassium nitrate
E260	Acetic acid
E261	Potassium acetate
E262i	Sodium acetate
E263	Calcium acetate
E264	Ammonium acetate
E270	Lactic acid
E280	Propionic acid
E281	Sodium propionate
E284	Boric acid
E285	Sodium tetraborate (borax)

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E296	D-Malic acid
E297	Fumaric acid
E300	Ascorbic acid (Vitamin C)
E304i	Ascorbyl palmitate
E307	Alpha-tocopherol (synthetic)
E310	Propyl gallate
E315	Erythorbic acid, D-Isoascorbic Acid
E317	Erythorbin acid
E320	Butylated hydroxyanisole (BHA)
E321	Butylated hydroxytoluene (BHT)
E322	Lecithin
E325	Sodium lactate
E326	Potassium lactate
E327	Calcium Lactate
E329	Magnesium lactate
E330	Citric acid
E331i	Monosodium citrate
E331ii	Disodium citrate
E331iii	Trisodium Citrate Dihydrate
E332ii	Tripotassium citrate
E333iii	Tricalcium Citrate Tetrahydrate
E334	Tartaric acid (L(+)-)
E335i	Monosodium tartrate
E335ii	Disodium tartrate
E336i	Monopotassium tartrate
E336ii	Dipotassium tartrate
E337	Sodium potassium tartrate
E339i	Monosodium phosphate
E339ii	Disodium phosphate
E339iii	Trisodium phosphate
E340i	Monopotassium Phosphate
E340ii	Dipotassium Phosphate
E340iii	Tripotassium phosphate
E341i	Monocalcium phosphate, Calcium Phosphate Monobasic
E341ii	Calcium Hydrogenphosphate
E341iii	Tricalcium phosphate
E342	Ammonium Phosphate
E345	Magnesium Citrate
E355	Adipic acid
E363	Succinic acid
E370	1,4-Heptonolactone
E375	Nicotinic acid, Niacin, Nicotinamide, Vitamin B3
E380	Triammonium citrate
E381	Ammoniumferrocitrate, Ammonium ferric citrate

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E385	Calcium Disodium Edetate
E386	Disodium edetate dihydrate
E389	Dilauryl thiodipropionate
E390	Distearyl thiodipropionate
E399	Calcium Lactobionate
E406	Agar
E407	Carrageenan
E408	Furcelleran
E413	Tragacanth
E414	Acacia gum (gum arabic)
E415	Xanthan gum
E420i	Sorbitol
E421	Mannitol
E422	Glycerol
E430	Polyoxyethene (8) stearate
E431	Polyoxyethene (40) stearate
E432	Tween 20, POE (20) sorbitan monolaurate
E433	Tween 80, POE (20) sorbitan monooleate
E434	Tween 40, POE (20) sorbitan monopalmitate
E435	Tween 60, POE (20) sorbitan monostearate
E436	Tween 65, POE (20) sorbitan tristearate
E440i	Pectin
E441	Gelatine
E445	Glycerol esters of wood rosins
E450iii	Tetrasodium diphosphate
E451i	Pentasodium triphosphate
E459	Beta-cyclodextrine
E460i	Microcrystalline cellulose
E460ii	Powdered cellulose
E461	Methyl Cellulose
E462	Ethyl cellulose
E463	Hydroxypropyl Cellulose
E464	Hydroxy propyl methyl cellulose
E466	Carboxy methyl cellulose, Sodium carboxy methyl cellulose
E467	Ethyl hydroxyethyl cellulose, 2-hydroxyethyl ether of ethyl cellulose
E468	Crosslinked sodium carboxymethyl cellulose
E470a	Sodium potassium and calcium salts of fatty acids
E471i	glyceryl monostearate
E475	Polyglycerol esters of fatty acids
E476	Polyglycerol polyricinoleate
E487	Sodium Laurylsulfate
E488	Ethoxylated mono- and diglycerides, Polyoxyethylated glycerides of tallow fatty acids
E490	Propylene glycol
E491	Sorbitan monostearate, Span 60

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E492	Sorbitan tristearate
E493	Sorbitan monolaurate
E494	Sorbitan monooleate
E495	Sorbitan monopalmitate (Span 40)
E500i	Sodium carbonate
E500ii	Sodium hydrogen carbonate (Bicarbonate of soda)
E501i	Potassium carbonate
E501ii	Potassium hydrogen carbonate
E503i	Ammonium carbonate
E503ii	Ammonium hydrogen carbonate
E504i	Magnesium carbonate
E508	Potassium chloride
E509	Calcium chloride
E510	Ammonium chloride
E511	Magnesium chloride
E512	Stannous chloride
E514i	Sodium Sulfate Anhydrous
E514ii	Sodium hydrogen sulfate
E515i	Potassium sulfate
E516	Calcium sulfate
E517	Ammonium Sulfate
E518	Magnesium sulfate Epsom salts
E519	Copper Sulfate
E520	Aluminium sulfate
E521	Aluminium sodium sulfate
E522	Aluminium potassium sulfate
E523	Aluminium ammonium sulfate
E526	Calcium hydroxide
E529	Calcium oxide
E530	Magnesium oxide
E536	Potassium ferrocyanide
E539	Sodium thiosulfate
E542	Tricalcium phosphate, Bone phosphate
E550	Sodium silicate
E551	Silicon dioxide (Silica)
E552	Calcium silicate
E553b	Talc
E554	Sodium aluminium silicate
E556	Calcium aluminium silicate
E558	Bentonite
E559	Kaolin, Aluminium silicate
E570	Stearic acid
E572i	calcium stearate
E572ii	Magnesium stearate,

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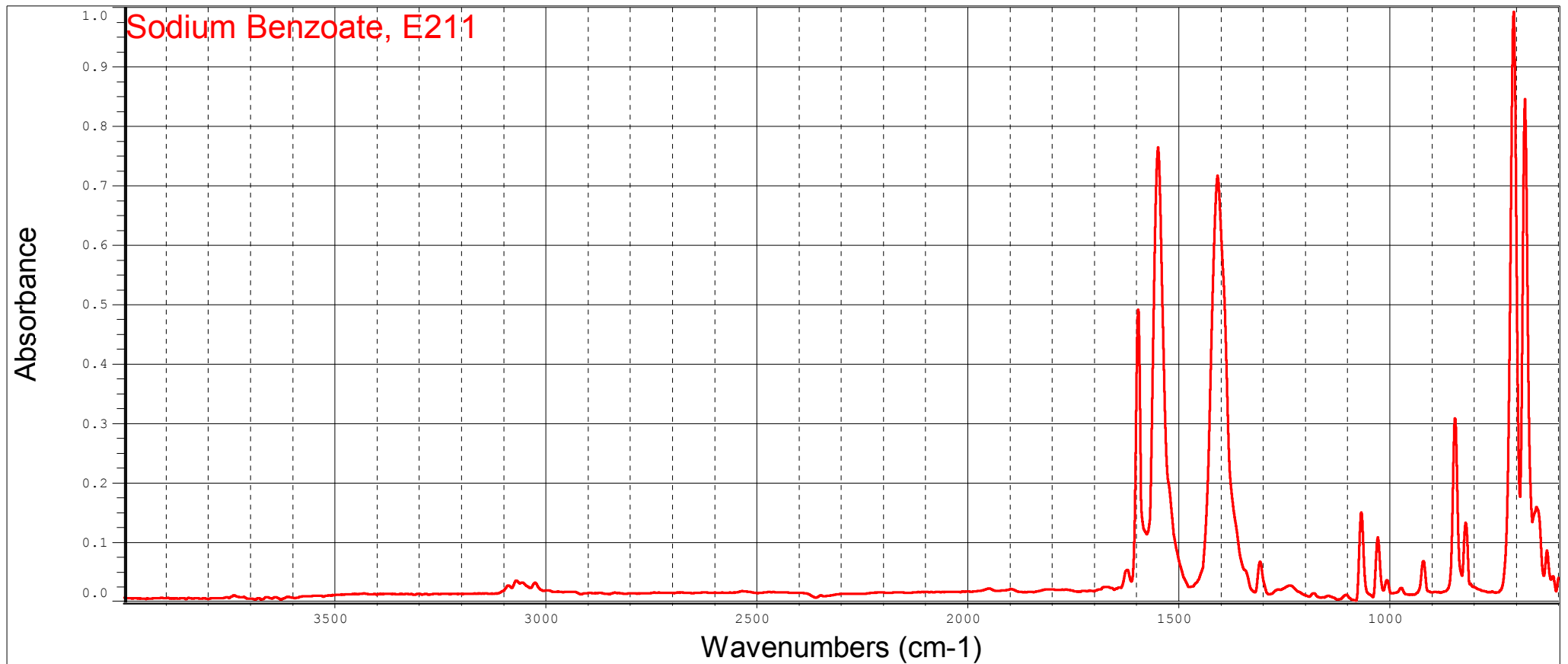
E573	Aluminium stearate
E575	Glucono-delta-lactone
E576	Sodium gluconate
E578	Calcium-D-gluconate
E620	L-Glutamic Acid
E621	Monosodium glutamate
E627	Disodium guanylate
E631	Disodium inosinate
E636	Maltol
E637	Ethyl maltol
E640	Glycine
E641	L-Leucine
E642	L-Lysine hydrochloride
E900	Dimethyl polysiloxane
E901i	Beeswax white
E901ii	Beeswax yellow
E902	Candelilla wax
E903	Carnauba wax
E905	Microcrystalline wax
E907	Crystalline wax, Paraffin wax, hard wax
E910	L-cysteine
E911	Methyl esters of fatty acid
E913	Lanolin, sheep wool grease
E920	L-cysteine hydrochloride
E921	L-cysteine hydrochloride monohydrate
E922	Potassium Persulfate
E923	Ammonium Persulfate
E924	Potassium bromate
E927a	Azodicarbonamide, Bis(azoisobutyronitrile), Perofor
E927b	Carbamide, Urea
E928	Benzoyl peroxide = Dibenzoyl peroxide
E950	Acesulfame K
E951	Aspartame
E952ii	Sodium cyclamate
E954i	Saccharin
E954iii	Saccharin sodium
E957	Thaumatococin
E959	Neohesperidine dihydrochalcone
E966	Lactitol
E967	Xylitol
E999	Quillaia extract
E1000	Cholic acid
E1200	Polydextrose
E1201	Polyvinylpyrrolidone

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E1202	Polyvinylpyrrolidone
E1400	Dextrin
E1401	Modified starch, acid treated starch
E1402	Alkaline modified starch
E1403	Bleached starch
E1404	Oxidized starch
E1422	Acetylated distarch adipate
E1442	Hydroxy propyl distarch phosphate
E1450	Starch sodium octenyl succinate
E1451	Acetylated oxidised starch
E1501i	Benzyl alcohol
E1501ii	Benzyl acetate
E1501iii	Benzyl benzoate
E1502	1,3-Butanediol
E1503	Castor Oil
E1504	Ethyl acetate
E1505	Triethyl citrate
E1510	Ethanol
E1518	Glyceryl triacetate, triacetin
E1520	Propylene glycol, E490
E1521	Polyethyleneglycol 6000
E1525	Hydroxyethyl Cellulose

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CAS# : 532-32-1 Formula: C<sub>7</sub>H<sub>5</sub>O<sub>2</sub>Na

Type: Preservative, Antiseptic, Antibacterial, Antifungal

Synonyms: Sodium salt of benzoic acid, Benzoate of Soda

m.w.: 144.10507

Found in barbecue sauce, cheesecake mix, fruit pies, margarine, pickled cucumbers, pineapple juice, salad dressing, soya sauce, sweets, milk and meat products, soft drinks.

Not recommended for consumption by children.

Daily intake: Up to 6 mg/kg body weight.

Side effects:

No side effects in the concentrations used. May liberate histamine and cause pseudo-allergic reactions.