



PHILIP MORRIS
I N T E R N A T I O N A L

BASE TIPPING PAPER AND INKS
SUBSTANCE INFORMATION DOCUMENT

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April 2021

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BASE TIPPING PAPERS AND INKS

General Information

Uses

The main function of base tipping paper is to attractively hold the filter and rod together. This non-porous paper joins the filter plug and the tobacco rod by completely covering the plug and overlapping the tobacco rod by several millimeters. Base tipping paper is white or may be colored as a primer to be printed with a cork pattern. When standard cellulose acetate filters are used, the entire inner surface of the tipping paper is covered with glue for the joining operation.

Finished tipping paper is printed with inks to provide a cork-like appearance on some brands. Decorative lines and cigarette logo are also printed on some brands. The inks used to print these attributes are collectively called tipping inks.

Composition

A number of various base tipping papers have been evaluated. Table 1 summarizes the base tipping paper ingredients that were disclosed by the vendors.

Table 1.

Ingredient	CAS	E-numbers
Acetyl tributyl citrate	77-90-7	N/A
Acetyl triethyl citrate	77-89-4	N/A
acrylate copolymer	25133-97-5	N/A
Alkyd resin	68458-35-5	N/A
Alkylketene dimer	98246-87-8	N/A
Alkylketene dimer dicyanamide formaldehyde cationic resin	55295-98-2	N/A
Aluminium	7429-90-5	E173
Aluminium hydroxide	21645-51-2	N/A
Aluminium silicate, magnesium sodium salt	12040-43-6	N/A
Aluminum sulfate	10043-01-3	E520
Bismuth oxychloride	7787-59-9	N/A
Calcium carbonate	471-34-1	E170
Carbo medicinalis vegetabilis	7440-44-0 1339-82-8	N/A
Cellulose	9004-34-6 65996-61-4	N/A
Cellulose acetate butyrate	9004-36-8	N/A
Cellulose acetate propionate	9004-39-1	N/A
Chlorite	1318-59-8	N/A
Cobalt & manganese octoates	61789-52-4	N/A
Collodion	9004-70-0	N/A
Diethyl adipate	103-23-1	N/A
Di-isononyl-cyclohexane-1,2-dicarboxylate	166412-78-8	N/A

Ingredient	CAS	E-numbers
Epichlorhydrin resin	25212-19-5	N/A
Ethyl cellulose	9004-57-3	E462
2-ethylhexyl diphenyl phosphate	1241-94-7	N/A
Formaldehyde/acetophenone resin modified	68441-83-8	N/A
Formaldehyde, cyclohexanone copolymer	25054-06-2	N/A
Galactomannanphosphoric ester	78615-64-2	N/A
Glycerol	56-81-5	E422
Guar gum	68411-94-9 9000-30-0	E412
Hydrocarbon resin	68132-00-3 172776-93-1	N/A
Hydroxyethyl cellulose	9004-70-0	N/A
Kaolin	1332-58-7	E559
Magnesium carbonate	546-93-0	E504
Methacrylic acid, ester	9011-15-8 25608-33-7	N/A
Mineral oil	67762-90-7 8042-47-5	E905a
Montana wax	8002-53-7	N/A
Paraffin	8002-74-2	E905c
Pigment allura red ac	68583-95-9	E129
Pigment arylide yellow	6358-31-2	n/a
Pigment azorubin	3567-69-9	E122
Basic Blue 9	61-73-4	N/A
Pigment black 6	1333-86-4	E153
Pigment blue 15:3	147-14-8	N/A
Pigment brilliant black BN	2519-30-4	E151
Pigment brilliant blue fcf	68921-42-6 3844-45-9	E133
Pigment chromium (iii) azo complexe	97862-65-2	N/A
Pigment diarylide yellow	6358-85-6 5567-15-7 5468-75-7	N/A
Pigment erythrosin	12227-78-0 16423-68-0	E127

Ingredient	CAS	E-numbers
Pigment fd&c blue no.1 Al Lake	53026-57-6	E133
Pigment green 7	1328-53-6	N/A
Pigment indigo carmine	860-22-0	E132
Pigment indigotine	16521-38-3	E132
Pigment iron oxide black	1317-61-9	E172
Pigment iron oxide red	1309-37-1	E172
Pigment iron oxide yellow	20344-49-4 51274-00-1	E172
Pigment mica	12001-26-2	N/A
Pigment milori blue	25869-00-5	N/A
Pigment orange 13	3520-72-7	N/A
Pigment orange 24	6410-27-1	N/A
Pigment orange 34	15793-73-4	N/A
Pigment patent blue v	3536-49-0	E131
Pigment phtalocyanine	81457-65-0	N/A
Pigment quinoline yellow	8004-92-0 100208-62-6	E104
Pigment red 122	980-26-7	N/A
Pigment red 177	4051-63-2	N/A
Pigment red 48:2	5280-66-0	N/A
Pigment red 63:1	6417-83-0	N/A
Pigment red lithol bk	5281-04-9	E180
Pigment silver and/or gold	7429-90-5 7440-66-6 7440-50-8	E173 E174
Pigment solvent blue 70	12237-24-0	N/A
Pigment solvent orange 54	85029-59-0	N/A
Pigment solvent yellow 79	12237-31-9	N/A
Pigment solvent yellow 82	85029-58-9	N/A
Pigment solvent yellow 88	85408-46-4	N/A
Pigment solvent yellow 146	94279-65-9	N/A
Pigment sunset yellow fcf	15790-07-5	E110
Pigment tartrazine	12225-21-7 1934-21-0	E102
Pigment violet	17741-63-8	N/A
Pigment violet 3	67989-22-4	N/A

Ingredient	CAS	E-numbers
Pigment violet 23	215247-95-3	N/A
Pigment white 18	1317-65-3	E170
Pigment white 26	14807-96-6	E553b
Pigment yellow 13	5102-83-0	N/A
Pigment yellow 19	10343-55-2	N/A
Pigment yellow 62	12286-66-7	N/A
Polyamide, thermoplastic	68475-99-0	N/A
Polyamide resin	67989-30-4	N/A
Polyester resin	63528-92-7	N/A
Polyethylene glycol	25322-68-3	N/A
Polyethylene wax	9002-88-4 68441-17-8	N/A
Polymethyl methacrylate	9011-14-7	N/A
Polypropylene	9003-07-0	N/A
Polypropylene butylene ethylene terpolymer	25895-47-0	N/A
Polyurethane resin	9057-91-4	N/A
Polyvinol	25213-24-5 9002-89-5 54626-91-4	E1203
Polyvinyl acetate	9003-20-7	N/A
Polyvinylbutyral	68648-78-2	N/A
Resin acids and rosin acids, maleated, esters with glycerol	94581-16-5	N/A
Rosin	91081-22-0	N/A
Rosin, fumarated, polymer with pentaerythritol	65997-11-7	N/A
Rosin, maleated, polymer with glycerol	68038-41-5	N/A
Rosin, phenol modified	92202-16-9 68083-03-4 68082-96-2	N/A
Silica	112945-52-5 112926-00-8	N/A
Sodium acetate	6131-90-4	E262
Sodium alginate	9005-38-3	E401
Sodium citrate	6132-04-3	E331
Sodium ligninsulfonate	8061-51-6	N/A
Sodium phosphate dibasic	10028-24-7	E339

Ingredient	CAS	E-numbers
Sodium sulfate	7757-82-6	N/A
Solvent red 124	12239-74-6	N/A
Soybean oil epoxide	8013-07-8	N/A
Starch and/or modified starches	65996-62-5 65996-63-6 9005-25-8	N/A
Stearic acid	57-11-4	N/A
Styrene - acrylate polymers	29497-08-3	N/A
Talc	14807-96-6	E553b
Titanium dioxide	13463-67-7	E171
Triacetin	102-76-1	E1518
Vinyl acetate	29861-55-0	N/A

Summary of the Toxicological Investigations on the Use of the Substance in Tobacco Products

Smoke Chemistry

Internal Studies	Level Tested ppm	Comment
Philip Morris	N/A	The effects of cigarette smoke produced by burning various base tipping papers constituents or inks on smoke chemistry have been evaluated.

Neutral Red Uptake Assay (NRU)

Internal Studies	Level Tested ppm	Comment
Philip Morris	N/A	The effects of cigarette smoke produced by burning various base tipping papers constituents or inks on cytotoxicity have been evaluated by the Neutral Red Uptake assay.

AMES Assay

Internal Studies	Level Tested ppm	Comment
Philip Morris	N/A	The effects of cigarette smoke produced by burning various base tipping papers constituents or inks on the mutagenic response have been evaluated by the <i>Salmonella</i> reverse mutation assay.

Mouse Lymphoma Assay (MLA)

Internal Studies	Level Tested ppm	Comment
Philip Morris	N/A	The effects of cigarette smoke produced by burning various base tipping papers constituents or inks on the mutagenic response have been evaluated by the Mouse Lymphoma Assay

In vivo Micronucleus

Internal Studies	Level Tested ppm	Comment
Philip Morris	N/A	The effects of cigarette smoke produced by burning various base tipping papers constituents or inks on the clastogenic/aneugenic response have been evaluated by the <i>in vivo</i> Micronucleus Assay

Inhalation studies

Internal Studies	Level Tested ppm	Comment
Philip Morris	N/A	The toxic effects of cigarette smoke produced by burning various base tipping papers constituents or inks have been evaluated in a 90-day inhalation study.