Patch testing, 3rd Edition: Update 2008 – 2015

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This is an addendum to and an update of *Patch Testing, 3rd Edition* (ISBN 978-90-813233-1-4). It contains information on *new allergens*, mostly chemicals described as contact allergens after publication of the book. The data presented here have mostly been published in *Contact Dermatitis* and *Dermatitis* (the two journals largely devoted to the subject of contact dermatitis) from March, 2008 through June, 2015. Also, *updated information* on a number of contact allergens already mentioned in *Patch Testing* is provided, notably new test concentrations and/or vehicles, modifications of advice previously given or other data such as newly reported photosensitivity or contact urticarial reactions. For the updated allergens, only the new information is given; it is recommended to assess the data in conjunction with the corresponding entries in Table 1 of *Patch Testing*, 3rd Edition.

Table 1 below provides an alphabetical listing of 275 individual chemicals or compounds and 66 synonyms for new and updated allergens. Of the 275 chemicals, 175 refer to NEW allergens, not included in the 2008 3rd Edition of *Patch Testing*. There are 94 updates of test concentrations and 14 reports of immediate contact reactions (contact urticaria). For the new contact allergens, CAS numbers have now been provided. Table 1 has 6 vertical columns, which contain the following information:

1: Name of the chemical
2: Synonyms/other names
3: Patch test concentrations & vehicles, and reference numbers
4: Merck Index number
5: Monographs in the Ingredient Database of the Personal Care Council
6: Comments

Column 1: Name of the chemical
This column lists all chemicals, both 'preferred names' and 'synonyms/other names' alphabetically. To help in finding the chemical name, prefixes such as numbers, *p-*, *m-*, *DL-*, *sym-*, tert-, alpha-, et cetera have been placed *after* the name itself. 'Preferred names' begin with a capital letter. 'Other names/synonyms' are not capitalized, unless they are trade names (recognizable by ®), abbreviations, official plant names or they begin with the name of a country, city, or a proper name. For cosmetic ingredients the INCI names (International Nomenclature Cosmetic Ingredients) are the preferred names (http://ec.europa.eu/consumers/cosmetics/cosing/)

Column 2: Synonyms/other names
This column may list one or more synonyms when the corresponding chemical in column 1 is a 'preferred name', or refers to the 'preferred name' when the corresponding chemical in Column 1 is a synonym ('See ….').

Column 3: Patch test concentrations & vehicles, and reference numbers
This column provides for each chemical ('preferred name') in Column 1 concentrations and vehicles for patch testing as recommended by the authors of articles referenced (references in brackets).
alc = alcohol; aqua = water; DMSO = dimethyl sulfoxide; pet = petrolatum

Column 4: Merck Index number
A number in this column means that the corresponding chemical in Column 1 is monographed in the Merck Index (14th Edition, 2006), the number corresponding to the chemical's Merck Index monograph number.

Column 5: Monographs in the Ingredient Database of the Personal Care Council

A '+' in this column means that the corresponding chemical in Column 1 is monographed in the Ingredient Database of the Personal Care Council (previously CTFA: Cosmetic, Toiletry and Fragrance Association), available at http://online.personalcarecouncil.org/jsp/Home.jsp (subscription required)

Column 6: Comments

This column contains a variety of information, all of which relates more or less directly to patch testing procedures (e.g. 'test concentration may be irritant', '20 controls were negative', 'no controls mentioned', 'risk of patch test sensitization', et cetera). When a chemical has caused photosensitivity, immediate contact reactions (contact urticaria) or patch test sensitization, relevant information and references are given under this heading.

In this column is it also indicated whether the entry is a new contact allergen, not previously shown in *Patch Testing*, 3rd Edition ('NEW') or whether it contains updated information on patch test data ('UPDATE PT'). CAS = CAS (Chemical Abstract Service) Registry Number.

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Table 1 Update 2008-2015: Chemicals

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Acetamidocaproic acid	acexamic acid; acetyl-aminocaproic acid 6-	5%-10% pet (59)	45	+	NEW. CAS 57-08-9. Ten controls were negative
acetyl-aminocaproic acid 6-	See Acetamidocaproic acid				
acexamic acid	See Acetamidocaproic acid				
Acetochlor		0.01% acetone (195)	61		NEW. CAS 34256-82-1. Ten controls were negative
acid blue 158	See Chromate(1-), (3-hydroxy-4-(2-(1-hydroxy-8-sulfo-2-naphthalenyl)diazenyl)-1-naphthalenesulfona-to(4-))-, sodium (1:1)				
Alclofenac		2% pet (60)			Photosensitivity: ref 60
alkyl rhamnoside-C5	See Pentyl 6-deoxy-L-monopyranoside				
allyloxy-1,2-benziso-thiazole 1,1-dioxide 3-	See Probenazole				
Aloe vera extract		5% pet (165)	305	+	UPDATE PT. There are callus and leaf extracts. Test concentration is non-irritating
Alprazolam		crushed tablet 10% and 30% pet (161)	312		NEW. CAS 28981-97-7. 21 controls were negative. Pure chemical was not tested
alum, potassium, dodecahydrate	See Potassium alum dodecahydrate				
aluminium ……	See Aluminum ……..				
Aluminum acetotartra-te		25% aqua (79)	325		UPDATE PT. Of twenty controls, one had a positive reaction
Aluminum chloride hexahydrate		10% pet (47,79)	337		UPDATE PT. The commonly used 2% preparation may result in false-negative reactions (47); 20 con-trols were negative (79)
Aluminum hydroxide		6.5% pet (79)	342	+	NEW. CAS 21645-51-2. Twenty controls were negative

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Aluminum lactate		7.7% pet (79)	348	+	NEW. CAS 18917-91-4. Twenty controls were negative to 24% pet
Aluminum phosphate		1.0% - 3.2% - 10.0% pet (79)	358		NEW. CAS 7784-30-7. Twenty controls were negative to 10% pet
aluminum potassium disulfate dodecahydrate	See Potassium alum dodecahydrate				
Ambroxol hydrochloride		Commercial drug 10% pet (34)	386		*Photo*contact allergy
Amino-*m*-cresol 4-		1% pet (181)		+	NEW. CAS 2835-99-6. Adequate controls performed
amino-*o*-cresol 5-	See Amino-2-hydroxytoluene 4-				
amino-2-hydroxy-1-methylbenzene 4-	See Amino-2-hydroxytoluene 4-				
Amino-3-hydroxypyridine 2-		1% pet (181)		+	NEW. CAS 16867-03-1. Adequate controls performed
Amino-2-hydroxytoluene 4-	amino-o-cresol 5-; amino-2-hydroxy-1-methylbenzene 4-	1% pet (35)		+	NEW. CAS 2835-95-2
Aminolevulinic acid		20% pet (127)	446		UPDATE PT. This concentration and lower concentrations may be irritant
Amylcinnamyl alcohol		5% pet (91)		+	UPDATE PT
Anacardium occidentale	cashew nut shell oil	0.03%-0.3%-3% alc (54)	6781	+	UPDATE PT
Anise alcohol	anisyl alcohol	10% pet (91)	665	+	UPDATE PT
Apomorphine hydrochloride		5%-10% pet (5)	746		UPDATE PT. Twenty controls were negative to 10% pet
Argania spinosa kernel oil	argan oil	Pure and 10% pet (197)			NEW. CAS 223747-87-3. Ten controls were negative
argan oil	See *Argania spinosa* kernel oil				
Aripiprazole		crushed tablet 30% pet (161)	785		NEW. CAS 129722-12-9. No controls performed. Pure chemical was not tested
Ascaridole		2% pet (101); 1% and 2% pet (178); 2% pet (193)			UPDATE PT. Increase in irritancy from 1% to 5%; 2% was suggested for patch testing (178,193)

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Ascorbyl tetraisopal-mitate		20% liquid paraffin (116); 0.05% in ? (water or liquid paraffin) (154)		+	NEW. CAS 183476-82-6. Twenty controls were negative (116).
asymmetrical hexamethylene 1,6-diisocyanate trimer	See Hexamethylene 1,6 diisocyanate trimer, asymmetrical				
Azithromycine		20% pet (65)			UPDATE PT. Ten controls were negative. Lower concentrations may result in false-negative reactions (65)
Azo*bis*(2-amidino-propane) dihydro-chloride 2,2'-	2,2'-azo*bis*(2-methyl-propionamidine) dihy-drochloride	1% and 5% pet (110)			UPDATE PT. Twenty controls were negative to 5% pet.
azo*bis*(2-methyl-propionamidine) dihy-drochloride 2,2'-	See 2,2'-azo*bis*(2-ami-dinopropane) dihydro-chloride				
Baclofen		crushed tablet 30% pet (161)	937		NEW. CAS 1134-47-0. No controls performed. Pure chemical was not tested
Basic brown 17				+	Contact urticaria: ref. 152
Beclomethasone di-propionate		0.1% alc (108)			UPDATE PT
Benzanthrone		1% and 0.1% in ethanol /acetone 50:50 vol/vol (153)	1063		UPDATE PT. Uncertain how many controls have been tested. Phototoxicity and possibly photocontact allergy have also been reported (153)
Benzothiazolone 2(3*H*)-		0.1% and 1% pet (137)			NEW. CAS 934-34-9
benzoic acid, 2-(dioctа-decylamino)carbonyl]-	See Distearyl phthalic acid amide				
Benzyl alcohol		10% pet (91)	1124	+	UPDATE PT
Benzyl benzoate		10% pet (91)	1127	+	UPDATE PT
Benzyl cinnamate		10% pet (91)	1130	+	UPDATE PT
Benzyl salicylate		10% pet (91)	1144	+	UPDATE PT
Beryllium chloride			1184		UPDATE PT. The previously suggested test concentration of 1% pet may result in patch test sensitization (48)

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Beryllium sulfate tetrahydrate		1% aqua (123,125)	1175		NEW. CAS 7787-56-6. No positive reactions in 74 other patients tested (123)
Betamethasone		0.1% alc (108)	1180		NEW. CAS 378-44-9
Betamethasone dipropionate		0.1% alc (108)	1180		UPDATE PT
Betamethasone sodium phosphate		0.1% alc (108)	1180		NEW. CAS 151-73-5
Betamethasone 17-valerate		0.1% alc (108)	1180		UPDATE PT
Betula alba bark extract		10% in jojoba oil (185)		+	NEW. CAS 84012-15-7. No controls performed
Biosaccharide gum-4		Glycofilm® 1.5 P, an aqueous solution containing biosaccharide gum-4 (% unknown) and phenoxyethanol 1.5% (177)		+	NEW. CAS 905593-86-4. Ten controls were negative
bis-diglyceryl polyacyl-adipate-2	See Diglyceryl polyacyl-adipate-2 *bis*-				
Bis(2-hydroxyethyl)-*p*-phenylenediamine *N,N'*-		1% pet (181)		+	NEW. CAS 84041-77-0. Adequate controls performed.
bisoctrizole	See Methylene *bis*-benzotriazolyl tetramethylbutylphenol				
Bisoprolol		crushed tablet 10% pet (161)	1295		NEW. CAS 66722-44-9. Six controls were negative. Pure chemical was not tested
Bromazepam		crushed tablet 30% pet (161)	1385		NEW. CAS 1812-30-2. Five controls were negative. Pure chemical was not tested
Bromo-3-chloro-5,5-dimethyl hydantoin 1-		1% pet (86)			UPDATE PT. Of 40 controls, 39 were negative
Bromomethyl)benzoic acid) 4-(		0.01%-0.1%-1% pet (58); 0.1 wt/wt pet (179)			NEW. CAS 6332-88-8. Ten controls were negative to 1% pet (58) and 0.1% pet (179)
Bromosuccinimide *N*-		0.1% wt/wt pet (179)			NEW. CAS 128-08-5. Ten controls were negative
Buprenorphine		0.001%-0.002% pet (57); transdermal delivery system + system without active drug; commercial injection preparation 0.3	1497		NEW. CAS 52485-79-7. Contact allergy sometimes diagnosed *per exclusionem* (41); no controls performed (94); no controls

		mg/ml in water (41,57); 0.3 mg/ml in pet (94); 10% aqua (182)			performed (182)
NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
butenedioic acid, dimethyl ester 2-	See Dimethyl maleate				
Butyl cyanoacrylate	enbucrilate	10% pet (122)	1565		NEW. CAS 6606-65-1. No controls mentioned
butyl-α-methylhydro-cinnamic aldehyde *p-tert*-	See Butylphenyl methyl-propional				
Butylphenyl methyl-propional	*p-tert*-butyl-α-methyl-hydrocinnamic alde-hyde; Lilial®	10% pet (91)		+	UPDATE PT
Calocephalin		0.1% alc (173)			NEW. No controls performed
Candelilla cera	candelilla wax	10% paraffin (180)	1738	+	UPDATE PT. CAS 8006-44-8. No controls performed
candelilla wax	See Candelilla cera				
Capryldiethanolamine	octyldiethanolamine; octylimino-bis-ethanol	2% pet (140)			NEW. CAS 15520-05-5. Twenty controls were negative
Capryloyl salicylic acid		1% alc (198)		+	NEW. CAS 78418-01-6. No controls performed
Capsaicin		0.5% pet (138)	1768	+	NEW. CAS 404-86-4. Thirty controls were negative
Carboxybenzyl(tri-phenyl)phosphonium bromide 4-		0.1% wt/wt pet (189)			NEW. CAS 17814-85-6. Ten controls were negative
Carboxymethylcellulo-se sodium		10% vehicle? (56)	1829	+	UPDATE PT. Ten controls were negative
Carmine		2.5% pet (124)	1843	+	UPDATE PT. The test concentration is non-irritant
Carprofen		1% pet (2)			UPDATE PT. Photo-sensitivity: refs 2 and 67. Photopatch test sensitization at 2% and 5% pet: ref 67
Carvedilol		10% pet (26)	1873		NEW. CAS 72956-09-3. Ten controls were negative
Ceteareth-2		20% pet (187)		+	NEW. CAS 68439-49-6 (generic). No controls performed
Ceteareth-3		20% pet (187)		+	NEW. CAS 68439-49-6 (generic). No controls performed

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Cetearyl glucoside		10% buffered aqueous solution (150); 5% pet (164)		+	NEW. CAS 246159-33-1. Weak irritant responses may occur with this chemical and other glucosides (150). 109 controls were negative to 5% pet (164)
Cetirizine		Tablet 10% pet and 10% aqua (99)	2022		UPDATE PT. Fixed drug eruption with positive patch test. No controls mentioned
(-)-cetirizine	See Levocetirizine				
Chlorendic anhydride					NEW. CAS 115-27-5. Contact urticaria: ref 30
Chloroacetamide			2110	+	Patch test sensitization to 0.2%: ref 37
Chloro-1-hydroxy-ethyl)-phenol (*R*)-3-(2-		1%-5%-10% pet (71)			NEW. No controls performed
Chloropyridazin-3-amine 6-		0.5% alc (31)			NEW. CAS 5469-69-2. No controls performed
Chlororesorcinol 4-		1% pet (181)		+	UPDATE PT. CAS 95-88-5. Adequate controls performed
Chromate(1-), (3-hydroxy-4-(2-(1-hydroxy-8-sulfo-2-naphthalenyl)diazenyl)-1-naphthalenesulfona-to(4-))-, sodium (1:1)	C.I. acid blue 158 (not a synonym, name used by the authors)	1% pet (49)			NEW. CAS 70942-15-3. Neither the structural formula, nor the CAS number, nor the molecular formula shown in the article correspond to the chemical known as Acid blue 158 (CAS 6370-08-7)
C.I. acid blue 158	See Chromate(1-), (3-hydroxy-4-(2-(1-hydroxy-8-sulfo-2-naphthalenyl)diazenyl)-1-naphthalenesulfona-to(4-))-, sodium (1:1)				
Clindamycin		Pure and powder from capsules 10% pet (100)	2356		UPDATE PT. Positive patch tests in patients with drug eruptions. Over 50 controls were negative
Clobetasol propionate		0.1% alc (108)	2363		UPDATE PT
Clobetasone butyrate		0.1% alc (108)	2364		UPDATE PT

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Cloprednol		0.1% alc (108)	2398		UPDATE PT
Clotiazepam		crushed tablet 30% pet (161)	2416		NEW. CAS 33671-46-4. Three controls were negative. Pure chemical was not tested
Cobalt 2-ethylhexano-ate	hexanoic acid, 2-ethyl-, cobalt salt (1:?); ethylhexanoic acid, cobalt salt 2-	1.3% pet (3)			NEW. CAS 13586-82-8. Twenty-four controls were negative.
Cocamidopropyl di-methylamine		0.15% acid buffer (88)		+	UPDATE PT. CAS 68140-01-2. Fifteen per cent irritant reactions in controls
Codfish elastin					Contact urticaria by presence in cosmetic cream (80)
C30-38 Olefin/isopro-pyl maleate/MA copolymer		5% and 10% pet (75,76)		+	NEW. CAS 75535-27-2. 30 controls were negative to 10% pet (76)
Corticosteroids		0.1% alc (109)			
Cortisone acetate		0.5% alc/DMSO (108)	2539		UPDATE PT
Cyano-1-methylethyl)-dodecylethylsulpho-nium tetrafluorobora-te(1-) (2-		10% and 5% pet (4)			NEW. CAS 72140-65-9. Two controls were negative
Cyclobenzaprine		0.2%, 1% and 2% pet (199)	2713		NEW. CAS 6202-23-9. No controls performed, but report reliable
Decyl glucoside		5% pet (164)		+	UPDATE PT. CAS 58846-77-8. 536 controls were negative
Desloratadine		1% pet (64)	2922		NEW. CAS 100643-71-8. Desloratadine 10% pet causes irritant reactions
Desmodur® N3200	See hexamethylene 1,6-diisocyanate biuret				
Desmodur® N3300	See hexamethylene 1,6-diisocyanate isocyanu-rate				
Desmodur® N3390BA	See hexamethylene 1,6-diisocyanate isocyanu-rate				
Desmodur® N3900	See Hexamethylene 1,6-diisocyanate trimer, asymmetrical				
Desoximetasone	desoxymethasone	0.1% alc (108)	2930		UPDATE PT

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Dexamethasone		0.1% alc (108)	2943		UPDATE PT
Dexamethasone acetate		0.1% alc (108)	2943		UPDATE PT
Dexamethasone sodium phosphate		0.1% alc (108)	2943		UPDATE PT
Dexlansoprazole		Crushed tablet, 1% and 10% pet (143)			NEW. CAS 138530-94-6. Contact allergy from cross-reactivity to omeprazole likely but not proven, as the pure chemical was not tested
Diacetyl-*p*-phenylenediamine *N,N'*-		1% pet (55)			NEW. CAS 140-50-1. Probably cross-reaction to *p*-Phenylenediamine
Diaminophenoxyethanol hydrochloride 2,4-		1% pet (181)		+	NEW. CAS 66422-95-5. Multiple controls performed (181). Immediate contact reaction: ref. 85.
Diazepam		crushed tablet 30% pet (161)	2994		UPDATE PT. CAS 439-14-5. Sixteen controls were negative. Pure chemical was not tested
Dibromoimidazo[1,2-a]pyrazine 6,8-		1%, 0.1% and 0.01% alc (31)			NEW. CAS 63744-22-9. Seven controls were negative to the lowest concentration
Dichlorisone acetate		0.1% alc (108)	3048		UPDATE PT
Diclofenac diethylamine		10% pet (126)	3081		NEW. CAS 78213-16-8. Ten controls were negative
Diclofenac sodium		10% pet (126)	3081		UPDATE PT. Ten controls were negative
didecyldimethyl ammonium chloride	See Didecyldimonium chloride				
Didecyldimonium chloride	didecyldimethylammonium chloride	0.1% and 0.01% pet (189)	3099	+	NEW. CAS 7173-51-5. Contact urticaria: ref 51. The 0.1% concentration is irritant, but may be necessary to detect sensitization (189)
Didecylmethylpoly(oxyethyl) ammonium propionate		5% pet (156)			NEW. CAS 94667-33-1. Ten controls were negative (156). Contact urticaria: ref 29
Diethyldithiocarbamylbenzothiazole sulfide		1% pet (159)			NEW. CAS 95-30-7. More than 10 controls were negative

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Diethyleneglycol diglycidyl ether		0.5% pet (190)			NEW. CAS 4206-61-5. Adequate controls performed
Diethyl fumarate		0.12% w/w pet (11)			NEW. CAS 623-91-6
Diethyl maleate		0.12% w/w pet (11)			NEW. CAS 141-05-9
Diflorasone diacetate		0.1% alc (108)	3140		UPDATE PT
Diflucortolone valerate		0.1% alc (108)	3143		UPDATE PT
Diglyceryl polyacyladipate-2 *bis*-		16% pet (111)		+	NEW. CAS 82249-33-0. Ten controls were negative. Test also its ingredient 12-hydroxystearic acid (112)
Dihydroxyacetone		10% alc (113)	3182	+	UPDATE PT. Alcohol may be preferable over water as test vehicle
Diisodecyl phthalate		2% pet (89)			NEW. CAS 26761-40-0. Eleven controls were negative
Diisostearyl malate		40% pet (31)		+	NEW. CAS 67763-18-2. Three controls were negative
Dimethindene maleate		Commercial preparation with dimethindene maleate 'as is' and 30% pet (118)			NEW. CAS 3614-69-5. Dimethindene maleate itself was also tested, no test conc. or vehicle mentioned. Five controls were negative
Dimethyl fumarate		0.01% w/w pet (11); 0.1% pet (19,130,132)			NEW. CAS 624-49-7. 0.1% sometimes results in too strong reactions, but identifies additional cases of sensitization (19). Contact urticaria: refs. 19 and 196. TEST ADVICE: 0.1% pet (130,132)
Dimethyl maleate	butenedioic acid, dimethyl ester 2-	0.1% w/w pet (11)		+	NEW. CAS 624-48-6
Dimethyl sulfate		0.1% pet (33)	3256		NEW. CAS 77-78-1. Two controls were negative
Dimethylthiocarbamylbenzothiazole sulfide		1% pet (159)			NEW. CAS 3432-25-5. More than 10 controls were negative

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Dipentaerythritol fatty acid ester		1% pet (52)			NEW. CAS 208126-52-7. Five controls were negative
Diphenyl isodecyl phosphate	isodecyl diphenyl phosphate	0.05%-2.5% pet (69)			NEW. CAS 29761-21-5. Contact allergy not proven
Diphenylmethane diisocyanate 4,4'-		0.5% pet (93)			UPDATE PT. Test advice from the ESCD based on active sensitization in a dermal uptake study
Diphenylphenol		2% pet (62)			Photosensitivity: ref 62
dipropylbiphenyl-2,2'-diol 5,5'-	See Tetrahydromagnolol				
Dipyridamole		Tablet 30% pet (82)			NEW. CAS 58-32-2. Drug eruption with positive patch test. Twenty controls were negative
Disodium tetrachloropalladate	sodium tetrachloropalladate	3% pet (81,133)			NEW. CAS 13820-53-6. Of 26 controls, two had positive and three had ?+ tests (81)
distearylphthalamic acid	See Distearyl phthalic acid amide				
Distearyl phthalic acid amide	benzoic acid, 2-[(dioctadecylamino)carbonyl]-; distearylphthalamic acid	0.1% and 1% pet (147)		+	NEW. CAS 87787-81-3
Ditrimethylolpropane triethylhexanoate		Pure (114)		+	NEW. CAS 533926-00-0. Four controls were negative
Donepezil			3419		Contact urticaria: ref 24
Drometrizole trisiloxane		5% pet (50)		+	Photocontact allergy: ref 50
Enalapril		crushed tablet 10% pet (161)	3567		NEW. CAS 75847-73-3. Three controls were negative. Pure chemical was not tested
enbucrilate	See Butyl cyanoacrylate				
Esomeprazole		Crushed tablet, 1% and 10% pet (143); 30% pet (161)			NEW. CAS 119141-88-7. Contact allergy from cross-reactivity to omeprazole likely but not proven, as the pure chemical was not tested (143)
ethoxylated ethyl-4-aminobenzoate	See PEG-25 PABA				

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Ethyl-L-ascorbic acid 3-*O*-		0.05-5% pet (155)		+	NEW. CAS 86404-0408. Three controls were negative; patient was tested with dilution series and reacted from 0.05% to 5% pet
Ethyl 6-chloro-imidazo [1,2-b]pyridazine-2-carboxylate		0.5% alc (31)			NEW. CAS 64067-99-8. No controls performed
ethylhexanoic acid, cobalt salt 2-	See Cobalt 2-ethyl-hexanoate				
Etoricoxib		10% pet (95)	3887		NEW. CAS 202409-33-4. No controls performed. Fixed drug eruption with positive patch test
Evernia furfuracea	tree moss extract	1% pet (91)		+	UPDATE PT
Fludrocortisone acetate		0.1% alc (108)	4130		UPDATE PT
Flumethasone pivalate		0.1% alc (108)	4138		UPDATE PT
Flumoxonide		0.1% alc (23)			NEW. CAS 60135-22-0
Flunisolide		0.1% alc (23)	4145		NEW. CAS 3385-03-3
Fluocortolone		0.1% alc (108)	4153		UPDATE PT
Fluocortolone caproate		0.1% alc (108)	4153		UPDATE PT
Fluocortolone pivalate		0.1% alc (108)	4153		UPDATE PT
Fluprednidene acetate		0.1% alc (108)	4191		UPDATE PT
Fluprednisolone acetate		0.1% alc (108)	4192		UPDATE PT
Fluticasone propionate		0.1% alc (108)	4211		UPDATE PT
Formaldehyde		2.0% wt/vol aqua (70)	4235	+	UPDATE PT
Fragrance mix I					Patch test sensitization: ref 68
Fructooligosaccharides		10% aqua (96)		+	NEW. CAS 308066-66-2. Thirty controls were negative

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Geraniol, air oxidized		2% pet (84); 6% pet (145)			NEW. The test material is non-irritant and detects more cases of allergy than pure geraniol (84); the air oxidized 6% test material was found to contain 48% geraniol, 3.9% geranial, 1.0% neral and 3.2% geraniol-7-hydroperoxide (145)
Glucan oligosaccharide		1% and 5% aqua (28)			NEW. CAS 9074-78-6. Seven controls were negative
Glyceryl caprylate		1-5% pet (171)		+	NEW. CAS 26402-26-6. Three controls were negative to 5% pet
glycol salicylate	See Hydroxyethyl salicylate				
Halometasone		0.1% alc (108)	4597		UPDATE PT
HC Blue no. 7	methoxy-2-methylamino-3-aminopyridine 6-; methoxy-*N*2-methyl-pyridine-2,3-diamine dihydrochloride 6-	1% pet (32)		+	NEW. CAS 83732-72-3. Of 54 controls, 49 were negative and 5 had an irritant reaction
Helichrysum italicum, flowering tops, lipophilic fraction	Helydol ®	3% pet (183)		+	NEW. CAS 90045-56-0. Ten controls were negative
Helydol ®	See *Helichrysum italicum*, flowering tops, lipophilic fraction				
herniarin	See Methoxycoumarin 7-				
Hesperidin methyl chalcone		1% and 3% aqua (191)		+	NEW. CAS 024292-52-2. Thirteen controls were negative to 3% aqua
Hexamethylene 1,6-diisocyanate biuret	Desmodur® N3200	Desmodur® N3200 5% pet (1)			NEW. CAS 4035-89-6. Five controls were negative
Hexamethylene 1,6-diisocyanate isocyanurate	Desmodur® N3390BA Desmodur® N3300	Desmodur® product 5% pet (1)			NEW. CAS 3779-63-3. Nine controls were negative to 1% and 2%
Hexamethylene 1,6-diisocyanate trimer, asymmetrical	Desmodur® N3900	Desmodur® N3900 5% pet (1)			NEW. Twenty controls were negative
hexanoic acid, 2-ethyl-, cobalt salt (1:?)	See Cobalt 2-ethylhexanoate				
Hexyldecanol		10% pet (46)		+	NEW. CAS 2425-77-6. Three controls were negative

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Hydrocortisone		0.5% alc/DMSO (108)	4787		UPDATE PT
Hydrocortisone aceponate		1% alc (108)			UPDATE PT
Hydrocortisone acetate		0.1% alc (108)	4787		UPDATE PT
Hydrocortisone 17-butyrate		0.1% alc (108)	4787		UPDATE PT
Hydrocortisone 21-butyrate		0.1% alc (108)			UPDATE PT
Hydrocortisone hemisuccinate	hydrocortisone 21-sodium succinate	0.2% alc (108)	4787		UPDATE PT
Hydrolyzed wheat protein				+	Contact urticaria: refs. 107 and 184. CAS 94350-06-8; 222400-28-4; 70084-87-6
(2-hydroxyethoxy)-phenyl-(2-hydroxy-2-methylpropyl)ketone 4- (?)	See Hydroxy-1-(4-(2-hydroxyethoxy)-phenyl)-2-methyl-1-propanone 2-				
Hydroxyethyl-4,5-diaminopyrazole sulfate 1-		1% pet (181)		+	NEW. CAS 155601-30-2. Adequate controls performed
Hydroxyethyl-*p*-phenylenediamine sulfate		1%-2% pet (104)		+	NEW. CAS 93841-25-9. Adequate controls performed
Hydroxyethyl salicylate	glycol salicylate	5% pet (128)	4499		UPDATE PT. Fifteen controls were negative
Hydroxy-1-(4-(2-hydroxyethoxy)phenyl)-2-methyl-1-propanone 2-	Darocur ®2959; (2-hydroxyethoxy)-phenyl-(2-hydroxy2-methyl-propyl)ketone 4- (?)	1% pet (10)			NEW. CAS 106797-53-9. Twenty controls were negative. The name used by the authors (second synonym) could not be found in chemical databases
Iodoacetonitrile		0.001% pet (119)			NEW. CAS 624-75-9. Five controls were negative
Iohexol		Omnitrast® undiluted (105)	5052		NEW. CAS 66108-95-0. Fixed drug eruption to ioversol with positive patch tests to ioversol and iohexol. No controls performed
Iomeprol		1%-5% aqua (45)	5054		NEW. CAS 78649-41-9. Five controls were negative to iomeprol 5% aqua
Iopamidol		Lopamiro 300® undiluted (105)	5057		NEW. CAS 60166-93-0. Fixed drug eruption to

					ioversol with positive patch tests to ioversol and iopamidol. No controls performed
NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Ioversol		Optiray 300® undiluted (105)	5066		NEW. CAS 87771-40-2. Fixed drug eruption with positive patch test. No controls performed
isodecyl diphenyl phosphate	See Diphenyl isodecyl phosphate				
Isoflupredone acetate		0.1% alc (108)	5174		UPDATE PT
Isoflurane		ROAT with liquid isoflurane (136)	5175		NEW. Because of the volatility, patch tests may be false-negative (136)
Isomethylionone α-	γ-methylionone	10% pet (91)		+	UPDATE PT
Isononyl isononanoate		5% alc (43)		+	NEW. CAS 59219-71-5. Twenty controls were negative
isopropenyl-1-methyl-2-cyclohexene-1-hydroperoxide (*4R*)-4-	See Limonene-1-hydro-peroxide				
isopropenyl-2-methyl-2-cyclohexene-1-hydroperoxide (*5R*)-5-	See Limonene-2-hydro-peroxide				
Levisticum officinale oil	lovage oil	5% alc (175)		+	UPDATE PT. CAS 8016-31-7; 84837-06-9. Four controls were negative
Levocetirizine	(-)-Cetirizine	Tablet 10% and 20% pet (99)	2022		NEW. CAS 130018-77-8. Fixed drug eruption with positive patch test. No controls mentioned
Lilial ®	See Butylphenyl methyl-propional				
Limonene *d*-	(*R*)-limonene	10% pet (91)	5493	+	PT UPDATE
Limonene-1-hydro-peroxide	isopropenyl-1-methyl-2-cyclohexene-1-hydro-peroxide (*4R*)-4-	0.75%-1% pet (40); 0.5% pet (158)			NEW. Present in oxidi-zed limonene. Unstable
Limonene-2-hydro-peroxide	isopropenyl-2-methyl-2-cyclohexene-1-hydro-peroxide (*5R*)-5-	0.75%-1% pet (40); 0.5% pet (158)			NEW. Present in oxidized limonene. Unstable
Limonene, oxidized		3% pet (40,144)			NEW
Linalool		10% pet (91)	5495	+	UPDATE PT
Linalool, oxidized		Oxidized linalool 6% pet (14,163)			NEW. Positive ROATs: ref. 163

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Linalyl acetate, oxidized		Oxidized linalyl acetate 6% pet (134)			NEW. the preparation contained 1% linalyl acetate and 2% hydroperoixides
Lisinopril		Crushed tablet 10% pet (161)	5516		NEW. CAS 76547-98-3. Three controls were negative. Pure chemical was not tested
Lorazepam		Crushed tablet, 30% pet (8,161)	5579		NEW. CAS 846-49-1. Twenty controls were negative. Pure chemical not tested
lovage oil	See *Levisticum officinale* oil				
macrogol 6000	See PEG-150				
Magnolia officinalis bark extract		0.5% pet (192)		+	NEW. Ten controls were negative
margosa oil	See *Melia azadirachta* seed oil				
Mazipredone		0.1% alc (23,108)	5763		NEW. CAS 13085-08-0
Medrysone		0.1% alc (108)	5794		UPDATE PT
Melia azadirachta seed oil	neem oil; margosa oil	Pure (63,78)	6437	+	NEW. CAS 8002-65-1. No controls performed (63); 5 controls were negative (78)
Menthoxypropanediol		5% pet (170)		+	NEW. CAS 87061-04-9. Five controls were negative
Meropenem		Crushed tablet 500 mg, 15% and 30% pet (172)	5900		UPDATE PT. CAS 96036-03-2. Ten controls were negative. Positive patch test reaction in a patient with a drug eruption (DRESS or TEN)
Methoxsalen	methoxypsoralen 8-		5988		Photosensitivity: ref 7
Methoxycoumarin 7-	herniarin	1% pet (6)			NEW. CAS 531-59-9
methoxy-2-methylamino-3-aminopyridine 6-	See HC Blue no. 7				
methoxy-*N*2-methyl-pyridine-2,3-diamine dihydrochloride 6-	See HC Blue no. 7				
methoxypsoralen 8-	See Methoxsalen				

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Methylaminophenol *p*-		1% pet (181)		+	NEW. CAS 150-75-4. Adequate controls performed
Methyl-*N,N*-diethyl-dithiocarbamate		1% pet (159)			NEW. CAS 686-07-7. No controls mentioned
Methyl-*N,N*-dimethyl-dithiocarbamate		1% pet (159)			NEW. CAS 3735-92-0. No controls mentioned
Methylene *bis*-benzo-triazolyl tetramethyl-butylphenol	bisoctrizole	10% pet (129)	1294	+	UPDATE PT. Possibly photosensitivity or photoaggravation
methyl heptine carbo-nate	See Methyl 2-octynoate				
Methyl hydroxystea-rate	methyl 12-hydroxy-stearate	1% pet (77)		+	NEW. CAS 141-23-1. Seven controls were negative
γ-methylionone	See Isomethylionone α-				
Methylmercapto)-benzothiazole 2-		1% pet (159)			NEW. CAS 615-22-5. No controls mentioned
Methyl 2-octynoate	methyl heptine carbo-nate	<1% pet (12); 0.2% (91)		+	UPDATE PT. The 1% test preparation (TROLAB) may induce active sensitization
Methylphenidate		1% pet, 5% pet, 10% pet (103)	6110		NEW. CAS 113-45-1. In a previous study, 20% pet was established to be non-irritant
Methylprednisolone aceponate		0.1% alc (108)	6111		UPDATE PT
Methylprednisolone acetate		0.1% alc (108)	6111		UPDATE PT
Methylprednisolone hemisuccinate		0.1% alc (108)			NEW. CAS 2921-57-5.
Methyl-2-pyrrolidone *N*- + poly **DL**-lactic-co-glycolic acid		Undiluted (18)			NEW. CAS 872-50-4 and CAS 34346-01-5. Five controls were negative. Drug eruption with positive patch test
Methylresorcinol 2-		1% pet (181)		+	NEW. CAS 608-25-3. Adequate controls performed
Metoprolol		crushed tablet 10% pet (161)	6151		UPDATE PT. CAS 37350-58-6. Seven controls were negative. Pure chemical was not tested
Misoprostol		1% pet (21)			NEW. CAS 59122-46-2. Drug eruption with positive patch test

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Mometasone furoate		0.1% alc (108)	6241		UPDATE PT
Mono(2-ethylhexyl)-maleate		1% pet (38)			NEW. CAS 7423-42-9. Twenty-one controls were negative
Naloxone		400 µg/ml (72); commercial drug solution 0.04 mg/ml (172)	6362		NEW. CAS 465-65-6. No controls performed (72); four controls were negative (172); positive patch test in patient with drug eruption (172)
Naphazoline hydrochloride		1% pet (27)	6368		NEW. CAS 835-31-4. Twenty controls were negative
neem oil	See *Melia azadirachta* seed oil				
Niflumic acid	niflumic acid	5% pet (60)	6531		NEW. CAS 4394-00-7
ocrylate	See Octyl cyanoacrylate				
Octadecenylpropane-1,3-diamine (*Z*)-*N*-9-	oleyl-1,3-propylene diamine *N*-	0.5% pet (36)			NEW. CAS 7173-62-8. No controls performed
Octyl cyanoacrylate	ocrylate	10% pet (122)	6766		NEW. CAS 6701-17-3. No controls mentioned
octyldiethanolamine	See Capryldiethanolamine				
Octyldodecyl xyloside		6% pet (98)		+	NEW. CAS 423772-95-6. Twenty controls were negative
octylimino-bis-ethanol	See Capryldiethanolamine				
Olanzapine		1% pet (13); 1% and 5% pet (121)	6822		NEW. CAS 132539-06-1. Ten controls were negative (13,121)
oleyl-1,3-propylene diamine *N*-	See Octadecenylpropane-1,3-diamine (*Z*)-*N*-9-				
Oxybutinin		crushed tablet 30% pet (161)	6955		NEW. CAS 9633-20-5. No controls performed. Pure chemical was not tested
Oxycodone		crushed 10,40,80 mg tablets; 10 mg/ml liquid (72); commercial drug solution 10 mg/ml, 1% and 10% in water (172)	6959		NEW. CAS 76-42-6. No controls performed (72); three controls were negative (172); positive patch test reaction in patient with drug eruption (172)
Pantoprazole		5% and 10% pet (120)	7014		NEW. CAS 102625-70-7. Ten controls were neg.

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Parsol® SLX	See Polysilicone-15				
PEG-150	PEG-6000; macrogol 6000			+	CAS 25322-68-3 (generic). Contact anaphylaxis: ref. 176. Possibly also immediate type reaction to polyethylene-polypro-pyleneglycol (CAS 9003-11-6, generic)
PEG-6000	See PEG-150				
PEG-7 oleate	polyethylene glycol-7 monooleate	pure (139)		+	NEW. CAS 9004-96-0. Eight controls were negative
PEG-25 PABA	polyethylene glycol (25) PABA; ethoxylated ethyl-4-aminobenzoate	no test concentrations mentioned (50); suggested patch test concentration: 10% pet		+	NEW. CAS 116242-27-4. Photocontact allergy: ref 50
Pelargonyl vanillyla-mide					Contact urticaria: ref 66
Pentyl 6-deoxy-L-monopyranoside	pentyl rhamnoside; alkyl rhamnoside-C5	1% aqua (17)			NEW. CAS 494844-0. Five controls were negative
pentyl rhamnoside	See Pentyl 6-deoxy-L-monopyranoside				
Perindopril		crushed tablet 10% pet (161)	7170		NEW. CAS 82834-16-0. Three controls were negative. Pure chemical was not tested
Petrolatum			7185	+	Photosensitivity: ref 62
Phenylethyl resorcinol		0.1% and 1% pet (174)		+	NEW. CAS 85-27-8. Two controls were negative
Phenytoin		5% and 10% pet (15)	7322		NEW. CAS 57-41-0. Fifty controls were negative. Positive patch test in patients with drug hypersensitivity syndrome (DRESS)
Phytantriol	tetramethyl-1,2,3-hexa-decanetriol 3,7,11,15-	0.02%-0.2%-0.5% pet (44)	7386	+	NEW. CAS 74563-64-7
Phytonadione epoxide	vitamin K1 oxide; vitamin K1 epoxide	1% pet (9)	7380	+	NEW. CAS 25486-55-9
polyaminopropyl biguanide	See Polyhexamethylene biguanide				
Polycrylene®	See Polyester-8				

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Polyester-8	Polycrylene®	3% pet (83)		+	NEW. CAS 862993-96-2. Twenty controls were negative to 1% and 3% pet
polyethylene glycol-7 monooleate	See PEG-7 oleate				
polyethylene glycol (25) PABA	See PEG-25 PABA				
Polyglyceryl-4 laurate		1% and 0.5% aqua (61)		+	NEW. CAS 75798-42-4. Seven controls were negative. Possibly cross-reaction to polyglyceryl-10 laurate
Polyglyceryl-6 laurate		1% and 0.5% aqua (61)		+	NEW. CAS 51033-38-6. Seven controls were negative. Possibly cross-reaction to polyglyceryl-10 laurate
Polyglyceryl-10 laurate		1% and 0.5% aqua (61)		+	NEW. CAS 34406-66-1. Seven controls were negative.
Polyhexamethylene biguanide	polyaminopropyl biguanide (INCI name)	20% aqua (160)	7560	+	UPDATE PT. CAS 32289-58-0; 28757-47-3; 133029-32-0. According to ref. 160, 2.5% and 5% patch test concentrations may be too low. Contact urticaria: ref. 146
Polyhexamethylene-guanidine hydrochloride		Dilution series, lowest concentration 0.0003% in ??? (87)			NEW. CAS 57028-96-3. Eight controls were negative to 0.0003%
poly **DL**-lactic-co-glycolic acid + methyl-2-pyrrolidone *N*-	See Methyl-2-pyrrolidone *N*- + poly **DL**-lactic-co-glycolic acid				
Polyolefin ester		0.1% and 1% pet (39)			NEW. Exact chemical identity unknown, possibly polyisobutene succinic ester. Twenty controls were negative
Polypropyleneglycol diglycidyl ether		0.5% pet (190)			NEW. CAS 9072-62-2. Adequate controls performed
Polysilicone-15	Parsol® SLX	10% pet (167)		+	NEW. CAS 207574-1. No controls performed
Potassium alum dodecahydrate	aluminum potassium disulfate dodecahydrate; alum, potassium, dodecahydrate	12.0% pet (79)	360	+	NEW. CAS 7784-24-9. Twenty controls were negative to 39% pet
Prednisolone		0.1% alc (108)	7721		UPDATE PT

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Prednisolone caproate		0.1% alc (108)			UPDATE PT
Prednisolone hemi-succinate		1% alc (108)			NEW. CAS 2920-86-7
Prednisolone 21-piva-late	prednisolone 21-trime-thylacetate	0.1% alc (108)			NEW. CAS 1107-99-9
Prednisolone *m*-sulfo-benzoate sodium	prednisolone methyl-sulfobenzoate; prednisolone sodium metasulfobenzoate	0.1% alc (108)	7721		NEW. CAS 630-67-1
Prednisone		0.1% alc (108)	7722		UPDATE PT
Probenazole	allyloxy-1,2-benziso-thiazole 1,1-dioxide 3-	0.01% pet (16)			NEW. CAS 27605-76-1. Twenty controls were negative
Propanetriol glycidyl ether		0.5% pet (190)			NEW. CAS 25038-04-4. Adequate controls performed
Propranolol		Crushed tablet 10% pet (161)	7840		UPDATE PT. CAS 525-66-6. Nine controls were negative. Pure chemical was not tested
Pseudoephedrine		Crushed tablet 60 mg, 30% pet (172)	7916		UPDATE PT. CAS 345-78-8. Eleven controls were negative; positive patch test reaction in patient with drug eruption
Quinine chlorhydrate		30% pet (22)			NEW. No controls performed
Rabeprazole		Crushed tablet, 1% and 10% pet (143); Crushed tablet 30 mg, 15% and 30% in petrolatum (172)			NEW. CAS 117976-89-3. Contact allergy from cross-reactivity to omeprazole likely but not proven, as the pure chemical was not tested. Five controls were negative. Positive patch test reaction in a patient with a drug eruption (DRESS or TEN) (172)
Ratapamulin		Ratapamulin ointment undiluted (25)			Active ingredient not tested; the ointment base was composed of white petrolatum only (?)
(*R*)-3-(2-chloro-1-hydroxyethyl)-phenol	See Chloro-1-hydroxy-ethyl)-phenol (*R*)-3-(2-				
Rhodium		1% pet (125)	8186		NEW. CAS 7440-16-6. Six irritant reactions in 567 patients

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Rifampicin		Crushed tablet in water and olive oil to obtain 30% drug concentration (168)	8216		UPDATE PT. CAS 13292-46-1. The drug and the patch test provoked DRESS syndrome
Ropivacaine		1% pet (53)	8258		NEW. CAS 84057-95-4. Probably cross-reaction in this case
Salvia officinalis extract		'As is' in aqua and pet (not further specified) (115)		+	UPDATE PT
Sevoflurane		ROAT with liquid sevoflurane (135,142)	8475		NEW. CAS 28523-86-6. Because of the volatility, patch tests may be false-negative (135)
Silk					Contact urticaria with anaphylaxis (148)
Sodium chondroitin sulfate		1% pet (157)		+	NEW. CAS 9007-28-7. Fifty controls were negative
Sodium cocoampho-propionate		1% aqua (151)		+	NEW. CAS 93820-52-1. Twenty controls were negative
Sodium formate		2% glycerin (74)	8621	+	UPDATE PT. No controls performed
Sodium metabisulfite		1% pet (73)	8638	+	UPDATE PT
Sodium sulfite		1% pet (90)	8682	+	UPDATE PT
sodium tetrachloro-palladate	See Disodium tetrachlo-ropalladate				
Sotalol hydrochloride		crushed tablet 10% pet (161)	8728		NEW. CAS 959-24-0. Three controls were negative. Pure chemical was not tested
TEA-salicylate	triethanolamine sali-cylate	5% pet (102)	9665	+	NEW. CAS 2174-16-5. No controls performed
Tetraamminepalladium (II) hydrogencarbonate					CAS 134620-00-1. Con-tact urticaria: ref. 194
Tetraamminepalladium (II) nitrate					CAS 13601-08-6. Con-tact urticaria: ref. 194
Tetrahydromagnolol	dipropylbiphenyl-2,2'-diol 5,5'-	0.5% pet (97)		+	NEW. CAS 20601-85-8. Four controls were negative
Tetrahydroxypropyl ethylenediamine		1% pet (117)		+	UPDATE PT. Of 34 control subjects, one had a positive (allergic) reaction
tetramethyl-1,2,3-hexadecanetriol 3,7,11,15-	See Phytantriol				

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Tinosorb® M		10% pet (106)			NEW. Tinosorb ® M consists of 40-55% methylene *bis*-benzo-triazolyl tetramethylbu-tylphenol, 6-10% decyl glucoside, 0.2-0.6% propylene glycol, 0.1-0.5% xanthan gum in water (162). It is suggested that the allergen is not the active ingredient methylene *bis*-benzotriazolyl tetramethylbutylphenol (synonym: bisoctrizole, CAS 103597-45-1), but decyl glucoside (106).
Topiramate		Crushed tablet, 30% pet (15)	9547		NEW. CAS 97240-79-4. Seventeen controls were negative. Positive patch test in patients with drug hypersensi-tivity syndrome (DRESS)
Trazodone hydrochlo-ride		Crushed tablet 30% pet (161)	9579		NEW. CAS 25332-39-2. Twelve controls were negative. Pure chemical was not tested
tree moss extract	See *Evernia furfuracea*				
Tricetearеth-4-phos-phate		1%-2% pet (92)		+	NEW. CAS 86338-11-6. Twenty-five controls were negative to 2% pet
Triclosan			9657	+	CAS 3380-34-5. Contact urticaria: ref. 188
triethanolamine sali-cylate	See TEA-salicylate				
Triethyleneglycol bis(2-ethylhexanoate)		0.03-5% alc 96% (wt/wt) (166)			NEW. CAS 94-28-0. Probably five controls were negative to the 5% alcoholic solution
Trifluoroacetic acid		1% aqua (169)	9681		NEW. CAS 76-05-1. Five controls were negative, but transient burning may be noticed
Trifluoromethyl-4-nitrophenyl)phthali-mide *N*-(3-		0.005% pet (42)			NEW. Twenty controls were negative
Trioleyl phosphate		1% pet (43)		+	NEW. CAS 3305-68-8. Twenty controls were negative
Triphenylguanidine		1.35% pet (149)			NEW. CAS 101-01-9. The test conc. is not irritant

NAME	2: SYNONYMS / OTHER NAMES	3: TEST CONC. & VEH./ REFERENCE	4	5	6: COMMENTS
Triphenyl phosphite		1% pet (69); 0.1% and 1% pet (186)			UPDATE PT. Twenty controls were negative to concentrations up to 1.6% pet (69)
Uranyl acetate		0.25% pet (131)	9861		NEW. CAS 541-09-3. Test concentrations of 2.5% pet or higher are irritant. No actual cases of contact allergy reported
Valiya narayana thailam ayurvedic oil		Undiluted (20)			NEW. Ten controls were negative. Base oil with material from 48 plants
Vancomycin		Crushed commercial tablet 500 mg 15% and 30% pet (172)	9929		UPDATE PT. CAS 1404-93-9. Twelve controls were negative. Positive patch test reaction in patient with drug eruption (DRESS or TEN).
Vinyl cyclohexene di(ep)oxide		0.5% pet (190)			UPDATE PT. CAS 106-87-6. Adequate controls performed
vitamin K1 (ep)oxide	See Phytonadione epoxide				
Xanthan gum		10% aqua (141)	10057	+	PT Update. CAS 11138-66-2
Zolpidem		Crushed tablet, 30% pet (8,161); 10% pet (26)	10190		NEW. CAS 82626-48-0. Ten controls were negative (26); pure chemical not tested

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