



Derwent World Patents Index

Polymer Indexing Hierarchy

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Introduction

The Polymer Indexing system is hierarchical in structure and divided into facets. There are two basic sections to the Code – the Structural section and the Non-structural section.

The Structural section contains all the chemical information and is made up of the following facets:- Polymer Formers, Polymer Types, Natural Polymers, Modified Polymers, Chemicals and Chemical Aspects.

The Non-structural section contains all the non-chemical information and is made up of the following facets:- Novelty Descriptors, Universal Terms, Polymer Descriptors, Shape & Form, Additives, Catalysts, Chemical Processes, Physical Operations, Equipment, Properties and Applications.

Within each facet there are main terms or Broader terms (BT), with sub-divisions or Narrower terms (NT); there are also Used For terms (UF) to indicate synonyms and See Also terms (SA), giving other related terms which may be of interest. Some of the terms have Scope notes, which explain the use and limitation of the term; these are found directly below the concept and appear within “ “. The codes for all the primary terms are situated to the left of the concept.

Enhancements

There have been enhancements to the system in 2004 and 1996. New concepts introduced in 2004 are indicated by (04) after the concept and likewise (96) for those introduced in 1996. For searching the new concepts using Polymer Indexing prior to their introduction, use the higher term in the hierarchy or the 'others' term if available. For example, the specific term Polypropylene terephthalate was introduced in 2004, prior to that it could be searched as the higher term Saturated polyester (P1978). However, Saturated polyester was only introduced in 1996 and so prior to that the term Polyester should be searched. Another example is n-Propyl acrylate which could be searched as Acrylic acid esters monoolefinic (G0340) or Acrylic acid esters monoolefinic, other (G0373) prior to 9601.

If the new concept is a main term and thus not in a hierarchy, such as Dendrimer, no codes exist for searching prior to 2004.

Other Polymer Indexing manuals available:-

Polymer Indexing Thesaurus – contains alphabetical listing of all terms and synonyms with their codes.

Polymer Indexing Reference Manual – contains Polymer Indexing Code List, Polymer Indexing Molecular Formula List and Polymer Indexing Chemical Aspects Graphical Definitions.

Polymer Indexing System Description – provides a detailed description of the Enhanced Polymer Index.

CPI Plasdoc Coding Systems - provides details of the hierarchical listing by subject area of all the Plasdoc codes from the time period 1966 -1994. Also included is a numerical listing of all the Plasdoc Codes, both Multipunch (AM) and Key Serial (KS) codes.

Polymer Descriptors

This facet contains functional concepts used to define the polymer formers. Throughout the hierarchies we have used the term polymer former to cover both monomers and condensants.

The format of the codes used in this facet is Hnnnn.

These terms have been arranged hierarchically where possible, with the Narrower terms (NT) autoposting the more generic term(s). Generic terms which are actually indexed, rather than autoposted, can be searched by adding '-R' to the end of the code; thus Copolymer which has been coded should be searched using H0011-R. Searching H0011 will retrieve all references - indexed and autoposted. For a complete listing of all autoposted codes, see Polymer Indexing Reference Manual.

The homopolymer and copolymer terms are applicable to all types of polymer. The homopolymer term is applied to all polymers made from a single polymer former, for example – polycaprolactone, polyvinylchloride, polyaniline. The terms in the copolymer hierarchy are applied to any polymer made from two or more polymer formers. The binary copolymer term is applied to all polymers made from two polymer formers, for example – phenol-formaldehyde resin, ethylene-vinyl acetate copolymer. The ternary or higher copolymer term is applied to polymers formed from 3 or more polymer formers, for example – EPDM, polyethylene terephthalate-isophthalate. Within this hierarchy there are concepts for defining types of block copolymer, graft copolymer and grafting polymer former, star, alternating and random copolymer.

The Oligomer term will be applied to alkylene oxides containing 5 - 9 repeat units and to other polymers containing 2 - 9 repeat units.

There are two terms used for handling macromers - Macromer as modified polymer and Macromer as polymer former.

The concept for Minor component is only applicable to polymer formers within a co- polymer.

The Modifying agent term is used when a specific modifying agent is used to modify a polymer; the term Atom(s) incorporated in polymer by modification is used to indicate the changed chemical structure of the modified polymer.

This facet also contains terms for Thermoplastic and Thermosetting. These terms will be applied when this is the only information available about the polymer or resin or when it is important. They will not be applied everytime a polymer is indexed.

Each polymeric component will have either a Polymer Descriptors or a Polymer Types code applied.

Polymer Descriptors

H0000 Homopolymer

“Polymer formed from a single polymer former”

H0011 Copolymer

“Polymer formed from >1 polymer former”

H0022	NT	Binary copolymer
		“Polymer formed from 2 polymer formers”
H0033	NT	Ternary or higher copolymer
		“Polymer formed from 3 or more polymer formers”
H0044	NT	Block copolymer
	UF	Ordered cocondensate
H0055	NT	A-B type block copolymer
H0066	NT	A-B-A type block copolymer
H0077	NT	Block copolymer type, other
H0088	NT	Graft copolymer
H0099	NT	Star polymer
H0102	NT	Alternating copolymer
		“Not used for simple condensates”
	UF	Ordered copolymer
H0113	NT	Random copolymer
		“Only used when stated to be such”

H0351 Dendrimer (04)

“Not used for hyperbranched polymer. For hyperbranched use B5005 Degree of branching.”

H0124 Elastomer

	UF	Rubber
H0135	NT	Thermoplastic elastomer

H0362 End functional polymer (04)

“Used for any polymer with end functional (i.e. reactive) group(s) that would not normally be present. The end functional groups must be for use or potential use in a reaction. In addition end modification will be indexed, if applicable. Examples include vinyl terminated polysiloxane and hydroxy terminated polybutadiene. The following examples would not be indexed as End functional polymer - carboxy terminated polyester, polyether polyols, NCO terminated polyurethane.”

H0373	NT	Amine end functional polymer (04)
		“Polymer-C-N(CH ₂) ₂ ”
H0384	NT	Carboxy end functional polymer (04)
		“Including salts. Polymer-CO ₂ H!”
H0395	NT	C-C unsaturation end functional polymer (04)
		“Polymer-C=C or Polymer-C ≡ C”
H0408	NT	Epoxy end functional polymer (04)
		“Including any group containing an epoxy group”
H0419	NT	Hydroxy end functional polymer (04)
		“Polymer-C-OH”
H0420	NT	Other end functional polymer (04)
	SA	Macromer as modified polymer
	SA	Telechelic polymer

H0146 Grafting polymer former

	UF	Grafting monomer
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H0157 Atoms(s) incorporated in polymer by modification

“Chemical aspects are applied with this term to represent the atoms incorporated”

SA Modifying agent

H0168 Head-to-head polymer**H0179 Ladder polymer****H0180 Living polymer****H0191 Macromer as modified polymer**

“Oligomer or polymer modified to incorporate polymerisable functional group(s)”

SA End functional polymer

H0204 Macromer as polymer former

“Polymer former containing oligomer or polymer within its structure”

H0215 Minor component

“Only used for polymer former component in copolymer, maximum 10%”

H0226 Modifying agent

SA Atoms(s) incorporated in polymer by modification

H0237 Oligomer

“For polyalkylene oxides 5-9 repeat units are regarded as oligomer; for other polymers 2-9 repeat units”

H0248 NT Dimer

H0259 Prepolymer**H0260 Polymer containing >1 Polymer Type**

“Excludes polymers formed by reaction through C-C unsaturation”

H0271 Polymer former

UF Condensant

UF Monomer

H0282 Polymer with structure tailored for property**H0293 Ring in backbone of polymer****H0339 Tapered polymer (96)**

“Used when the relationship between components in a copolymer changes in a regular manner - for example the content of one monomer increasing and the other decreasing. Not used to define the shape of an article or fibre.”

SA Block copolymer

SA Tapered fibre [shape & form]

H0340 Telechelic polymer (96)

“Used for telechelic polymers, pseudo-telechelic polymers and telechels when stated. Telechelic polymers are those with specifically introduced reactive or functional end groups, such as Hydroxy-telechelic polybutadiene, Furan-terminated telechels. These polymers are directly useable, without further modification, in their intended application.”

SA End functional polymer

SA Macromer as modified polymer

SA Macromer as polymer former

SA Living polymer

H0306 Telomer**H0317 Thermoplastic****H0328 Thermosetting**

Polymer Formers

This facet contains specific terms and generic terms for polymer formers. Throughout the hierarchies we have used the term polymer former to cover both monomers and condensants.

These terms are arranged hierarchically with generic terms represented by Gnnnn codes and Specific Compound Numbers Rnnnnn used for the specific compounds.

The basic hierarchical structure is:-

Organic

- acetylenic
- monoolefinic
- diolefinic
- triolefinic and higher
- saturated

Inorganic

All the Narrower terms (NT) autopost the more generic term(s). Generic terms which are actually indexed, rather than autoposted, can be searched by adding '-R' to the end of the code; thus Vinyl aromatics monoolefinic which has been coded, should be searched using G0102-R. Searching G0102 will retrieve all references - indexed and autoposted.

See Also (SA) terms which relate to concepts in a different facet have the facet indicated in brackets after the term.

Polymer former concepts will be indexed for all polymers where the polymer formers are known, but they will not be assumed.

The Polymer Formers also autogenerate the relevant Chemical Aspects. This enables very generic searching to be carried out, for example a chlorine containing diolefinic compound. For a complete list of autogenerated aspects see the Polymer Indexing Reference Manual.

The Specific Compound Numbers each have a finite set of Chemical Aspects, the generic terms autogenerate only those Chemical Aspects which define the common structural features of the hierarchy.

The Gnnnn codes (generic terms) can be used with Chemical Aspects, all of which should be linked together at level 1 for searching.

In 1993 when the Polymer Indexing system was introduced, the Specific Compound Numbers Rnnnnn used for the specific compounds, were based on an existing set of codes used with the Chemistry Fragmentation coding system and now found in the Derwent Chemistry Resource. This set of codes has

expanded to such a degree that the original format (Rnnnnn) is now exhausted and the Chemistry Specific Compound Numbers currently being introduced are now completely alpha numeric, although they are still 6 characters beginning with 'R', for example RA3QZC for Lauryl acrylate. In the Polymer Indexing system we have decided to keep to the original format of Specific Compound Numbers - Rnnnnn, but now autopost the Chemistry SCN where this is different.

Indexing Conventions:

Acrylic fibres (with no further chemical definitions) indexed as G0475.

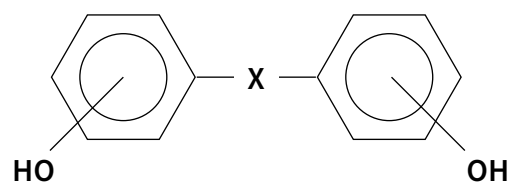
Carboxy vinyl polymer indexed as acrylic acid - polyallyl sucrose binary copolymer.

Perfluoroethers from tetrafluoroethylene and oxygen - indexed as tetrafluoroethylene polymer former and oxygen polymer former (G2346 O-).

Polyaluminoxanes from trialkylaluminium and water - indexed as trialkylaluminium polymer former and water polymer former (G2346 R01740).

Styrene-ethylene-butene-styrene block copolymer will be indexed as hydrogenated styrene-butadiene block copolymer, unless actually formed from styrene, ethylene and butene. Likewise, styrene-ethylene-propylene-styrene block copolymer will be indexed as hydrogenated styrene-isoprene block copolymer, unless otherwise stated.

Bisphenols are defined as having the structure below:-



Where X is a single bond or group not fused to either benzene ring and the benzene rings may be substituted.

Polymer Formers

G0000 Acetylenic

R00327	NT	Acetylene
		UF Ethyne
G0011	NT	Acetylenic, other

G0022 Monoolefinic

G0033	NT	(Cyclo)aliphatic monoolefinic hydrocarbons
G0044	NT	Aliphatic monoolefinic hydrocarbons
		UF Alkenes
R00326		NT Ethylene
		UF Ethene
R00964		NT Propylene
		UF Propene
G0055		NT Butenes (gen)
		“Used when no specific isomer given”
R00805		NT Butene-1
R00807		NT Butene-2
R00966		NT Isobutylene
R02047		NT Pentene-1
R02043		NT Hexene-1
R02046		NT Heptene-1
R00936		NT Octene-1
R02045		NT Decene-1
R24026		NT Octadecene-1
R02054		NT Methylbutene-1, 3-
		UF Isopentene-1
R15485		NT Methylpentene-1, 4-
G0066		NT Straight chain aliphatic monoolefinic hydrocarbon, other
G0077		NT Branched chain aliphatic monoolefinic hydrocarbon, other
G0088	NT	Cycloaliphatic monoolefinic hydrocarbons
R01289		NT Norbornene-2
		UF Bicyclo(2.2.1)hept-2-ene
R01140		NT Cyclopentene
G0099		NT Cycloaliphatic monoolefinic hydrocarbon, other
G0102	NT	Vinyl aromatics monoolefinic
R00708		NT Styrene
G0113		NT Vinyl toluenes (gen)
		“Used when no specific isomer given”
R01410		NT Vinyl toluene, 2-
R00725		NT Vinyl toluene, 3-
R01417		NT Vinyl toluene, 4-
R00673	NT	alpha-Methyl styrene
G0124	NT	Halomethyl styrenes (gen)
G0135		NT Chloromethyl styrene “Mono substituted; all isomers”
G0146		NT Bromomethyl styrene “Mono substituted; all isomers”
G0157	NT	Butyl styrene, t-
		“Mono substituted; all isomers”
G0168	NT	Vinylbenzyl trimethyl ammonium chloride
		“Mono substituted; all isomers”

R01416	NT	Cinnamic acid
G0179	NT	Vinyl phenol "Mono substituted; all isomers"
G0180	NT	Amino styrene "Mono substituted; all isomers"
G0191	NT	Styrene sulphonic acid + salts "Mono substituted; all isomers"
G4002	UF	Styrene sulfonic acid + salts
	NT	Styrene sulphonic acid (96) "Mono substituted; all isomers"
	UF	Styrene sulfonic acid
G0204	NT	Halo vinyl aromatics "Direct halo-ring bond only"
G0215	NT	Chloro vinyl aromatics "Direct chloro-ring bond only"
G0226	NT	Halo vinyl aromatics, other "Direct halo-ring bond only"
G0237	NT	Vinyl aromatic monoolefinic, other
G0248	NT	Non-vinyl aromatics monoolefinic
R01186	NT	Coumarone UF Benzofuran
R00614	NT	Indene
G0259	NT	Non-vinyl aromatic monoolefinic, other
G0260	NT	Acrylics monoolefinic
G0271	NT	Acrylic acids monoolefinic "Including salts thereof"
G0282	NT	Acrylic acid + salts "Monoolefinic only"
R00446	NT	Acrylic acid
R24001	NT	Sodium acrylate
R24000	NT	Potassium acrylate
G0293	NT	Acrylic acid salt, other
G0306	NT	Methacrylic acid + salts "Monoolefinic only"
R00460	NT	Methacrylic acid
G0317	NT	Crotonic acid + salts "Monoolefinic only"
G0328	NT	Acrylic acid + salts, other "Monoolefinic only: Excluding acrylic acid + salts, methacrylic acid + salts and crotonic acid + salts"
G0339	NT	Acrylic esters monoolefinic
G0340	NT	Acrylic acid esters monoolefinic
R00642	NT	Methyl acrylate
R01126	NT	Ethyl acrylate
R24081	NT	Propyl acrylate, n- (96)
R24024	NT	Isopropyl acrylate
G0351	NT	Butyl acrylates (gen) "Used when no specific isomer given"
R01130	NT	Butyl acrylate, n-
R09390	NT	Butyl acrylate, t-
R21978	NT	Butyl acrylate, s-
R24029	NT	Isobutyl acrylate

R00745	NT	Ethylhexyl acrylate, 2- UF Isooctyl acrylate
R24055	NT	Hexyl acrylate, n-
R24091	NT	Lauryl acrylate (04)
R24092	NT	Stearyl acrylate (04)
R24093	NT	Cyclohexyl acrylate (04)
R24094	NT	Isobornyl acrylate (04)
R24095	NT	Benzyl acrylate (04)
R00799	NT	Glycidyl acrylate
G0362	NT	Hydroxyalkyl acrylates
R01454	NT	Hydroxyethyl acrylate, 2-
R24023	NT	Hydroxypropyl acrylate, 2-
R21505	NT	Dimethylaminoethyl acrylate (04)
R24096	NT	Acryloxypropyl trimethoxy silane, 3- (04)
R24105	NT	Isocyanatoethyl acrylate, 2- (04)
R24022	NT	Phenoxyethyl acrylate
G4079	NT	Adamantyl acrylates (gen) (04) "Optionally substituted"
R24106	NT	Adamantyl acrylate (04)
G4080	NT	Other adamantyl acrylate (04)
G0373	NT	Acrylic acid ester monoolefinic, other"
G0384	NT	Methacrylic acid esters monoolefinic
R00479	NT	Methyl methacrylate
R00653	NT	Ethyl methacrylate
R24082	NT	Propyl methacrylate, n- (96)
R24021	NT	Isopropyl methacrylate
G0395	NT	Butyl methacrylates (gen) "Used when no specific isomer given"
R00657	NT	Butyl methacrylate, n-
R11165	NT	Butyl methacrylate, t-
R24020	NT	Butyl methacrylate, s-
R21453	NT	Isobutyl methacrylate
R17881	NT	Ethylhexyl methacrylate, 2- UF Isooctyl methacrylate
R24097	NT	n-Hexyl methacrylate (04)
R24019	NT	Lauryl methacrylate
R22940	NT	Stearyl methacrylate
R24017	NT	Cyclohexyl methacrylate
R24016	NT	Isobornyl methacrylate
R24007	NT	Benzyl methacrylate
R00800	NT	Glycidyl methacrylate
G0408	NT	Hydroxyalkyl methacrylate
R01463	NT	Hydroxyethyl methacrylate, 2-
R24015	NT	Hydroxypropyl methacrylate, 2-
R01606	NT	Dimethylaminoethyl methacrylate
R05257	NT	Methacryloxypropyl trimethoxysilane, 3- SA Methacrylato silanes (gen) [chemicals]
R24054	NT	Isocyanatoethyl methacrylate, 2-
R24098	NT	Phenoxyethyl methacrylate (04)
G4091	NT	Adamantyl methacrylates (gen) (04) "Optionally substituted"
R24099	NT	Adamantyl methacrylate (04)

G4104		NT	Other adamantyl methacrylate (04)
G0419		NT	Methacrylic acid ester monoolefinic, other
G0420		NT	alpha-Cyanoacrylic acid esters monoolefinic
G0431		NT	alpha-Haloacrylic acid esters monoolefinic
G0442		NT	Acrylic ester monoolefinic, other
G0453	NT	Acrylic	amides monoolefinic
R00444		NT	Acrylamide
R00459		NT	Methacrylamide
R07701		NT	Methylolacrylamide, N-
R21733		NT	Dimethylacrylamide, N,N-
R03538		NT	Acrylamido-2-methylpropanesulphonic acid, 2-"
		UF	Acrylamido-2-methylpropanesulfonic acid, 2-
G4013		NT	Acrylamido-2-methylpropanesulphonic salts, 2- (96)
		UF	Acrylamido-2-methylpropanesulfonic salts, 2-"
R18902		NT	Diacetone acrylamide
G0464		NT	Acrylic amide monoolefinic, other
G0475	NT	Acrylic	nitriles monoolefinic
R00817		NT	Acrylonitrile
		UF	Vinyl cyanide
R01078		NT	Methacrylonitrile
R01468		NT	Vinylidene cyanide
G0486		NT	Acrylic nitrile monoolefinic, other
G0497	NT	Acrylic	aldehydes monoolefinic
R00808		NT	Acrolein
R00433		NT	Methacrolein
G0500		NT	Acrylic aldehyde monoolefinic, other
G0511	NT	Acrylic	acid halides monoolefinic
R01453		NT	Acryloyl chloride
R01466		NT	Methacryloyl chloride
G0522		NT	Acrylic acid halide monoolefinic, other
G0533	NT	Acrylic	monoolefinic, other
G0544	NT	Vinyl	halides
R01404		NT	Vinyl bromide
R00338		NT	Vinyl chloride
R00339		NT	Vinyl fluoride
R24014		NT	Vinyl iodide
G0555	NT	Vinylidene	halides
R01405		NT	Vinylidene bromide
R00360		NT	Vinylidene chloride
R00363		NT	Vinylidene fluoride
R24013		NT	Vinylidene iodide
G0566	NT	Vinyl	carboxylic esters monoolefinic
R00835		NT	Vinyl acetate
R22506		NT	Vinyl propionate
R01038		NT	Vinyl butyrate
R00935		NT	Vinyl stearate
G0577		NT	Vinyl carboxylic ester monoolefinic, other
G0588	NT	Vinyl	ethers monoolefinic
R00824		NT	Methyl vinyl ether
R00892		NT	Ethyl vinyl ether
R14573		NT	Butyl vinyl ether, n-
R24012"		NT	Isobutyl vinyl ether

G0599		NT	Vinyl ether monoolefinic, other
G0602	NT		Vinyl thioethers monoolefinic
G4137	NT		Vinyl caprolactones (04)
G0613	NT		Vinyl pyridines (gen)
			“Optionally substituted; used when no specific isomer given”
R00724		NT	Vinyl pyridine, 2-
R00709		NT	Vinyl pyridine, 4-
G0624	NT		Vinyl carbazoles
G0635	NT		Vinyl pyrrolidones
G0646	NT		Vinyl phthalimides
R01619	NT		Vinyl isocyanate
G0657	NT		Vinyl caprolactams
G0668	NT		Vinyl imidazoles
G4148	NT		Vinyl amides, N- (04)
R11746		NT	Vinyl acetamide, N- (04)
R08072		NT	Vinyl formamide, N-
G4159		NT	Vinyl amide, N- other (04)
G0679	NT		Unsaturated ketones monoolefinic
R00438		NT	Vinyl methyl ketone
R21842		NT	Methyl isopropenyl ketone
G0680		NT	Unsaturated ketone monoolefinic, other
R24011	NT		Vinyl sulphonic acid
		UF	Vinyl sulfonic acid
G0691	NT		Vinyl silanes monoolefinic
			“Used when no specific vinyl silane given”
R05399		NT	Vinyl triacetoxy silane
R00390		NT	Vinyl trichloro silane
R05400		NT	Vinyl triethoxy silane
R05402		NT	Vinyl trimethoxy silane
R05401		NT	Vinyl tris(2-methoxyethoxy) silane
G0704		NT	Vinyl silane monoolefinic, other
G0715	NT		(Meth)allyl derivatives monoolefinic
R01399		NT	Allyl acetate
R00820		NT	Allyl alcohol
R00815		NT	Allyl amine
R00810		NT	Allyl chloride
G0726		NT	Allyl ethers
R10657		NT	Allyl glycidyl ether
R24010		NT	Allyl sulphonic acid
		UF	Allyl sulfonic acid
G0737		NT	Allyl monoolefinic, other
R24009		NT	Methallyl sulphonic acid
		UF	Methallyl sulfonic acid
G0748		NT	Methallyl monoolefinic, other
R00975	NT		Tetrafluoroethylene
R00458	NT		Chlorotrifluoroethylene
R00976	NT		Hexafluoropropylene
R06317	NT		Trifluoroethylene
G0759	NT		Perfluoro(alkyl vinyl ether)
R01083	NT		Tetrachloroethylene
G0760	NT		Dicarboxylic derivatives monoolefinic
R00901		NT	Maleic acid

R00843	NT	Maleic anhydride
R05167	NT	Dioctyl maleate
R06723	NT	Phenylmaleimide, N-
R00902	NT	Fumaric acid
R00654	NT	Itaconic acid
R10232	NT	Itaconic anhydride (96)
R01288	NT	Citraconic acid
	UF	Methyl maleic acid
R13156	NT	Citraconic anhydride (96)
	UF	Methyl maleic anhydride
R05342	NT	Tetrahydrophthalic acid
R00516	NT	Tetrahydrophthalic anhydride
G0771	NT	Methyl tetrahydrophthalic anhydride
		"All isomers"
R24008	NT	Nadic acid
	UF	Carbic acid
R01094	NT	Nadic anhydride
	UF	Carbic anhydride
G0782	NT	Methyl nadic anhydride
		"All isomers"
R00968	NT	Chlorendic acid
R00967	NT	Chlorendic anhydride
G0793	NT	Dicarboxylic derivative monoolefinic, other
R00954	NT	Oleic acid
G0806	NT	Monoolefinic, other

G0817 Diolefinic

G0828	NT	Conjugated aliphatic diolefinic
R00806	NT	Butadiene
R00429	NT	Isoprene
R01079	NT	Chloroprene
	UF	Chloro-1,3-butadiene, 2-
R01299	NT	Piperylene
	UF	Pentadiene, 1,3-
G0839	NT	Conjugated aliphatic diolefinic, other
G0840	NT	Aromatic hydrocarbons diolefinic
G0851	NT	Divinyl benzenes
		"All isomers"
G0862	NT	Aromatic hydrocarbon diolefinic, other
G0873	NT	Esters, non-conjugated diolefinic
R01479	NT	Allyl acrylate
R24006	NT	Methallyl acrylate
R00637	NT	Allyl methacrylate
R24005	NT	Methallyl methacrylate
G0884	NT	Diallyl phthalates (gen)
R01098	NT	Diallyl phthalate, 1,2-
R01592	NT	Ethylene glycol diacrylate
	UF	Glycol diacrylate
R00658	NT	Ethylene glycol dimethacrylate
	UF	Glycol dimethacrylate
R01595	NT	Diethylene glycol dimethacrylate
	UF	Diglycol dimethacrylate

R24079	NT	Diethylene glycol diacrylate
R05378	NT	Triethylene glycol dimethacrylate
G0895	NT	Butanediol diacrylates (gen) "Used when no specific isomer given"
R24004		NT Butanediol diacrylate, 1,4-
R03629		NT Butanediol diacrylate, 1,3-
R01611	NT	Butanediol dimethacrylate, 1,4-
R08320	NT	Hexanediol diacrylate, 1,6-
R24003	NT	Hexanediol dimethacrylate, 1,6-
R15368	NT	Diethylene glycol bis(allyl carbonate)
G0908	NT	Non-conjugated ester diolefinic, other
G0917	NT	Cycloaliphatic hydrocarbons diolefinic
R01353	NT	Cyclopentadiene
R00416	NT	Dicyclopentadiene
R01608	NT	Ethylidene norbornene UF Ethylidene bicyclo(2.2.1)hept-2-ene, 5-
G0920	NT	Cycloaliphatic hydrocarbon diolefinic, other
G0931	NT	Non-conjugated aliphatic hydrocarbons diolefinic
R01402	NT	Hexadiene, 1,4-
G0942	NT	Non-conjugated aliphatic hydrocarbon diolefinic, other
R08306	NT	Diallyl dimethyl ammonium chloride UF DADMAC
R08767	NT	Methylene bisacrylamide
R13150	NT	Acrylic anhydride
R13149	NT	Methacrylic anhydride
G0953	NT	Bismaleimides
G0964	NT	Diolefinic, other

G0975 Triolefinic and higher

G4115	NT	Tri- or higher acrylates (04)
R05388	NT	Trimethylolpropane triacrylate
R05389	NT	Trimethylolpropane trimethacrylate
R21451	NT	Pentaerythritol triacrylate
R17444	NT	Pentaerythritol tetraacrylate (04)
R15746	NT	Dipentaerythritol pentaacrylate (04)
R15747	NT	Dipentaerythritol hexaacrylate (04)
G4126	NT	Tri- or higher acrylates, other (04)
R05364	NT	Triallyl cyanurate
R00733	NT	Triallyl isocyanurate UF Triallyl isocyanuric acid, N, N', N''-
R12852	NT	Tetramethyltetravinylcyclotetrasiloxane
G2357	NT	Polyallyl sucrose
G0986	NT	Triolefinic or higher, other

G0997 Alcohols

"Excluding phenols"

G1003	NT	Monohydroxy alcohols
R00660	NT	Furfuryl alcohol
G1014	NT	Monohydroxy alcohol, other SA Monophenols
G1025	NT	Dihydroxy alcohols
R00822	NT	Ethylene glycol UF Glycol

R00930		NT	Diethylene glycol UF Diglycol
R00947		NT	Triethylene glycol
R00952		NT	Tetraethylene glycol
R00137		NT	Propylene glycol, 1,2-
R01300		NT	Propane diol, 1,3- UF Trimethylene glycol
R07332		NT	Dipropylene glycol
R22882		NT	Tripropylene glycol
G1036		NT	Butane diols (gen) "Linear unbranched chains only; used when no specific isomer given"
R01390		NT	Butane diol, 1,2-
R00831		NT	Butane diol, 1,3-
R00908		NT	Butane diol, 1,4-"
G1047		NT	Hexane diols (gen) "Linear unbranched chains only"
R01422		NT	Hexane diol, 1,6- UF Hexamethylene glycol
R15351		NT	Hexane diol, 2,5-
R01075		NT	Neopentyl glycol UF Dimethyl-1,3-propane diol, 2,2-
R00770		NT	Cyclohexyl dimethanol, 1,4- UF Dimethylol cyclohexane, 1,4-
R00469		NT	Hydrogenated bisphenol A UF Bis(4-hydroxycyclohexyl)propane, 2,2-
G1058		NT	Alkylene oxide adducts of bisphenols
G1069		NT	Dihydroxy alcohol, other SA Diphenols
G1070	NT		Polyhydroxy alcohols
R00113		NT	Glycerol UF Glycerine
R00972		NT	Pentaerythritol
R00032		NT	Sorbitol
R00420		NT	Trimethylol propane
R05429		NT	Tris(hydroxyethyl)isocyanurate UF Tris(2-hydroxyethyl)-s-triazine-2,4,6-trione, 1,3,5-
G1081		NT	Polyhydroxy alcohol, other SA Polyphenols SA Phenols

G1092 Phenols

G1105	NT		Monophenols
R00868		NT	Phenol
G1116		NT	Cresols (gen) "Used when no specific isomer given"
R00620		NT	Cresol, 2-
R00846		NT	Cresol, 3-
R00787		NT	Cresol, 4-
G1127		NT	Xylenols (gen)
R01387		NT	Xylenol, 2,6-
R01110		NT	Naphthol, 2-
G1138		NT	Monohydric phenol, other

G1149	NT	Diphenols	
R00851		NT	Resorcinol
R01041		NT	Hydroquinone
R05362		NT	Methylhydroquinone
		UF	Tolhydroquinone
R01006		NT	Pyrocatechol
		UF	Catechol
		UF	Dihydroxybenzene, 1,2-
G1150		NT	Bisphenols (gen)
R06529		NT	Dihydroxybiphenyl, 4,4'-
		UF	Biphenol, 4,4'-
G1161		NT	Isopropylidene bisphenols
R00470		NT	Bisphenol A
		UF	Bis(4-hydroxyphenyl)propane, 2,2-
R03113		NT	Tetrabromobisphenol A, 3,3',5,5'-
		UF	Bis(3,5-dibromo-4-hydroxyphenyl)propane, 2,2-
G1172		NT	Isopropylidene bisphenol, other
R13033		NT	Bisphenol AF (96)
		UF	Bis(4-hydroxyphenyl)hexafluoropropane, 2,2-
G1183		NT	Bisphenol ethers
G1194		NT	Bisphenol ketones
G1207		NT	Bisphenol methanes
R12487		NT	Bisphenol F
		UF	Bis(4-hydroxyphenyl)methane
G1218		NT	Bisphenol methane, other
G1229		NT	Bisphenol sulphides
		UF	Bisphenol sulfides
G1230		NT	Bisphenol sulphones
		UF	Bisphenol sulfones
R00473		NT	Bisphenol S
		UF	Bis(4-hydroxyphenyl)sulphone
G1241		NT	Bisphenol sulphone, other
G1252		NT	Bisphenol, other
G1263		NT	Diphenol, other
G1274	NT		Polyphenols
R00539		NT	Pyrogallol
		UF	Trihydroxybenzene, 1,2,3-
G1285		NT	Polyphenol, other
G1296 Carbonates			
R00645		NT	Ethylene carbonate
		UF	Dioxolone
R00844		NT	Propylene carbonate
		UF	Methyl-1,3-dioxolan-2-one, 4-
R21644		NT	Diethyl carbonate
R07250		NT	Dimethyl carbonate
R06918		NT	Diphenyl carbonate
G1309		NT	Carbonate, other
G4024 Carboxylic derivatives (96)			
G1310		NT	Carboxylic acids
G1321		NT	Polymerised fatty acids
		UF	Dimer acids

G1332		NT	Monobasic carboxylic acids
R03993			NT Acetoxybenzoic acid, 4-
G1343		NT	Dibasic carboxylic acids
R01152			NT Oxalic acid
R00900			NT Succinic acid
R00920			NT Glutaric acid
			UF Propane dicarboxylic acid, 1,3-
R01060		NT	Adipic acid
			UF Hexanedioic acid
			UF Butane dicarboxylic acid, 1,4-
R00923		NT	Pimelic acid
			UF Pentane dicarboxylic acid, 1,5-
R01302		NT	Suberic acid
			UF Hexane dicarboxylic acid, 1,6-
R01059		NT	Azelaic acid
			UF Heptane dicarboxylic acid, 1,7-
			UF Nonanedioic acid"
R00924		NT	Sebacic acid
			UF Octane dicarboxylic acid, 1,8-
R07786		NT	Dodecanedioic acid
R00554		NT	Phthalic acid
			UF Benzene dicarboxylic acid, 1,2-
R01023		NT	Isophthalic acid
			UF Benzene dicarboxylic acid, 1,3-
R00702		NT	Terephthalic acid
			UF Benzene dicarboxylic acid, 1,4-
R01489		NT	Naphthalene dicarboxylic acid, 2,6-
			UF Naphthalic acid, 2,6-
G1354		NT	Sulphoisophthalic acid + salts
			UF Sulfoisophthalic acid + salts
R10610		NT	Sulphoisophthalic acid, 5-sodium salt
			UF Sulfoisophthalic acid, 5-sodium salt
G1365		NT	Dibasic carboxylic acid, other
G1376	NT		Polybasic carboxylic acids
R01328		NT	Trimellitic acid
			UF Benzene tricarboxylic acid, 1,2,4-
R00555		NT	Pyromellitic acid
			UF Benzene tetracarboxylic acid, 1,2,4,5-
G1387		NT	Polybasic carboxylic acid, other
G1398	NT		Carboxylic anhydrides
G1401		NT	Dibasic carboxylic anhydrides
R00842		NT	Succinic anhydride
R00515		NT	Hexahydrophthalic anhydride
			UF Cyclohexane dicarboxylic anhydride
R08834		NT	Methylhexahydrophthalic anhydride
R00517		NT	Phthalic anhydride
R05336		NT	Tetrabromophthalic anhydride
R05339		NT	Tetrachlorophthalic anhydride
G1412		NT	Dibasic carboxylic anhydride, other
G1423	NT		Polybasic carboxylic anhydrides
R01363		NT	Trimellitic anhydride
R00556		NT	Pyromellitic dianhydride

R05043	NT	Benzophenone tetracarboxylic dianhydride, 3,3',4,4'-
R12068	NT	Biphenyl tetracarboxylic dianhydride
R19233	NT	Hexafluoroisopropylidene diphthalic anhydride, 4,4'-(96)
	UF	Isobenzofurandione, 5,5'-(2,2,2-trifluoro-1-trifluoromethyl)-hydride) bis-1,3-
R24083	NT	Oxydiphthalic dianhydride, 4,4'-(96)
	UF	Diphenyl ether tetracarboxylic acid dianhydride
G1434		NT Polybasic carboxylic anhydride, other
G1445	NT	Carboxylic esters
G1456	NT	Dibasic carboxylic esters
R01002		NT Dimethyl terephthalate
G1467		NT Dibasic carboxylic ester, other
G1478	NT	Carboxylic acid halides
G1489	NT	Dibasic carboxylic acid halides
R03807		NT Phthaloyl chloride
R03806		NT Isophthaloyl chloride
R00701		NT Terephthaloyl chloride
G1490		NT Dibasic carboxylic acid halide, other

G4035 Acetals (96)

R00917	NT	Trioxane
R24025	NT	Tetraoxacin
R01435	NT	1,3-Dioxolane (96)
R12337	NT	1,3-Dioxane (96)
G4046	NT	Acetal, other (96)

G1503 Aldehydes

R00001	NT	Formaldehyde"
R00343	NT	Acetaldehyde
R00823	NT	Glyoxal
R00927	NT	Glutaraldehyde
R00715	NT	Benzaldehyde
R00661	NT	Furfuraldehyde
	UF	Furfural
G1514	NT	Aldehyde, other

G1525 Ketones

R00272	NT	Acetone
	UF	Dimethylketone
	UF	Propanone, 2-
R03599	NT	Hexafluoroacetone
R00437	NT	Methyl ethyl ketone
	UF	MEK
G1536	NT	Ketone, other

G1547 Ketenes

R01271	NT	Ketene"
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G1558 Epoxides

R00351	NT	Ethylene oxide
	UF	Oxirane
R00370	NT	Propylene oxide
G1569	NT	Butylene oxide
		"All epoxide isomers"
R05070	NT	Butyl glycidyl ether

R00638	NT	Styrene oxide
R10004	NT	Hexafluoropropylene oxide
G1570	NT	Epihalohydrins
R00798	NT	Epichlorohydrin
G1581	NT	Epoxide, other
G1592 Cyclic ethers		
G1605	NT	Oxacyclobutanes (gen)
R11352	NT	Bis(chloromethyl)oxacyclobutane
	UF	Bis(chloromethyl)oxetane, 3,3-
G1616	NT	Oxacyclobutane, other
R00896	NT	Furan
R00895	NT	Tetrahydrofuran
[G1627	NT	Dioxanes (gen)] discontinued 199601
R01057	NT	1,4 Dioxane
G1638	NT	Cyclic ether, other
G1649 Amines		
G1650	NT	Monoamines
R00232	NT	Aniline
R01020	NT	Dimethyl aniline, N,N-
R01176	NT	Ethyleneimine
	UF	Aziridine
R00894	NT	Pyrrole
G1661	NT	Monoamine, other
G1672	NT	Diamines
R00819	NT	Ethylene diamine
R00905	NT	Diaminobutane, 1,4-
	UF	Butane diamine, 1,4-
	UF	Tetramethylene diamine diamine
R01062	NT	Hexane diamine, 1,6-
	UF	Hexamethylene diamine
G1683	NT	Diaminodiphenyl ethers
R07859	NT	Diaminodiphenyl ether, 3,4'- (96)
	UF	Oxydianiline, 3,4'-
R09389	NT	Diaminodiphenyl ether, 4,4'-
	UF	Oxydianiline, 4,4'-
G1694	NT	Diaminodiphenyl ether, other
G1707	NT	Diaminodiphenyl ketones
G1718	NT	Diaminodiphenyl methanes
R00737	NT	Diaminodiphenyl methane, 4,4'-
	UF	Methylene dianiline, 4,4'-
G1729	NT	Diaminodiphenyl methane, other
G1730	NT	Diaminodiphenyl sulphides
	UF	Diaminodiphenyl sulfides
G1741	NT	Diaminodiphenyl sulphones
	UF	Diaminodiphenyl sulfones
R00472	NT	Diaminodiphenyl sulphone, 4,4'-
	UF	Bis(4-aminophenyl)sulphone
G1752	NT	Diaminodiphenyl sulphone, other
G1763	NT	Diaminobenzenes
		"Optionally substituted"
R00624	NT	Phenylene diamine, 2-

R00850		NT	Phenylene diamine, 3-
R00793		NT	Phenylene diamine, 4-
R00632		NT	Diamino toluene, 2,4-
G1774		NT	Diaminobenzene, other
G4057	NT		Bis (aminophenoxy) benzenes (96)
		UF	Bis (1,3-aminophenoxy) benzene, 1,3-
		UF	Bis (1,4-aminophenoxy) benzene, 1,3-
G1785	NT		Xylylene diamine "All isomers"
R04047	NT		Isophorone diamine
R01188	NT		Triethylene diamine
		UF	Diazabicyclo(2.2.2)octane, 1,4-
R15286	NT		Benzoguanamine
		UF	Diamino-6-phenyl-s-triazine, 2,4-"
G1796	NT		Diamine, other
G1809	NT		Polyamines
R00928	NT		Diethylene triamine
R00925	NT		Triethylene tetramine
R00727	NT		Hexamethylene tetramine
		UF	Hexamine
		UF	Urotropin
R00859	NT		Melamine
		UF	Triamino-s-triazine, 2,4,6-
G1810	NT		Polyamine, other
G1821 Ureas			
R00123	NT		Urea
R01265 Hydantoin			
R01264 Dicyanodiamide			
R00956 Guanidine			
G1832 Thioureas			
R00235	NT		Thiourea
G1843 Isocyanates			
G1854	NT		Diisocyanates
R01455	NT		Hexamethylene diisocyanate
		UF	HMI
G1865	NT		Trimethylhexamethylene diisocyanates "All isomers"
R09192	NT		Cyclohexane diisocyanate, 1,4-
R17132	NT		Dicyclohexylmethane diisocyanate, 4,4'-
R01624	NT		Isophorone diisocyanate
		UF	Trimethyl-1-isocyanatomethyl-5-isocyanato cyclohexane, 1,3,3-
G1876	NT		Phenylene diisocyanate "All isomers"
G1887	NT		Diphenylmethane diisocyanates (gen) "Used when no specific isomer given"
		UF	MDI
R00735	NT		Diphenylmethane diisocyanate, 4,4'-
		UF	MDI, 4,4'-
R20015	NT		Diphenylmethane diisocyanate, 2,4'-

		UF	MDI, 2,4'-
G1898	NT		Diphenylmethane diisocyanate, other
G1901		NT	Naphthalene diisocyanates (gen)
R12045	NT		Naphthalene diisocyanate, 1,5-
G1912	NT		Toluene diisocyanates (gen)
			"Used when no specific isomer given"
		UF	TDI
R01392		NT	Toluene diisocyanate, 2,4-
		UF	TDI, 2,4-
R00574		NT	Toluene diisocyanate, 2,6-
		UF	TDI, 2,6-
G1923	NT		Xylylene diisocyanate
			"All isomers"
G1934		NT	Diisocyanate, other
G1945	NT		Polyisocyanates
R24058		NT	Polymethylenepolyphenylene polyisocyanate
		UF	PAPI
G1956	NT		Polyisocyanate, other

G1967 Isothiocyanates

G1978 Halogen containing

R00345	NT		Dichloromethane
		UF	Methylene chloride
G1989	NT		Dichloroethanes (gen)
			"Used when no specific isomer given"
R00359		NT	Dichloroethane, 1,1-
R00811		NT	Dichloroethane, 1,2-
		UF	Ethylene dichloride
R00621	NT		Dichlorobenzene, 2-
R00789	NT		Dichlorobenzene, 4-
R00471	NT		Dichlorodiphenyl sulphone, 4,4'-
		UF	Dichlorodiphenyl sulfone, 4,4'-
R24002	NT		Difluorodiphenyl ketone, 4,4'-
G1990	NT		Halogen containing, other

G2006 Thioethers

R00898	NT		Thiophene
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G2017 Mercaptans

R00201	NT		Mercaptoethanol
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G2028 Sulphonic acids + salts

		UF	Sulfonic acids + salts
R00667	NT		Benzene sulphonic acid
R00760	NT		Toluene sulphonic acid
G2039	NT		Naphthalene sulphonic acids
			"Mono substituted; all isomers"
G2040	NT		Naphthalene sulphonic acid salts
			"Mono substituted; all isomers"
G2051	NT		Sulphonic acid + salts, other

G2062 Amino acids

"Carboxylic acids only"

R00205	NT	Aminocaproic acid
R24048	NT	Aminoanthic acid, 1,7-
R24051	NT	Aminoundecanoic acid, 1,11-
R00114	NT	Aspartic acid (04)
		UF 2-Amino-succinic acid
R01655	NT	Lysine (04)
		UF 2,6-Diamino-hexanoic acid
G2073	NT	Amino acid, other

G2084 Lactams

R00776	NT	Caprolactam
R24049	NT	Enantholactam,1,7-
R24050	NT	Undecanolactam, 1,11-
R08563	NT	Laurolactam
		UF Dodecyl lactam
G2095	NT	Lactam, other

G2108 Hydroxy acids

"Carboxylic acids only"

R00448	NT	Glycolic acid
		UF Hydroxyacetic acid
R00009	NT	Lactic acid
		UF Hydroxypropionic acid, 2-
R01656	NT	Malic acid (04)
		UF Hydroxybutanedioic acid
		UF 2-Hydroxy-succinic acid
R00540	NT	Tartaric acid
R00419	NT	Citric acid
		UF Hydroxy-3,4-dicarboxy-n-butyric acid, 3-
G2119	NT	Hydroxybenzoic acid (gen)
		"Mono substituted; all isomers"
		UF Salicylic acid
R06653	NT	Hydroxystearic acid, 12-
G2120	NT	Hydroxy acid, other

G2131 Lactones

R00644	NT	Butyrolactone"
R01295	NT	Caprolactone
R17298	NT	Glycolide
G4068	NT	Lactide (96)
		UF Dimethyl-1,4-dioxane-2,5-dione, 3,6-
G2142	NT	Lactone, other

G2153 Hydroxyamines

R01131	NT	Ethanolamine
R00929	NT	Diethanolamine
R00743	NT	Triethanolamine
R00887	NT	Methylethanolamine, N-
		UF (Methylamino)ethanol, 2-
R00834	NT	Dimethylethanolamine, N,N-
G2164	NT	Aminophenol
		"All isomers"
G2175	NT	Hydroxyamine, other

G2186 Vegetable oil

	UF	Drying oil
	UF	Non-drying oil
G2197	NT	Castor oil
G2200	NT	Linseed oil
G2211	NT	Soybean oil

G2222 Epoxidised vegetable oil

	UF	Epoxidized vegetable oil
	UF	Epoxidised drying oil
	UF	Epoxidised non-drying oil
G2233	NT	Epoxidised castor oil
G2244	NT	Epoxidised linseed oil
G2255	NT	Epoxidised soybean oil

G2266 Si compounds, organic

G2277	NT	Si compounds containing 1 Si
R16680	NT	Dimethylchlorosilane
R00383	NT	Dimethyldichlorosilane
R24030	NT	Methyldichlorosilane
R00382	NT	Trimethylchlorosilane
R24031	NT	Methylmethoxysilane
R23114	NT	Dimethyldimethoxysilane
R08655	NT	Methyltrimethoxysilane
R09202"	NT	Methyltriethoxysilane (96)"
R22582	NT	Butyl methyl dimethoxysilane, t-
R08200	NT	Diphenyldimethoxysilane
R00384	NT	Methyltrichlorosilane
G2288	NT	Si compounds containing 1 Si, other
G2299	NT	Si compounds containing 2 Si or more
R04617	NT	Hexamethyldisilazane"
R07702	NT	Octamethylcyclotetrasiloxane
G2302	NT	Si compounds containing 2 Si or more, other
	SA	Tetramethyltetra vinylcyclotetrasiloxane
	SA	Amino silanes (gen) [chemicals]
	SA	Epoxy silanes (gen) [chemicals]
	SA	Mercapto silanes (gen) [chemicals]

G2313 Unsubstituted Hydrocarbons**G2324 Organic polymer former, other****G2335 Inorganic polymer formers**

R13387	NT	Carbonic acid
R00365	NT	Phosgene
R01066	NT	Carbon dioxide
R01423	NT	Carbon monoxide
R01674	NT	Sulphur dioxide
	UF	Sulfur dioxide
R01208	NT	Hydrazine
R01518	NT	Sodium sulphide
	UF	Sodium sulfide
R01740	NT	Water (96)
G2346	NT	Inorganic polymer former, other

Polymer Types

The Polymer Types facet is arranged with six very general concepts at the beginning and the remaining main terms and hierarchies then arranged alphabetically. The codes are of the format Pnnnn.

This facet contains concepts for defining the type of polymer; some of these concepts are very general and just define the polymer in terms of how it is formed, others are used to define the generic type, e.g. polyester, and others are very specific, such as ethylene vinyl acetate binary copolymer.

At least one of these Polymer Type codes or Polymer Descriptor code must be applied to every polymer indexed; often in practice several of the codes are applied to define a single polymer.

Within each hierarchy, the Narrower Terms (NT) will autopost the more generic term(s). When a Polymer Type term occurs in more than one hierarchy, such as Polyesteramide, it will autopost all relevant Broader terms. Generic terms which are actually indexed, rather than autoposted, can be searched by adding '-R' to the end of the code; thus Acrylic polymer which has been coded should be searched using P0088-R. Searching P0088 will retrieve all references- indexed and autoposted.

The Polymer Type terms autogenerate only a few Chemical Aspects, such as Amide from Polyamide, but Chemical Aspects can be indexed and searched with the generic Polymer Types.

A complete list of these autogenerated codes is given in the Polymer Indexing Reference Manual.

Styrene-ethylene-butene-styrene block copolymer will be indexed as hydrogenated styrene-butadiene block copolymer, unless actually formed from styrene, ethylene and butene.

Likewise, styrene-ethylene-propylene-styrene block copolymer will be indexed as hydrogenated styrene-isoprene block copolymer.

A polymer with no single Polymer Type code applicable, e.g. polyetheramideketone, will have all the relevant main codes applied - in this case Polyether, Polyamide and Polyketone, along with the code H0260 for Polymer containing >1 Polymer Type.

Polymers such as Polyethylene will have all the relevant codes applied - in this case Polyolefin (Polymer Type), Polyethylene (Polymer Type), Ethylene (Polymer Former) and Homopolymer (Polymer Descriptor).

In the cases where a Polymer Type code fully defines a polymer by polymer former and polymer descriptor, then searching the Polymer Type code will give the same results as searching the Polymer Former(s) linked to the Polymer Descriptor. For example, P0099 Polyacrylic acid is equivalent to Acrylic acid Homopolymer R00446 (2) H0000.

Polymer Types

P0000 Polymer type (gen)

“Used when neither polymer type nor polymer former(s) are specified”

P0033 Polymer formed by reaction of C-C unsaturation with non C-C unsaturated functionality

“Includes bismaleimide with diamine, polyene with polythiol, and Nylon 3 from acrylamide. Also includes ethylene with CO”

P0044 Polymer formed by C-C bond formation

“Excludes polymers formed by reaction through C=C or C≡C unsaturation only and polyalkenamers. Includes phenol-terpene resins, polyxylylenes”

P0055 Polymer formed by heterocyclic ring opening

“Includes polypropylene oxide, polycaprolactone, polyethylene imine”

P0066 Polymer formed by (opt. substd.) hydrocarbon ring opening

UF Metathesis polymers

P0077 Polymer formed by cyclisation during polymerisation

P0088 Acrylic polymer

P0099	NT	Polyacrylic acid
P0102	NT	Polyacrylonitrile
P0113	NT	Polymethyl methacrylate
	UF	PMMA
P0124	NT	Acrylonitrile - Butadiene BCP
P0135	NT	Acrylonitrile - Butadiene rubber
	UF	Nitrile rubber
P1876	NT	Acrylonitrile - Styrene - Acrylate CP (96)
	UF	ASA
P0146	NT	Methacrylate - Butadiene - Styrene TCP
	UF	MBS
P0157	NT	Styrene - Acrylonitrile BCP
	UF	SAN
P0168	NT	Ethylene - Acrylic acid BCP
P0179	NT	Ethylene - Methacrylic acid BCP
P0180	NT	Ethylene - Ethyl acrylate BCP
P0191	NT	Acrylonitrile - Butadiene - Styrene TCP
	UF	ABS
P0204	NT	Vinyl chloride - Acrylonitrile BCP
P0215	NT	Vinylidene chloride - Acrylonitrile BCP

P0226 Aldehyde and/or ketone resin (gen)

P0248	NT	Acetal and/or ketal resin
P1887	NT	Polyoxymethylene (96)
		“Includes polyformaldehyde, polytrioxane and copolymers containing minor amounts of polymer former such as ethylene oxide”
P0259	NT	Aminoplast
P0260	NT	Melamine - Formaldehyde resin
P0271	NT	Urea - Formaldehyde resin
P0282	NT	Phenoplast
P0293	NT	Phenol - Formaldehyde resin
P0306	NT	Phenolic - Drying oil resin

		SA	Epoxidised phenolic resin
P0317	NT		Aldehyde/ketone resin, other
P0328	Aliphatic conjugated diene polymers		
P0339	NT		Polybutadiene
P0340	NT		Polychloroprene
		UF	Neoprene
P0351	NT		Styrene - Butadiene BCP
P0362		NT	Styrene - Butadiene rubber
P0373		NT	Styrene - Butadiene block BCP
P0384		NT	Hydrogenated Styrene - Butadiene block BCP
		UF	Styrene - Ethylene - Butene block CP
P0395	NT		Styrene - Isoprene BCP
P0408		NT	Styrene - Isoprene rubber
P0419		NT	Styrene - Isoprene block BCP
P0420		NT	Hydrogenated Styrene - Isoprene block BCP
		UF	Styrene - Ethylene - Propylene block CP
P0124	NT		Acrylonitrile - Butadiene BCP
P0135		NT	Acrylonitrile - Butadiene rubber
		UF	Nitrile rubber"
P0191	NT		Acrylonitrile - Butadiene - Styrene TCP
		UF	ABS
P0146	NT		Methacrylate - Butadiene - Styrene TCP
		UF	MBS
P0431	NT		Isobutylene - Isoprene rubber
		UF	Butyl rubber
P0442	(Methylene) Arylene polymer		
			"Optionally substituted"
		UF	Polyxylylene
		UF	Xylok resin
P8106	NT		Polyfluorenes (04)
P0453	NT		Phenol - Aralkyl resin
			"Includes reaction products of phenol(s) and xylylene derivatives"
P1967	(Bis)benzocyclobutene resins (96)		
P0464	Epoxy resin		
P1898	NT		Bisphenol A type Epoxy resin (96)
			"Use for epoxy resins with optionally ring substituted bisphenol A structure"
P0475		NT	Bisphenol A diglycidyl ether epoxy resin
P1901	NT		Bisphenol F type Epoxy resin (96)
			"Use for epoxy resins with optionally ring substituted bisphenol F structure"
P0486	NT		Cycloaliphatic epoxy resin
P0497	NT		Epoxidised phenolic resin
		UF	Epoxidized phenolic resin
P0500	Fluoro resin		
			"Only used for general reference to Fluoro resins"
		SA	Ethylene - Chlorotrifluoroethylene BCP
		SA	Ethylene - Tetrafluoroethylene BCP
		SA	Polytetrafluoroethylene
		SA	Tetrafluoroethylene - Hexafluoropropylene BCP
		SA	Vinylidene fluoride - Hexafluoropropylene BCP

P0566 Friedel Crafts resin**P0577 Furan resin****P0588 Ionomer****P0599 Natural polymer****P0602 Petroleum resins**

UF Hydrocarbon resin

P0613 Phenol - Cyclopentadiene resin

"Reaction product of Phenol(s) and (Di)cyclopentadiene(s)"

P0624 Phenol - Terpene resin

"Reaction product of Phenol(s) and Terpene(s)"

P1912 Polyalum(in)oxanes (96)

P1923 NT Polymethylalum(in)oxanes (96)

P0635 Polyamide

"Carboxylic amides only

UF Nylon

P1934 NT Saturated aliphatic polyamide (96)

P1945 NT Nylon 4 (96)

P0646 NT Nylon 6

P0657 NT Nylon 8

P0668 NT Nylon 11

P0679 NT Nylon 12

P0680 NT Nylon 4,6

P0691 NT Nylon 6,6

P0704 NT Nylon 6,10

P0715 NT Nylon 6,12

P0726 NT Nylon 6,6-6

P8117 NT Nylon 6/66/6T (04)

"Specific repeat units only, no other repeat units present."

P8128 NT Nylon 6/66/6I (04)

"Specific repeat units only, no other repeat units present."

P8139 NT Nylon 66/6T (04)

"Specific repeat units only, no other repeat units present."

P8140 NT Nylon 66/6I (04)

"Specific repeat units only, no other repeat units present."

P8151 NT Nylon 6I/6T (04)

"Specific repeat units only, no other repeat units present."

P8162 NT MXD6 (04)

"Specific repeat units only, no other repeat units present."

P0737 NT Aramid

P0748 NT Poly m-phenylene isophthalamide

UF Nomex

P0759 NT Poly p-phenylene terephthalamide

UF Kevlar

P0760 NT Polyesteramide

P0771 NT Polyamideimide

P0782 Polyanhydride

P1956 Polyazomethine (96)

"SRU containing -CH=N- in backbone"

P0793 Polybenzimidazole**P0806 Polybenzoxazol****P0817 Polybenzthiazol****P0828 Polycarbodiimide****P0839 Polyester**

"Carboxylic esters only"

P0840	NT	Alkyd resin
		"Includes non-linear polyesters and those involving (non)drying oils"
P0862	NT	Polycarbonate
P0873	NT	Unsaturated polyester
		"Linear polyester containing C=C or C \equiv C unsaturation"
P1978	NT	Saturated polyester (96)
P0851	NT	Polyarylate
P0884	NT	Polyethylene terephthalate
	UF	PET
P8173	NT	Polypropylene terephthalate (04)
	UF	PPT
	UF	Polytrimethylene terephthalate
P0895	NT	Polybutylene terephthalate
	UF	PBT
P0908	NT	Polyethylene terephthalate isophthalate
P1989	NT	Polyethylene naphthalate (96)
		"All isomers"
P1990	NT	Poly 1,4-cyclohexane dimethylene terephthalate (96)
P0919	NT	Polyester polyol
	SA	Polyesterurethane
P0760	NT	Polyesteramide
P0920	NT	Polyesterimide
P0931	NT	Polyesterurethane
P0942	NT	Polycarbonate-urethane
P0953	NT	Polyetherester

P0964 Polyether

P0975	NT	Polyalkylene ether
P8004	NT	Polyethylene glycol (96)
		"-(CH ₂ -CH ₂ -O) _n -"
	UF	Polyethylene oxide
P8015	NT	Polypropylene glycol (96)
		"-(CH-(CH ₃)-CH ₂ -O) _n -"
	UF	Polypropylene oxide
P8026	NT	Polybutylene glycol (96)
		"-(C ₄ H ₈ O) _n -"
P8037	NT	Polybutylene oxide (96)
		"-(CH ₂ -C(C ₂ H ₅)-O) _n -"
P8048	NT	Polytetramethylene glycol (96)
		"-(CH ₂ -CH ₂ -CH ₂ -CH ₂ -O) _n -"
	UF	Polytetrahydrofuran

P0986	NT	Phenoxy resin
P0997	NT	Polyphenylene ether UF Polyphenylene oxide
P0953	NT	Polyetherester
P1003	NT	Polyetherimide
P1014	NT	Polyetherketone UF PEK
P1025	NT	Polyetheretherketone UF PEEK
P1036	NT	Polyether polyol SA Polyetherurethane
P1047	NT	Polyethersulphone UF Polyethersulfone
P1058	NT	Polyetherurethane
P1069	NT	Polyetherurethane from alkylene oxide copolymer

P1070 Polyhydantoin**P1081 Polyimide**

P1092	NT	Polyamic acid
P0771	NT	Polyamideimide
P0920	NT	Polyesterimide
P1003	NT	Polyetherimide

P1105 Polyimine

P1116	NT	Polyalkyleneimine
P1127	NT	Polyaniline "Optionally substituted"

P1138 Polyionene**P1149 Polyketone**

P1014	NT	Polyetherketone UF PEK
P1025	NT	Polyetheretherketone UF PEEK

P1150 Polyolefin

P1161	NT	Polyethylene "Homopolymer of ethylene"
P1172	NT	Low density polyethylene "Homopolymer of ethylene with density 0.918 - 0.932 g/cc" UF LDPE
P1183	NT	Medium density polyethylene "Homopolymer of ethylene with density 0.926 - 0.940 g/cc" UF MDPE
P1194	NT	High density polyethylene "Homopolymer of ethylene with density > 0.940 g/cc" UF HDPE
P1207	NT	High molecular weight high density polyethylene "Homopolymer of ethylene with density 0.941 - 0.965 g/cc and M.W. 200K-500K" UF HMWHDPE
P1218	NT	Ultra high molecular weight polyethylene "Homopolymer of ethylene with M.W. >3M"

		UF	UHMWPE
P1229	NT		Chlorinated polyethylene
P1230	NT		Chlorosulphonated polyethylene
		UF	Chlorosulfonated polyethylene
P1241	NT		Very low density polyethylene
			"Copolymer of ethylene with other olefin(s) of density 0.890 - 0.915 g/cc"
		UF	VLDPE
		UF	Ultra low density polyethylene
		UF	ULDPE
P1252	NT		Linear low density polyethylene
			"Copolymer of ethylene with other olefin(s) of density 0.916 - 0.940 g/cc"
		UF	LLDPE
P0168	NT		Ethylene - Acrylic acid BCP
P1263	NT		Ethylene - Butene-1 BCP
P1274	NT		Ethylene - Carbon monoxide BCP
P0522	NT		Ethylene - Chlorotrifluoroethylene BCP
		SA	Fluoro resin
P0180	NT		Ethylene - Ethyl acrylate BCP
P0179	NT		Ethylene - Methacrylic acid BCP
P1285	NT		Ethylene - Propylene BCP
P1296	NT		Ethylene - Propylene rubber
P1309	NT		Ethylene - Propylene - Diene monomer
		UF	EPDM"
P0533	NT		Ethylene - Tetrafluoroethylene BCP
P1310	NT		Ethylene - Vinyl acetate BCP
		SA	Fluoro resin
P1321	NT		Ethylene - Vinyl acetate - Vinyl alcohol
		UF	Ethylene - Vinyl acetate partially hydrolysed
P1332	NT		Ethylene - Vinyl alcohol
		UF	Ethylene - Vinyl acetate hydrolysed
P1343	NT		Polypropylene
P1354	NT		Propylene - Vinyl chloride BCP
P0431	NT		Isobutylene - Isoprene rubber
		UF	Butyl rubber

P8059 Polyorthoesters (96)

UF Polyorthocarbonates

P1365 Polyoxadiazole**P1376 Polyoxazoline****P1387 Polyoxazolidine****P1398 Polyparabanic acid****P8060 Polyphenylene vinylenes (96)**

"Optionally ring substituted"

P1401 Polyphosphazine

UF Phosphonitrilic polymer

P1412 Polypyrrole

"Optionally substituted"

P1423 Polysilane

“Includes polycarbosilanes”

P1434 Polysilazane**P1445 Polysiloxane**

P1456	NT	Polydimethylsiloxane
		“Optionally end group modified”
P8184	NT	Polymethylvinylsiloxane (04)
		“Optionally end group modified”
P8195	NT	Polymethylphenylsiloxane (04)
		“Optionally end group modified”
P8208	NT	Polyhydrogenmethylsiloxane (04)
		“Optionally end group modified”
P8219	NT	Polysilsesquioxanes (04)
		“Optionally substituted. Optionally end group modified.”

P1467 Polysulphide

	UF	Polysulfide
	UF	Polythioether
P1478	NT	Polyarylene sulphide
	UF	Polyarylene sulfide
	UF	Polyphenylene sulphide

P1489 Polysulphonamide

UF Polysulfonamide

P1490 Polysulphone

	UF	Polysulfone
P1047	NT	Polyethersulphone
	UF	Polyethersulphone

P0511 Polytetrafluoroethylene

UF PTFE
SA Fluoro resin

P8071 Polythioester (96)

“SRU containing -C(S)-O- or -C(O)-S- or -C(S)-S- in backbone”

P1503 Polythiophene

“Optionally substituted”

P1514 Polythiourea**P1525 Polythiourethane****P1536 Polytriazine**

“6-membered ring containing 3 N atoms”

P1547	NT	Polycyanurate
	UF	Cyanurate resin
P1558	NT	Polyisocyanurate

P1569 Polytriazole

“5-membered ring containing 3 N atoms

UF Polyaminotriazole
UF Polytriazoline

P1570 Polyurea

P1581 NT Polyurethaneurea

P1592 Polyurethane

P0931 NT Polyesterurethane
 P0942 NT Polycarbonate-urethane
 P1058 NT Polyetherurethane
 P1069 NT Polyetherurethane from alkylene oxide copolymer
 P1605 NT Polyurethane from HO-contg. polymer from C=C or C \equiv C polymer former P1616
 P1616 NT Polyurethane from N-contg. polyol
 P1627 NT Polyurethane NOT from isocyanate
 P1638 NT Polyurethane from monomeric polyol
 P1649 NT Polyurethane from >1 high M W polyol
 P1581 NT Polyurethaneurea
 P1650 NT Polyurethane, other

P1865 Polyvinyl acetals

P1661 NT Polyvinyl acetal
 P1672 NT Polyvinyl butyral
 P1683 NT Polyvinyl formal
 SA Acetalised polymer [modified polymers]

P8082 Polyvinylamines (96)

P8093 NT Polyvinylamine (96)

P0544 Tetrafluoroethylene - Hexafluoropropylene BCP

SA Fluoro resin

P1694 Vinyl alcohol polymers

P1707 NT Polyvinyl alcohol
 UF PVA
 P1321 NT Ethylene - Vinyl acetate - Vinyl alcohol
 UF Ethylene - Vinyl acetate partially hydrolysed
 P1332 NT Ethylene - Vinyl alcohol
 UF Ethylene - Vinyl acetate hydrolysed
 P1718 NT Vinyl acetate - Vinyl alcohol
 UF Vinyl acetate partially hydrolysed
 P1729 NT Vinyl chloride - Vinyl acetate - Vinyl alcohol
 UF Vinyl chloride - Vinyl acetate partially hydrolysed
 P1730 NT Vinyl alcohol polymer, other
 SA Hydrolysed polymer [modified polymer]
 SA Hydroxy group incorporated polymer [modified polymers]

P1741 Styrenic polymers

P0191 NT Acrylonitrile - Butadiene - Styrene TCP
 UF ABS
 P1876 NT Acrylonitrile - Styrene - Acrylate CP (96)
 UF ASA
 P1763 NT High Impact Polystyrene
 UF HIPS
 P0146 NT Methacrylate - Butadiene - Styrene TCP
 UF MBS
 P1752 NT Polystyrene
 P0157 NT Styrene - Acrylonitrile BCP

		UF	SAN
P0351	NT		Styrene - Butadiene BCP
P0362		NT	Styrene - Butadiene rubber
P0373		NT	Styrene - Butadiene block BCP
P0384		NT	Hydrogenated Styrene - Butadiene block BCP
		UF	Styrene - Ethylene - Butene block CP
P1774	NT		Styrene - Divinyl benzene BCP
P0395	NT		Styrene - Isoprene BCP
P0408		NT	Styrene - Isoprene rubber
P0419		NT	Styrene - Isoprene block BCP
P0420		NT	Hydrogenated Styrene - Isoprene block BCP
		UF	Styrene - Ethylene - Propylene block CP
P1785	NT		Sulphonated Styrene - Divinyl benzene BCP
		UF	Sulfonated Styrene - Divinyl benzene BCP

P1796 Vinyl chloride polymers

P1809	NT		Polyvinyl chloride
		UF	PVC
P1354	NT		Propylene - Vinyl chloride BCP
P0204	NT		Vinyl chloride - Acrylonitrile BCP
P1729	NT		Vinyl chloride - Vinyl acetate - Vinyl alcohol
		UF	Vinyl chloride - Vinyl acetate partially hydrolysed
P1832	NT		Vinyl chloride - Vinyl acetate
P1843	NT		Vinyl chloride - Vinylidene chloride BCP

P0555 Vinylidene fluoride - Hexafluoropropylene BCP

SA Fluoro resin

P1854 Polymer type, other

“Includes ‘bucket chemistry’ products”

Related terms from other facets:

H0260 Polymer from >1 Polymer Type [polymer descriptors]

Natural Polymers

This facet contains all the concepts for Natural Polymers.

These terms are arranged hierarchically in alphabetical order with generic terms represented by Gnnnn codes and Specific Compound Numbers Rnnnnn used for specific compounds.

All the Narrower terms (NT) autopost the more generic term(s). Generic terms which are actually indexed, rather than autoposted, can be searched adding '-R' to the end of the code; thus Cellulose esters which has been indexed should be searched using G3645-R. Searching G3645 will retrieve all references - indexed and autoposted.

The Polymer Type code P0599 Natural Polymer will be autogenerated whenever a Natural Polymer code is indexed from this facet.

The Natural Polymers autogenerate the relevant Chemical Aspects, to enable generic searching to be carried out.

For mixed cellulose ether esters, such as hydroxyethyl cellulose phthalate, use the cellulose ether ester code (G3690) and Chemical Aspects e.g. E19 phthali-.

Natural Polymers

G3601 Bituminous polymers

G3612	NT	Asphalt
		UF Bitumen
R24072	NT	Montan wax
R24071	NT	Pitch

R01868 Lignin

R24088 Lignin sulphonic acid (96)

	UF	Lignin sulfonic acid
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R24038 Lignin sulphonate salts (gen)

	UF	Lignin sulfonate salts (gen)
--	----	------------------------------

R24073 Natural rubber

R24074 Natural rubber isomers

	UF	Balata
	UF	Gutta percha

R24028 Polyhydroxybutyric acid

R24090 Polyhydroxyvaleric acid (96)

G3623 Polysaccharides

R24070	NT	Agar
		UF Agarose
R01866	NT	Alginic acid
R07226	NT	Alginic acid salts (gen)
R11203		NT Calcium alginate
R06725		NT Sodium alginate
R24036	NT	Carrageenan
G3634	NT	Cellulosics
R01852		NT Cellulose
R24078		NT Cotton
R24077		NT Regenerated cellulose
R24075		NT Cellophane
R24076		NT Viscose
		UF Rayon
G3645	NT	Cellulose esters
R01853		NT Cellulose acetate
R17001		NT Cellulose diacetate
R17002		NT Cellulose triacetate
R01854		NT Cellulose acetate butyrate
		UF CAB
R16917		NT Cellulose acetate phthalate (96)
R01855		NT Cellulose acetate propionate (96)
		UF Cellulose acetopropionate
R24042		NT Cellulose butyrate
R24100		NT Cellulose phthalate (04)
R24041		NT Cellulose propionate
R24035		NT Cellulose stearate

G3656	NT	Cellulose inorganic esters
R01861		NT Cellulose nitrate
R24087		NT Cellulose phosphate (96)
G3667	NT	Cellulose ester, other
G3678	NT	Cellulose ethers
R01835	NT	Carboxymethyl cellulose
		UF CMC
R06717	NT	Carboxymethyl cellulose salts (gen)
R07352		NT Sodium carboxymethyl cellulose
R01860	NT	Methyl cellulose
R01858	NT	Ethyl cellulose
R24089	NT	Propyl cellulose (96)
R01865	NT	Ethyl hydroxyethyl cellulose
R16378	NT	Hydroxymethyl cellulose
R01859	NT	Hydroxyethyl cellulose
R03005	NT	Hydroxypropyl cellulose
R06563	NT	Hydroxypropylmethyl cellulose
G3689	NT	Cellulose ether, other
G3690	NT	Cellulose ether ester
R03233	NT	Chitin
R03882	NT	Chitosan
R24069	NT	Galactomannan gum
R03104	NT	Guar gum
R24037	NT	Gum arabic
R03231	NT	Hyaluronic acid (04)
R17032	NT	Pectin
R01863	NT	Starch
R24032		NT Cyclodextrin
R01857		NT Dextran
R03275		NT Dextrin
R16377	NT	Xanthan gum
G3703	NT	Polysaccharide, other

G3714 Proteinaceous polymers

R24039	NT	Albumin
R24040	NT	Casein
R24034	NT	Collagen
R24068	NT	Fibroin
		UF Silk
R24033	NT	Gelatin
G3725	NT	Keratin
		UF Wool
G3736	NT	Proteinaceous polymer, other

R24027 Rosin

		UF Colophony
		UF Dammar
		UF Tree resin
R01314	NT	Abietic acid
R24067	NT	Tall oil

G3747 Terpene resins

G3758 Natural polymer, other**Related terms from other facets:**

- P0599 Natural Polymer [polymer types]
- C282 Catalyst for natural polymer production [catalysts]
- L2402 Natural polymer production [chemical processes]

Modified Polymers

The terms for Modified Polymers are arranged hierarchically in alphabetical order, with codes of the format Mnnnn.

All the Narrower terms (NT) autopost the more generic term(s). Generic terms which are actually indexed, rather than autoposted, can be searched adding '-R' to the end of the code; thus Halogenated polymer which has been indexed, should be searched using M2222-R. Searching M2222 will retrieve all references - indexed and autoposted.

See Also (SA) terms, which relate to concepts in a different facet have the facet indicated in brackets after the term.

A special generic code, M9999, will be present in the online record whenever a Modified Polymer code has been applied. This enables you to search for the presence of a Modified Polymer without specifying the type of modification.

Many of the concepts in this facet correspond with concepts in the Chemical Processes facet. The Modified Polymer terms are used when the product of the process is the important feature, rather than the process itself.

These Modified Polymer terms can be used in conjunction with Polymer Formers, Polymer Types, Polymer Descriptors and/or Chemical Aspects.

Metal is defined as excluding the following:-

Ar, As, B, Br, C, Cl, F, H, He, I, Kr, N, Ne, O, P, S, Se, Si, Te, Xe.

Indexing Conventions:

Brominated epoxy resins (with no further information as to whether the polymer former(s) contain bromine or the epoxy resin is post-brominated) are indexed as Epoxy resin with Br (Chemical Aspect).

Whenever a polymer is reacted with another polymer, each polymer is regarded as both a modified polymer and a modifying agent.

Modified Polymers

M2006 Acetalised polymer

SA Polyvinyl acetals [polymer types]

M2017 Acrylated polymer

“Modified with any acrylic derivative. Used with other modified polymer concepts as applicable”

M2028 Amidated polymer

“Including urea group formed”

M2039 Aminated polymer

M2040 Ammoxidated polymer

M2051 Boron incorporated polymer

“Modified by any process incorporating boron”

M2062 Carboxy group incorporated

M2073 Crosslinked polymer

UF Cured polymer

UF Vulcanised polymer

M2084 Cyclised polymer

“Ring created by bond formation”

M2095 Degraded polymer

M2108 NT Carbonised polymer

UF Pyrolysed polymer

UF Thermally decomposed polymer

M2119 NT Depolymerised polymer

M2120 Dehalogenated polymer

M2131 Dehydrohalogenated polymer

M2142 Doped polymer

SA Metal incorporated polymer

M2153 End group modified polymer

M2164 NT End blocked polymer

M2175 Epoxidised polymer

“Modified by formation or incorporation of epoxy group”

M2186 Esterified polymer

“Polymer modified with carboxylic acid or derivative only”

SA Acrylated polymer

SA Halosulphonated polymer

SA Maleinised polymer

SA Sulphonated polymer

M2200 Etherified polymer

M2211 Haloalkylated polymer

M2222 Halogenated polymer

M2233	NT	Brominated polymer
M2244	NT	Chlorinated polymer
	SA	Chlorinated polyethylene [polymer types]
M2255	NT	Fluorinated polymer
M2266	NT	Iodinated polymer
	SA	Haloalkylated polymer
	SA	Halosulphonated polymer

M2277 Halosulphonated polymer

	UF	Halosulfonated polymer
	UF	Sulphohalogenated polymer
	UF	Sulfohalogenated polymer
M2288	NT	Chlorosulphonated polymer
	SA	Chlorosulphonated polyethylene [polymer types]

M2299 Hydrocarbylated polymer

“Modified by C-C bond formation”

	UF	Alkylated polymer
	UF	Arylated polymer
	SA	Haloalkylated polymer

M2846 Hydroformylated (96)

“Polymer modified by addition of a hydroformyl group (H₂CO)”

M2302 Hydrohalogenated polymer**M2313 Hydrolysed polymer**

	UF	Alcoholised polymer
	UF	Glycolised polymer
	UF	Saponified polymer
	SA	Vinyl alcohol polymers [polymer types]

M2324 Hydroxy group incorporated polymer

	SA	Hydrolysed polymer
	SA	Vinyl alcohol polymers [polymer types]

M2335 Imidated polymer

	SA	Cyclised polymer
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M2346 Isomerised polymer

	UF	Disproportionated polymer
	UF	Rearranged polymer

M2357 Ketalised polymer**M2368 Maleinised polymer**

“Modified with any maleic derivative. Used with other modified polymer concepts as applicable”

M2379 Metal incorporated polymer

“Metal excludes Ar, As, B, Br, C, Cl, F, H, He, I, Kr, N, Ne, O, P, S, Se, Si, Te, Xe”

M2380	NT	Metallated polymer
		“C-metal bond formed”
	SA	Boron incorporated polymer
	SA	Phosphorus incorporated polymer

SA Silicon incorporated polymer

M2391 Modified polymer (gen)

“Used when modification not specified”

M2415 Neutralised polymer

M2426 Nitrated polymer

“Modified by addition of NO₂”

M2437 Oxidised polymer

UF Ozonised polymer

M2448 NT Dehydrogenated polymer

M2459 Oxyalkylated polymer

UF Alkoxyated polymer

M2460 Phosphorus incorporated polymer

“Modified by any process incorporating phosphorus”

M2700 Quaternised polymer

M2711 Reduced polymer

M2722 NT Hydrogenated polymer

M2766 Silanated polymer

“Modified by formation of Si-C bond”

UF Silylated polymer

SA Silicon incorporated polymer

M2777 Silicon incorporated polymer

“Modified by any process incorporating silicon”

SA Silanated polymer

M2788 Sulphated polymer

UF Sulfated polymer

M2799 Sulphonated polymer

UF Sulfonated polymer

M2802 Surface modified polymer

“Modified by chemical process only”

M2813 Unsaturation incorporated polymer

“C-C unsaturation only”

SA Acrylated polymer

SA Maleinised polymer

M2824 Urethanised polymer

UF Carbamylated polymer

M2835 Modified polymer, other

Related terms from other facets:

H0226 Modifying agent [polymer descriptors]

H0157 Atom(s) incorporated in polymer by modification [polymer descriptors]

H0362 End functional polymer (04) [polymer descriptors]

Chemicals

The Chemicals facet contains all those compounds which commonly occur as additives, catalysts and modifying agents for polymers.

The terms are arranged alphabetically, with Specific Compound Numbers Rnnnnn being used for the specific compounds and Gnnnn codes for generic terms.

There are several small hierarchies within this facet, in which the Narrower terms (NT) autopost the more generic term(s). Generic terms which are actually indexed, rather than autoposted, can be searched by adding '-R' to the end of the code; thus Adipic acid esters which have been coded should be searched using G2404-R. Searching G2404 will retrieve all references - indexed and autoposted.

Several of the compounds in this facet can also be found in the Polymer Formers facet. The codes for compounds in this facet can be used for searching polymer formers, preferably in conjunction with the relevant generic or other terms from the Polymer Formers hierarchy.

All of the Specific Compound Numbers and generic codes in this facet autogenerate the relevant Chemical Aspects. This enables very generic searching to be carried out.

For a complete list of autogenerated Chemical Aspects see the Polymer Indexing Reference Manual.

Chemicals

R01314 Abietic acid

SA Rosin [natural polymers]

R00247 Acetic acid

R00840 Acetic anhydride

R00272 Acetone

R00342 Acetonitrile

UF Methyl cyanide

R00675 Acetophenone

UF Phenyl methyl ketone

UF Acetylbenzene

R24047 Acetyl benzoyl peroxide

R08437 Acetyl cyclohexyl sulphonyl peroxide

UF Acetyl cyclohexyl sulfonyl peroxide

R10247 Acetyl peroxide

UF Diacetylperoxide

R10379 Acetyl tributyl citrate

R01047 Acetylacetone

UF Pentanedione, 2,4-

R05000 Acetylacetone peroxide

R01060 Adipic acid

G2404 Adipic acid esters (gen)

“Used when no specific adipate given”

R05115 NT Dibutyl adipate

R05143 NT Dihexyl adipate

R00746 NT Diisooctyl adipate

UF DOA

UF Di(2-ethylhexyl) adipate

R05166 NT Di n-octyl adipate

R05286 NT Octyl n-decyl adipate, n-

G2415 NT Adipic acid ester, other

G2426 Alkyl mercaptans (gen)

“Used when no specific mercaptan given”

G2437 NT Dodecyl mercaptans (gen)

“Used when no specific isomer given”

R00951 NT Dodecyl mercaptan, n-

UF Lauryl mercaptan, n-

UF Lauryl thiol

R14858 NT Dodecyl mercaptan, t-

R05289 NT Octyl mercaptan, n-
G2448 NT Alkyl mercaptan, other

R03167 Aluminium

R01677 Aluminium chloride

R02020 Aluminium hydroxide

UF Alumina trihydrate

R01544 Aluminium oxide

UF Alumina

R01949 Aluminium silicate

UF China clay

UF Clay

UF Kaolin

SA Bentonite

R01432 Aluminium stearate

R01892 Aluminium sulphate

UF Aluminium sulfate

G2459 Amino silanes (gen)

“Used when no specific amino silane given”

R15564 NT Amino propyl trimethoxysilane, gamma- (04)

R03119 NT Aminopropyltriethoxysilane, gamma-

R10366 NT Aminopropyltrimethoxysilane, N-beta-(aminoethyl)-gamma-

G2460 NT Amino silane, other

R24046 Aminoethyl piperidine, N-

R01713 Ammonia

R24066 Ammonium 3,3'-methylenebis(2-naphthalene sulphonate)

UF Ammonium 3,3'-methylenebis(2-naphthalene sulfonate)

R01425 Ammonium acetate

R05417 Ammonium bicarbonate

R01945 Ammonium bromide

R01304 Ammonium carbonate

R01947 Ammonium chloride

R24065 Ammonium dodecylbenzene sulphonate

UF Ammonium dodecylbenzene sulfonate

R01534 Ammonium hydroxide

R06252 Ammonium molybdate

R03252 Ammonium persulphate

UF Ammonium persulfate

R03561 Ammonium polyphosphate

R04218 Ammonium tetrafluoroborate

R00997 Anthracene

R24045 Anthranilamide

R00506 Anthraquinone

G2471 Antimony chlorides (gen)

“Used when no specific antimony chloride given”

R01709 NT Antimony (III) chloride

R04326 NT Antimony(V) chloride

G2482 Antimony oxides (gen)

“Used when no specific antimony oxide given”

R03292 NT Antimony pentoxide

R01527 NT Antimony trioxide

R16211 Asbestos

R00035 Ascorbic acid

G2493 Azelaic acid esters (gen)

“Used when no specific azelaic acid ester given”

R05144 NT Di n-hexyl azelate

R20718 NT Diisooctyl azelate

G2506 NT Azelaic acid ester, other

R08166 Azobis(2-amidinopropane) hydrochloride, 2,2'-

R05026 Azobis(4-cyanovaleric acid), 4,4'-

R05027 Azobis(2,4-dimethylvaleronitrile), 2,2'-

R00426 Azobisisobutyronitrile, 2,2'-

UF Azobis(2-methylpropionitrile), 2,2,-

UF AZBN

UF AIBN

R05028 Azobis(4-methoxy-2,4-dimethylvaleronitrile), 2,2'-

R01055 Azodicarboxamide

G2517 Barium-cadmium systems

G2528 Barium-cadmium-zinc systems

R01311 Barium carbonate

R04650 Barium ferrite

R02001 Barium hydroxide

R10608 Barium metaborate

R05032 Barium stearate

R01739 Barium sulphate

UF Barium sulfate

UF Barytes

G2539 Barium-zinc systems

R03126 Bentonite

R00092 Benzamide

R05035 Benzanthraquinone

R00306 Benzene

R00667 Benzene sulphonic acid

UF Benzene sulfonic acid

R05036 Benzene sulphonyl hydrazide

UF Benzene sulfonyl hydrazide

R05037 Benzene sulphonyl semicarbazide

UF Benzene sulfonyl semicarbazide

R01108 Benzil

R05038 Benzil dimethyl ketal

UF Dimethoxy-2-phenylacetophenone, 2,2-

R00258 Benzoic acid

R00993 Benzoin

R03351 Benzoin ethyl ether

R05040 Benzoin isobutyl ether

R05041 Benzoin isopropyl ether

R05042 Benzoin methyl ether

R00994 Benzophenone

R05043 Benzophenone tetracarboxylic dianhydride, 3,3',4,4'-

R00794 Benzoquinone, 4-

UF Quinone

R05044 Benzothiazole-2-sulphenamide

G2540 Benzotriazoles (gen)

"Used when no specific benzotriazole given"

R00615 NT Benzotriazole

G2551 NT Benzotriazole, 2-(2'-hydroxy-alkylphenyl)

R05118 NT Chloro-benzotriazole, 2-(3',5'di t-butyl-2'-hydroxyphenyl)-5-

R05230 NT Hydroxyphenyl benzotriazole, 2-

G2562 NT Benzotriazole, other

R00676 Benzoyl chloride

R00610 Benzoyl peroxide

R00714 Benzyl alcohol

R06279 Benzyl dimethyl ketal
R12472 Bis(t-butylcyclohexyl)peroxy dicarbonate
R05047 Bis(t-butylperoxy)butane, 2,2-
R05048 Bis(t-butylperoxy)cyclohexane, 1,1-
R03960 Bis(t-butylperoxy)diisopropylbenzene, 1,3-
R05050 Bis(t-butylperoxy)3,3,5-trimethylcyclohexane, 1,1-
R05051 Bis(chloroethyl)chloroethyl phosphonate
R05052 Bis(2,4-di t-butylphenyl)pentaerythritol phosphite
R05054 Bis(2-dimethylaminoethyl)ether
G2573 Bis(dimethylbenzyl) diphenylamine
R05161 Bis(hydroperoxy)-2,5-dimethylhexane, 2,5-
R05056 Bis(2-hydroxyethyl)-4-toluidine, N,N-
 UF Toluene diethanolamine, p-
R05180 Bis(2-methylphenyl)guanidine
R00470 Bisphenol A
 UF Bis(4-hydroxyphenyl)propane, 2,2-
R01894 Boric acid
R01668 Boron
R06458 Boron carbide
R01893 Boron nitride
R01699 Boron trifluoride
R00876 Boron trifluoride etherate
G2584 Brass
R01735 Bromine
G3463 Bronze
R00804 Butane
G2595 Butyl acetates (gen)
 R01056 NT Butyl acetate, n-
G3496 Butyl alcohol (gen) (96)
 UF Butanol (gen)
 R00304 NT Butyl alcohol, n-
 UF Butanol, n-
 R00436 NT Butyl alcohol, s-
 UF Butanol, s-
 R00373 NT Butyl alcohol, t-

UF Butanol, t-

R09579 Butyl anthraquinone, 2-t-

R05062 Butyl azo-2,4-dimethyl valeronitrile, 2-t-

R05063 Butylbenzothiazole sulphenamide, N-t-

R05065 Butyl-4,4'-bis(t-butylperoxy)valerate, n-

R04075 Butyl catechol, 4-t-

UF Butyl-1,2-dihydroxybenzene, 4-t-

R00939 Butyl cellosolve

UF Butoxyethanol

R05067 Butyl cumyl peroxide, t-

R05069 Butyl ethyl magnesium, n-

R05070 Butyl glycidyl ether

R00389 Butyl hydroperoxide, t-

R08967 Butylidene-bis(t-butyl cresol), 4,4'-

UF Butylidene-bis(3-methyl-6-t-butylphenol), 4,4-

G2608 Butyl lithium (gen)

"Used when no specific isomer given"

R00882 NT Butyl lithium, n-

R08927 NT Butyl lithium, s-

R09211 NT Butyl lithium, t-

G2619 Butyl magnesium halide

R22582 Butyl methyl dimethoxysilane, t-

R24052 Butyl oleate, n-

R05074 Butyl peroxyacetate, t-

R01412 Butyl peroxybenzoate, t-

R05075 Butyl peroxy(2-ethylhexanoate), t-

R05076 Butyl peroxyisobutyrate, t-

R05077 Butyl peroxy maleic acid, t-

UF Butyl peroxy maleate, t-

R15444 Butyl peroxyneodecanoate, t-

R18682 Butyl peroxyoctoate, t-

R05079 Butyl peroxy pivalate, t-

R00668 Butyl phenol, 4-t-

R05081 Butyl stearate

R05082 Cadmium stearate

R01505 Cadmium sulphide

G2620 Cadmium-zinc systems

R00233 Calcium acetate

R01278 Calcium carbonate

UF Limestone

SA Chalk

R01895 Calcium chloride

R01502 Calcium hydroxide

R01503 Calcium oxide

G3509 Calcium phosphate (gen) (96)

R01748 NT Calcium phosphate dibasic

R01755 NT Calcium phosphate monobasic

R01757 NT Calcium phosphate tribasic

R01550 Calcium silicate

SA Wollastonite

R01563 Calcium stearate

R01767 Calcium sulphate

SA Gypsum

G2631 Calcium-zinc systems

R00401 Camphor

R03348 Camphorquinone

R00776 Caprolactam

R01669 Carbon

SA Carbon black

SA Carbon fibre

SA Graphite

R05085 Carbon black

UF Acetylene black

UF Activated charcoal

SA Carbon

SA Graphite

R05086 Carbon fibre

SA Graphite

R00101 Carbon tetrachloride

G2642 Carnauba wax

G3510 Ceramics (96)

“Used only for general references to ceramics”

R05089 Ceric ammonium nitrate

G3452 Chalk

SA Calcium carbonate

R00968 Chlorendic acid

R00967 Chlorendic anhydride

G2653 Chlorinated paraffin

R01781 Chlorine

G2664 Chloroanthraquinone

“Mono substituted; all isomers”

R00864 Chlorobenzene

R00366 Chlorodifluoromethane

UF Freon 22

R00273 Chloroform

R00626 Chlorophenol, 2-

R00848 Chlorophenol, 3-

R00791 Chlorophenol, 4-

R01998 Chloroplatinic acid

UF Platinic chloride

R05093 Chloropropyl trimethoxysilane, gamma-

R05094 Chlorothioxanthone, 2-

R00377 Chlorotrifluoromethane

R13440 Chromium (II) acetylacetonate

G2675 Chromium chlorides (gen)

“Used when no specific chromium chloride given”

R10690 NT Chromium (II) chloride

R01883 NT Chromium (III) chloride

G2686 Chromium oxides (gen)

R01933 NT Chromium (III) oxide

R00419 Citric acid

UF Hydroxy-3,4-dicarboxy-n-butyric acid, 3-

G2697 Cobalt acetates (gen)

“Used when no specific cobalt acetate given”

R04048 NT Cobalt (II) acetate

R01645 NT Cobalt (III) acetate

R05096 Cobalt (II) acetylacetonate

G2700 Cobalt chlorides (gen)

“Used when no specific cobalt chloride given”

R01702 NT Cobalt (II) chloride
R12677 NT Cobalt (III) chloride

R07251 Cobalt naphthenate**R12821 Cobalt (II) octanoate****R05099 Copper****G2711 Copper acetates (gen)**

“Used when no specific copper acetate given”

R12128 NT Copper (I) acetate
R01626 NT Copper (II) acetate

G2722 Copper carbonates (gen)

R01682 NT Copper (II) carbonate

G2733 Copper chlorides (gen)

“Used when no specific copper chloride given”

R03311 NT Copper (I) chloride
R01547 NT Copper (II) chloride

G2744 Copper naphthenates (gen)

R04224 NT Copper (II) naphthenate

G2755 Copper oxides (gen)

R03269 NT Copper (I) oxide

R00846 Cresol, 3-**R00474 Cumene hydroperoxide**

UF Isopropylbenzene hydroperoxide

R00913 Cyclohexane**R00866 Cyclohexanol****R00867 Cyclohexanone****R01950 Cyclohexanone peroxide****R00865 Cyclohexylamine****R00618 Cyclohexyl-benzthiazol-2-yl sulphenamide, N-**

UF CBS

R05104 Cyclohexylthiophthalimide, N-**R01191 Cyclopentane (04)****R05321 Dawsonite**

UF Sodium aluminium hydroxycarbonate

R05105 Decabromodiphenyl**R05106 Decabromodiphenyl ether**

UF Decabromodiphenyl oxide

R01063 Decane, n-**R05107 Decanoyl peroxide**

UF Caproyl peroxide

R05108 Diacetyl

UF Dimethyl glyoxal

R00905 Diaminobutane, 1,4-

UF Butane diamine, 1,4-

UF Tetramethylene diamine

G1718 Diaminodiphenyl methanes (gen)

"Used when no specific isomer given"

R00737 NT Diaminodiphenyl methane, 4,4'-
UF Methylene dianiline, 4,4'-

G1729 NT Diaminodiphenyl methane, other

G1741 Diaminodiphenyl sulphones (gen)

"Used when no specific isomer given"

UF Diaminodiphenyl sulfones (gen)

R00472 NT Diaminodiphenyl sulphone, 4,4'-

UF Bis(4-aminophenyl)sulphone

G1752 NT Diaminodiphenyl sulphone, other

G2766 Diatomaceous earth

UF Diatomite

UF Kieselguhr

R04358 Diazabicyclo(5.4.0) undec-7-ene, 1,8-**R01005 Dibenzothiazyl disulphide****R01005 Dibenzothiazyl disulphide**

UF Dibenzothiazyl disulfide

UF Mercaptobenzthiazyl ether

R04425 Dibenzylidene sorbitol**R00944 Di n-butylamine****R05116 Di t-butylhydroquinone, 2,5-****R05117 Di t-butyl-4-hydroxybenzoic acid, 3,5-****R05119 Dibutyl magnesium****R05120 Di n-butyl maleate****R01090 Di t-butyl-4-methyl phenol, 2,6-****R00899 Di t-butyl peroxide****R01091 Di t-butylphenol, 2,6-****R05124 Dibutyl tin diacetate****R08802 Dibutyl tin diisooctylthioglycolate**

R00415 Dibutyl tin dilaurate

R03148 Dibutyl tin dioctoate

R06446 Dibutyl tin maleate

G2777 Dibutyl tin mercaptide

R24053 Di n-butyl tin mercaptopropionate

R05130 Dibutyl tin oxide

R24056 Di n-butyl tin thioglycolate

R05132 Dichlorobenzoyl peroxide, 2,4-

R00376 Dichlorodifluoromethane

R00811 Dichloroethane, 1,2-
UF Ethylene dichloride

R00364 Dichlorofluoromethane

R00345 Dichloromethane
UF Methylene chloride

R00399 Dichlorotetrafluoroethane, 1,2-

R05133 Dicinnamylidene hexane diamine

R00476 Dicumyl peroxide

R01264 Dicyanodiamide

R05136 Diethanolamine stearate

R05259 Diethanol methylamine, N,N-

R05137 Diethoxyacetophenone

R00639 Diethyl aluminium chloride

R00890 Diethyl amine

R05138 Diethylamine oleate

R05139 Diethylaminopropylamine

R00587 Diethyl aniline

R21644 Diethyl carbonate

R01162 Diethyl dithiocarbamic acid

R05140 Diethylene glycol dibenzoate

R01595 Diethylene glycol dimethacrylate
UF Diglycol dimethacrylate

R00945 Diethylene glycol dimethyl ether

R12254 Diethylene glycol monomethyl ether

R00928 Diethylene triamine

R00705 Diethyl ethanolamine, N,N-

R05141 Diethyl magnesium

R05142 Diethyl zinc

G2788 Dihydrocarbyl phosphites (gen)

“Used when no specific dihydrocarbyl phosphite given”

R05122 NT Dibutyl phosphite

R05173 NT Diphenyl phosphite

G2799 NT Dihydrocarbyl phosphite, other

G3485 Dihydroxybenzophenones (gen)

“Used when no specific dihydroxybenzophenone given”

R05147 NT Dihydroxybenzophenone, 2,4-

R05149 NT Dihydroxy-4-methoxybenzophenone, 2,2'-

G2802 NT Dihydroxybenzophenone, other

R24064 Diisobutyl aluminium chloride

R24060 Diisobutyl aluminium hydride

R24085 Diisooctyl peroxydicarbonate (96)

UF Di 2-ethylhexyl peroxydicarbonate

R05153 Diisopropyl peroxydicarbonate

R01039 Dilauryl 3,3'-thiodipropionate

R24086 Dimethoxy acetophenone (96)

R01084 Dimethyl acetamide, N,N-

R01067 Dimethyl amine

R19266 Dimethyl aminomethyl phenol

R00874 Dimethylaminopropylamine

R05163 Dimethylaminotoluene, N,N-

R01020 Dimethyl aniline, N,N-

R05155 Dimethylbenzylamine, N,N-

R05156 Dimethyl-2,5-bis(benzoylperoxy)hexane, 2,5-

UF Bis(benzoylperoxy)hexane-2,5-dimethyl, 2,5-

R05157 Dimethyl-2,5-bis(t-butylperoxy)hex-3-yne, 2,5-

UF Bis(t-butylperoxy)hex-3-yne, 2,5-dimethyl, 2,5-

R07250 Dimethyl carbonate

R05158 Dimethyl cyclohexylamine, N,N-

R03551 Dimethyl-2,5-di-(t-butylperoxy)hexane, 2,5-

UF Bis(t-butylperoxy)hexane-2,5-dimethyl, 2,5-

R05160 Dimethyl-N,N'-dinitrosoterephthalamide, N,N'-

R00834 Dimethylethanolamine, N,N-

R00278 Dimethyl formamide

UF DMF

R05162 Dimethyl imidazole

R01555 Dimethyl isophthalate

R00417 Dimethyl sulphate

UF Dimethyl sulfate

R00274 Dimethyl sulphoxide

UF Dimethyl sulfoxide

UF DMSO

R01002 Dimethyl terephthalate

R04321 Di-2,2'-naphthyl-1,4-phenylene diamine, N,N'-

R00732 Dinitrosopentamethylene tetramine, N,N'-

R05167 Dioctyl maleate

R05169 Dioctyl sulphosuccinic acid

UF Dioctyl sulfosuccinic acid

R05170 Dioctyl tin dilaurate

R01057 Dioxane, 1,4-

R05171 Dipentamethylenethiuram tetrasulphide

UF Dipentamethylenethiuram tetrasulfide

R06918 Diphenyl carbonate

R05172 Diphenyl disulphide

UF Diphenyl disulfide

R00739 Diphenyl ether

R00740 Diphenyl guanidine

R00322 Diphenyl-4-phenylene diamine, N,N'-

R05175 Diphenyl sulphide

R06943 Diphenyl sulphone

R00741 Diphenyl thiourea, sym

R05176 Dipropylene glycol dibenzoate

R12182 Dipropylene glycol monomethyl ether

R05177 Distearyl-pentaerythritol diphosphite

R05178 Distearylthiodipropionate**R05183 Dodecenyl succinic anhydride****R02057 Dodecylbenzenesulphonic acid**

- UF Dodecylbenzenesulfonic acid
- UF Laurylbenzene sulfonic acid
- UF Laurylbenzene sulphonic acid

R01174 Dodecyl sulphuric acid, n-

- UF Dodecyl sulfuric acid, n-
- UF Lauryl sulfuric acid
- UF Lauryl sulphuric acid

R05184 Dolomite

- UF Calcium magnesium carbonate

G2222 Epoxidised vegetable oil

- UF Epoxidized vegetable oil
- UF Epoxidised drying oil
- UF Epoxidised non-drying oil
- G2233 NT Epoxidised castor oil
- G2244 NT Epoxidised linseed oil
- G2255 NT Epoxidised soybean oil

G2813 Epoxy silanes (gen)

“Used when no specific epoxy silane given”

- R05188 NT Ethyl trimethoxy silane, beta-(3,4-epoxycyclohexyl)
- R05221 NT Glycidoxypropyl triethoxysilane, gamma-
- R05222 NT Glycidoxypropyl trimethoxysilane, 3-
- G2824 NT Epoxy silane, other

R05190 Erucamide**R00245 Ethanol**

- UF Ethyl alcohol

R00204 Ether

- UF Ethyl ether

G2835 Ethoxylated alkyl phenols (gen)

- R16392 NT Ethoxylated nonyl phenols
- R24063 NT Ethoxylated octyl phenols
- UF Polyoxyethylene octyl phenol
- G2846 NT Ethoxylated alkyl phenol, other

R01135 Ethyl acetate**R01381 Ethyl aluminium dichloride****R05194 Ethyl aluminium sesquichloride****R05195 Ethyl anisate****R03172 Ethylanthraquinone, 2-****R00707 Ethylbenzene**

R00603 Ethyl benzoate
R03554 Ethyl-3,3-bis(t-butylperoxy)butyrate
R05198 Ethylene bisstearamide
R00819 Ethylene diamine
R00195 Ethylene diamine tetraacetic acid
 UF EDTA
R00933 Ethylene glycol diacetate
R01592 Ethylene glycol diacrylate
 UF Glycol diacrylate
R00643 Ethylene thiourea
 UF Imidazolidinethione, 2-
R00765 Ethylhexanol, 2-
R05202 Ethyl imidazole, 2-
R24018 Ethyl imidazoline, 2-
G2857 Ethyl magnesium halide
R05205 Ethyl-4-methylimidazole, 2-
R05206 Ethyl morpholine, N-
G2868 Ethyl toluate
R05208 Ethyl toluene sulphonamide, N-
 UF Ethyl toluene sulfonamide, N-
G2879 Feldspar
 UF Potassium aluminosilicate
R00001 Formaldehyde
R01169 Formaldehyde sulphonylic acid
 UF Formaldehyde sulphonylic acid
 UF Rongalit
R00246 Formic acid
G4160 Fullerenes (04)
 "Optionally substituted."
 UF Nanotubes
 UF Buckyballs
R00902 Fumaric acid
R12837 Germanium (II) oxide
G2880 Glass
 SA Glass fibre
G2891 Glass fibre

- R09054 Glyceryl-1,3-diacetate**
UF Diacetin
- R03652 Glyceryl-1,3-distearate**
- R12505 Glyceryl-1-monooleate**
- R03191 Glyceryl-1-monostearate**
UF Monostearin
- R00744 Glyceryl triacetate**
UF Triacetin
- R05219 Glyceryl tribenzoate**
- R05220 Glyceryl tristearate**
UF Tristearin
- R00823 Glyoxal**
- R03080 Gold**
- R01778 Graphite**
- R03122 Gypsum**
UF Calcium sulfate hemihydrate
UF Calcium sulphate hemihydrate
- R24101 Hafnium dicyclopentadienyl dichloride (04)**
- R01145 Heptane, n-**
- R05223 Hexabromobenzene**
- R04056 Hexabromocyclododecane**
- R00414 Hexachlorocyclopentadiene**
- R00515 Hexahydrophthalic anhydride**
UF Cyclohexane dicarboxylic anhydride
- R01455 Hexamethylene diisocyanate**
UF HMI
- R00727 Hexamethylene tetramine**
UF Hexamine
UF Urotropin
- R00904 Hexane, n-**
- R01062 Hexane diamine, 1,6-**
UF Hexamethylene diamine
- R00926 Hexanol**
- R01208 Hydrazine**
- R01532 Hydrogen**
- R01704 Hydrogen chloride**

R01732 Hydrogen peroxide

R01041 Hydroquinone

R05274 Hydroquinone t-butyl ether

UF Butoxyphenol, 4-

R01173 Hydroquinone methyl ether

UF Guaiacol, 4-

R06086 Hydrotalcite

UF Aluminium magnesium hydroxide carbonate

R00253 Hydroxybenzamide, 2-

UF Salicylamide

R24102 Hydroxy cyclohexyl phenyl ketone (04)

R06722 Hydroxypropyl methyl ether, 2-

R01193 Imidazole

R03036 Iron

R05231 Iron (II) acetylacetonate

G2904 Iron chloride (gen)

"Used when no specific iron chloride given"

R01939 NT Iron (II) chloride

R04007 NT Iron (III) chloride

G2915 Iron oxides (gen)

R03239 NT Iron (III) oxide

R04232 NT Iron oxide (Fe₃O₄)

G2926 Iron sulphate (gen)

"Used when no specific iron sulphate given"

UF Iron sulfate (gen)

R01729 NT Iron (II) sulphate

R03295 NT Iron (III) sulphate

R00355 Isobutane

R00431 Isobutanol

R03420 Isobutyl aluminium dichloride

R05232 Isonicotinamide

R01342 Isooctane

R00428 Isopentane (96)

R00425 Isophorone

UF Trimethyl-2-cyclohexone, 3,5,5-

R01624 Isophorone diisocyanate

UF Trimethyl-1-isocyanatomethyl-5-isocyanatocyclohexane, 1,3,3-

R01023 Isophthalic acid

UF Benzene dicarboxylic acid, 1,3-

R00271 Isopropanol

UF Isopropyl alcohol

R00736 Isopropyl-N'-phenyl-4-phenylenediamine, N-**R01147 Lauric acid**

UF Dodecanoic acid, n-

R05235 Lauroyl peroxide**R00950 Lauryl alcohol****G2937 Lead acetate (gen)**

"Used when no specific lead acetate given"

R01982 NT Lead (II) acetate

R16194 NT Lead (IV) acetate

R05236 Lead (II) carbonate (basic)**R05237 Lead (II) chromate****R06560 Lead molybdate****R10803 Lead (II) naphthenate****R05239 Lead (II) octanoate****G2948 Lead oxides (gen)****R05240 Lead (II) phosphite (dibasic)****R05241 Lead (II) phthalate****R03535 Lead (II) silicate****R05242 Lead (II) stearate****R01676 Lead (II) sulphate**

UF Lead (II) sulfate

R01833 Lecithin**R01994 Lithium aluminium hydride****R06211 Lithium aluminium silicate****R01679 Lithium chloride****R01513 Lithium hydroxide****R05246 Lithium stearate****R05247 Magnesium****R04953 Magnesium acetate****G2959 Magnesium alkoxide**

R01359 Magnesium carbonate

R01801 Magnesium chloride

R05249 Magnesium hydride

R01509 Magnesium hydroxide

R01510 Magnesium oxide

UF Magnesia

R01541 Magnesium silicate

SA Talc

R01376 Magnesium stearate

R01680 Magnesium sulphate

UF Magnesium sulfate

R00901 Maleic acid

R00843 Maleic anhydride

R05250 Malondiamide

R01433 Manganese (II) acetate

R01535 Manganese (II) naphthenate

R05251 Manganese (II) octanoate

UF Manganese (II) octoate

R06360 Manganese (II) oxide

R00859 Melamine

UF Triamino-s-triazine, 2,4,6-

R08152 Melamine cyanurate (96)

R05252 Menthane hydroperoxide

R01388 Mercaptobenzimidazole, 2-

UF Benzimidazole-2-thiol

R01167 Mercaptobenzothiazole, 2-

UF MBT

R00201 Mercaptoethanol

G2960 Mercapto silanes (gen)

“Used when no specific mercapto silane given”

R05254 NT Mercaptopropyltrimethoxysilane, 3-

G2971 NT Mercapto silane, other

R01565 Mercury (II) acetate

G2982 Methacrylato silanes (gen)

“Used when no specific methacrylato silane given”

R05257 NT Methacryloxypropyl trimethoxysilane, 3-

G2993 NT Methacrylato silane, other

R00380 Methanesulphonic acid
UF Methanesulfonic acid

R00270 Methanol

R05258 Methylbenzoin, alpha-

R00888 Methyl cellosolve
UF Ethylene glycol monomethyl ether
UF Methoxyethanol, 2-

R24043 Methylcyclohexylamine, 4-

R05260 Methyl-4-(dimethylaminoethyl)piperazine, 1-

R00992 Methylene bis(6-t-butyl-4-cresol), 2,2'-

R05261 Methylene bis(4-ethyl-6-t-butyl phenol), 2,2'-

R05262 Methylene bis-6-(1-methylcyclohexyl)-4-cresol, 2,2'-

R05323 Methylene bis(2-naphthalene sodium sulphonate), 3,3'-
UF Methylene bis(2-naphthalene sodium sulfonate), 3,3'-

R05164 Methylene bis(2-naphthalene sulphonic acid), 3,3'-
UF Methylene bis(2-naphthalene sulfonic acid), 3,3'-

R00437 Methyl ethyl ketone
UF MEK

R13049 Methyl ethyl ketone oxime

R01536 Methyl ethyl ketone peroxide

R00826 Methyl formate

R05362 Methylhydroquinone
UF Toluhydroquinone

R05263 Methyl imidazole, 2-

R00836 Methyl isobutyl ketone
UF MIBK

R05264 Methyl isobutyl ketone peroxide

G3009 Methyl magnesium halide

R05266 Methylmorpholine, N-

G0782 Methyl nadic anhydride
"All isomers"

R05268 Methyl-2-pyrrolidone, N-
UF NMP

G0771 Methyl tetrahydrophthalic anhydride
"All isomers"

R05270 Methyl toluate, 3-

R00384 Methyltrichlorosilane

G3010 Mica

R05053 Michler's ketone

UF Bis(dimethylamino)benzophenone, 4,4'-

G3521 Mineral oil (gen) (96)

"Only used for general references to mineral oil"

R07699 Molybdenum (IV) oxide

R07035 Molybdenum (IV) sulphide

UF Molybdenum (IV) sulfide

G3021 Monohydroxy benzophenones (gen)

"Used when no specific monohydroxy benzophenone given"

R05226 NT Hydroxy-4-dodecyloxy benzophenone, 2-

R05227 NT Hydroxy-2-methoxy benzophenone, 2-

R05228 NT Hydroxy-4-methoxy benzophenone, 2-

R05229 NT Hydroxy-4-n-octyloxy benzophenone, 2-

G3032 NT Monohydroxy benzophenone, other

R16529 Montmorillonite

R05179 Morpholine disulphide

UF Morpholine disulfide

R01356 Myristic acid

R01094 Nadic anhydride

UF Carbic anhydride

R00578 Naphthalene

R05277 Naphthalene-1-acetamide, 2-

G1901 Naphthalene diisocyanates (gen)

R12045 NT Naphthalene diisocyanate, 1,5-

R05280 Naphthalene sulphonyl chloride

UF Naphthalene sulfonyl chloride

R01537 Naphthenic acid

R01110 Naphthol, 2-

R01095 Naphthoquinone, 1,4-

G3043 Nickel bis n-octyl phenyl sulphide

UF Nickel bis n-octyl phenyl sulfide

R05282 Nickel dibutyldithiocarbamate

R00678 Nicotinamide

R01724 Nitric acid

- R00679 Nitrobenzene**
- R01738 Nitrogen (96)**
- R00369 Nitromethane**
- R05283 Nitrosodiphenyl amine, N-**
- G3532 Nonyl phenol (gen) (96)**
"Includes all isomers"
- R03140 Octabromodiphenyl ether**
UF Octabromodiphenyl oxide
- R05285 Octadecyl 3-(3',5'-di-t-butyl-4'-hydroxyphenyl) propionate**
UF Stearyl 3-(3',5'-di-t-butyl-4'-hydroxyphenyl)propionate
- R08433 Octane**
- R01061 Octanoic acid, n-**
- G4171 Octanols (04)**
R00765 NT Ethylhexanol, 2-
- R05290 Oleamide**
- R00954 Oleic acid**
- R01152 Oxalic acid**
- R05292 Oxybis(benzene sulphonyl hydrazide), 4,4'-**
UF Oxybis(benzene sulfonyl hydrazide), 4,4'-
- R05293 Oxydiethylenebenzothiazole sulphenamide, N-**
UF Oxydiethylenebenzothiazole sulfenamide, N-
UF OBS
- R01887 Ozone**
- R05294 Palladium (II) acetate**
- G3474 Paraffin wax**
- R05296 Pentabromochlorocyclohexane**
- G3076 Pentabromodiphenyl ether**
- R05298 Pentabromoethyl benzene**
- R00972 Pentaerythritol**
- R05422 Pentaerythritol phosphate**
- G3087 Pentaerythritol stearates (gen)**
R05424 NT Pentaerythritol tetrastearate
- R05299 Pentaerythritol tetrakis(thioglycolate)**
- R00879 Pentane, n-**

G3098 Perlite**R05301 Phenanthraquinone****R00868 Phenol****R00595 Phenothiazine****R00624 Phenylene diamine, 2-****R00850 Phenylene diamine, 3-****R00793 Phenylene diamine, 4-****R05302 Phenylimidazole, 2-****R05428 Phenyl indole, N-****R00568 Phenyl-1-naphthylamine, N-****R05303 Phenyl salicylate****R05304 Phenyltetrazole, 5-****G3101 Phosphonium compounds (gen)**

“Used when no specific phosphonium compound given”

R05209	NT	Ethyl triphenyl phosphonium acid acetate
R05210	NT	Ethyl triphenyl phosphonium iodide
R05271	NT	Methyl triphenyl phosphonium bromide
R05338	NT	Tetrabutyl phosphonium hydroxide
G3112	NT	Phosphonium compound, other

R01711 Phosphoric acid**R01734 Phosphorus****G3123 Phthalic acid esters (gen)**

“Used when no specific phthalic acid ester given”

R05064	NT	Butyl benzyl phthalate
R05068	NT	Butyl cyclohexyl phthalate
R21696	NT	Butyl phthalyl n-butyl glycolate, n-
R01098	NT	Diallyl phthalate, 1,2-
R05113	NT	Dibutoxyethyl phthalate
R00508	NT	Dibutyl phthalate
R04926	NT	Dicyclohexyl phthalate
R20034	NT	Didecyl phthalate
R00507	NT	Diethyl phthalate
R05145	NT	Dihexyl phthalate
R24044	NT	Diisobutyl phthalate
R09416	NT	Diisodecyl phthalate
R11175	NT	Diisononyl phthalate
R00981	NT	Diisooctyl phthalate
	UF	DOP
	UF	Bis(2-ethylhexyl) phthalate
G3134	NT	Di(methylcyclohexyl) phthalate
R01097	NT	Dimethyl phthalate
R00509	NT	Dinonyl phthalate

R00982 NT Di n-octyl phthalate
R05174 NT Diphenyl phthalate
R05181 NT Ditridecyl phthalate
R05182 NT Diundecyl phthalate
R05200 NT Isooctyl benzyl phthalate
UF Ethylhexyl benzyl phthalate, 2-
R05287 NT Octyl n-decyl phthalate, n-
G3145 NT Phthalic acid ester, other

R00554 Phthalic acid

UF Benzene dicarboxylic acid, 1,2-

R00517 Phthalic anhydride**R00915 Piperazine****R01844 Polyoxyethyleneglycol lauryl ether****R24059 Polyoxyethylene sorbitan monolaurate**

UF Polysorbate 20

R24080 Polyoxyethylene sorbitan monooleate

UF Polysorbate 80

R05307 Polyoxyethylene sorbitan monopalmitate

UF Tween 40

R24061 Polyoxyethylene sorbitan monostearate

UF Polysorbate 60

R13366 Polyoxyethylene sorbitan trioleate**R24062 Polyoxyethylene sorbitan tristearate****R01080 Potassium acetate****R01749 Potassium bromate****R01391 Potassium carbonate****R01815 Potassium fluoride****R01512 Potassium hydroxide****R05310 Potassium oleate****R01730 Potassium permanganate****R01737 Potassium persulphate**

UF Potassium persulfate

R05311 Potassium titanate**R00335 Propane****R00302 Propanol, n-**

UF Propyl alcohol

R01043 Propionaldehyde

R08574 Propylene glycol monomethyl ether acetate

R00916 Pyridine

R00539 Pyrogallol

UF Trihydroxybenzene, 1,2,3-

R00556 Pyromellitic dianhydride G3156

G3156 Quartz

UF Sand

SA Silicon dioxide

R05313 Resorcinol monobenzoate

R00924 Sebacic acid

G3167 Sebacic acid esters (gen)

“Used when no specific sebacic acid ester given”

R05057 NT Bis(2,2,6,6-tetramethyl-4-piperidiny)sebacate

R05114 NT Dibutoxyethyl sebacate

R04168 NT Di n-butyl sebacate

R01033 NT Diisooctyl sebacate

UF DOS

UF Di(2-ethylhexyl) sebacate

R05168 NT Di n-octyl sebacate

G3178 NT Sebacic acid ester, other

R01542 Silicic acid

R01666 Silicon

R01247 Silicon carbide

R01694 Silicon dioxide

UF Silica

SA Quartz

R03124 Silicon nitride

R05318 Silicon tetrachloride

R05319 Silver

R01081 Sodium acetate

R01333 Sodium benzoate

R01151 Sodium bicarbonate

R01695 Sodium bisulphite

UF Sodium bisulfite

UF Sodium hydrogensulphite

UF Sodium hydrogensulfite

R01997 Sodium borohydride

R01287 Sodium carbonate

R01706 Sodium chloride

R05322 Sodium diethyl dithiocarbamate

R05324 Sodium dioctyl sulphosuccinate

UF Sodium dioctyl sulfosuccinate

R05325 Sodium 4-dodecylbenzene sulphonate

UF Sodium 4-dodecylbenzene sulfonate

R08974 Sodium formaldehydesulphoxylate

UF Sodium formaldehydesulfoxylate

R01766 Sodium hydrosulphite

UF Sodium hydrosulfite

R01514 Sodium hydroxide

R05326 Sodium laurate

UF Sodium dodecanoate

R05327 Sodium lauryl sulphate

UF Sodium lauryl sulfate

UF Sodium dodecyl sulphate

UF Sodium dodecyl sulfate

R05328 Sodium lauryl sulphonate

UF Sodium lauryl sulfonate

UF Sodium dodecyl sulphonate

UF Sodium dodecyl sulfonate

R01720 Sodium metabisulphite

UF Sodium metabisulfite

UF Sodium pyrosulphite

UF Sodium pyrosulfite

R01068 Sodium methoxide

R01148 Sodium oleate

R05329 Sodium persulphate

UF Sodium persulfate

R01543 Sodium silicate

R01456 Sodium stearate

R01744 Sodium sulphate

UF Sodium sulfate

R01518 Sodium sulphide

UF Sodium sulfide

R01745 Sodium sulphite

UF Sodium sulfite

R01529 Sodium tetraborate

UF Borax

R01538 Sorbitan monolaurate

R01540 Sorbitan monooleate

R02049 Sorbitan monopalmitate

R01539 Sorbitan monostearate

R05331 Stearamide

R00122 Stearic acid

R05332 Stearoyl-4-aminophenol, N-

R00955 Stearyl alcohol

G3189 Steel

R00708 Styrene

R00900 Succinic acid

R00842 Succinic anhydride

R00135 Sucrose (96)

R01076 Sulpholane
UF Sulfolane

R01725 Sulphur
UF Sulfur

R01675 Sulphur trioxide
UF Sulfur trioxide

R01714 Sulphuric acid
UF Sulfuric acid

G3190 Talc
SA Magnesium silicate

R20197 Tantalum pentachloride

R00540 Tartaric acid

R00702 Terephthalic acid
UF Benzene dicarboxylic acid, 1,4-

R03113 Tetrabromobisphenol A, 3,3',5,5'-
UF Bis(3,5-dibromo-4-hydroxyphenyl) propane, 2,2-

G3203 Tetrabromobisphenol A bis(dibromopropyl ether)

R05336 Tetrabromophthalic anhydride

R05337 Tetrabutyl ammonium hydroxide

R00986 Tetrachloro-4-benzoquinone

G3214 Tetrachloroethanes (gen)

“All isomers”

R05339 Tetrachlorophthalic anhydride

R01558 Tetracyanoquinodimethane

R06010 Tetraethoxysilane

UF Tetraethyl silicate

R00934 Tetraethylenepentamine

R05340 Tetraethyl ethylene diamine

G3225 Tetrahydrocarbyl ammonium halides (gen)

R05345 NT Tetramethyl ammonium chloride

R00895 Tetrahydrofuran

UF THF

R05342 Tetrahydrophthalic acid

R00516 Tetrahydrophthalic anhydride

R05343 Tetrakis(2,4-di t-butylphenyl)-4,4'-biphenylene-diphosphonite

R05344 Tetrakis(methylene 3-(3',5'-di t-butyl-4'-hydroxyphenyl)propionate)methane

UF Irganox 1010

UF Pentaerythritol tetrakis(3,5-di-t-butyl-4-hydroxy hydrocinnamate)

UF Pentaerythritol tetrakis(3-(3',5'-di-t-butyl-4'-hydroxyphenyl)propionate)

UF Tetrakis(3-(3,5-di-t-butyl-4-hydroxyphenyl)propionate)pentaerythritol

UF Tetrakis(methylene (3,5-di-t-butyl-4-hydroxy-hydrocinnamate))methane

R04510 Tetramethoxy silane

R04571 Tetramethyl ammonium hydroxide

G3236 Tetramethyl ammonium ion

R05346 Tetramethyl-1,3-butanediamine, N,N,N',N'-

R05347 Tetramethylethylenediamine

R05348 Tetramethyl guanidine

R00655 Tetramethylthiuram monosulphide

UF Tetramethylthiuram monosulfide

R00646 Thiobis(2-t-butyl-5-methyl phenol), 4,4'-

R05349 Thiodipropionic acid

R00277 Thioglycolic acid

UF Mercaptoacetic acid, 2-

R05253 Thioglycolic-beta-aminonaphthalide

R01727 Thionyl chloride

G3247 Thiuram disulphides (gen)

“Used when no specific thiuram disulphide given”

	UF	Thiuram disulfides (gen)
R00656	NT	Tetraethylthiuram disulphide
R01115	NT	Tetramethylthiuram disulphide
	UF	Thiram
	UF	Thiuram
G3258	NT	Thiuram disulphide, other

G3269 Tin chlorides (gen)

“Used when no specific tin chloride given”

R03040	NT	Tin (II) chloride
R01701	NT	Tin (IV) chloride

R05350 Tin (II) octanoate**R05351 Tin (IV) oleate****G3270 Tin oxides (gen)**

“Used when no specific tin oxide given”

R06013	NT	Tin (II) oxide
R01531	NT	Tin (IV) oxide

R05352 Tin (IV) thioglycolate**G3054 Titanates, organic (gen)**

“Used when no specific organo titanate given. Compounds of the structure Ti-O-R.”

R04589	NT	Isopropyl triisostearyl titanate
R01644	NT	Titanium tetrabutoxide
R05354	NT	Titanium tetraethoxide
R05355	NT	Titanium tetra(2-ethylhexoxide)
R05356	NT	Titanium tetraisopropoxide
R05357	NT	Titanium tetra n-propoxide
G3065	NT	Titanate, organic other

G3281 Titanium chlorides (gen)

“Used when no specific titanium chloride given”

R05353	NT	Titanium tetrachloride
R05358	NT	Titanium trichloride

R24103 Titanium dicyclopentadienyl dichloride (04)**R01966 Titanium oxide****R00862 Toluene****G1912 Toluene diisocyanates (gen)**

“Used when no specific isomer given”

	UF	TDI
R01392	NT	Toluene diisocyanate, 2,4-
	UF	TDI, 2,4-
R00574	NT	Toluene diisocyanate, 2,6-
	UF	TDI, 2,6-

R05359 Toluene ethyl sulphonamide

UF Toluene ethyl sulfonamide

R00301 Toluene sulphonamide, 4-

UF Toluene sulfonamide, 4-

R00760 Toluene sulphonic acid

UF Toluene sulfonic acid

R05360 Toluene sulphonyl hydrazide, 4-

UF Toluene sulfonyl hydrazide, 4-

R05361 Toluene sulphonyl semicarbazide, 4-

UF Toluene sulfonyl semicarbazide, 4-

R05363 Toluquinone

R05364 Triallyl cyanurate

R00733 Triallyl isocyanurate

UF Triallyl isocyanuric acid, N,N',N''-

G3292 Tri(bromocresyl)phosphate

"All isomers"

G3305 Tribromophenol

"All isomers"

R05367 Tributoxyethyl phosphate

R05369 Tributyl phosphine

R05368 Tributylamine

R00395 Trichloroacetic acid

R00307 Trichloroethane, 1,1,1-

R00441 Trichloroethylene

R05370 Tri(chloroethyl)phosphate

R00375 Trichloromonofluoromethane

R00398 Trichloro-1,2,2-trifluoroethane

G3316 Tricresyl phosphite

R05372 Tri(dibromopropyl)phosphate

R05373 Tri(2,4-di t-butylphenyl)phosphite

R05374 Tri(dichloropropyl)phosphate

R05375 Tri(dimethylaminoethyl)phenol

R03345 Tri(dimethylaminomethyl)phenol, 2,4,6-

R05377 Tridodecyl phosphite

R00743 Triethanolamine

R00659 Triethyl aluminium

R01013 Triethyl amine**R01188 Triethylene diamine**

UF Diazabicyclo(2.2.2) octane, 1,4-

R05378 Triethylene glycol dimethacrylate**R00925 Triethylene tetramine****R00396 Trifluoroacetic acid****R06214 Trifluoromethane sulphonic acid**

UF Trifluoromethane sulfonic acid

R05380 Trihydrazino triazine**G3327 Trihydrocarbyl phosphates (gen)**

"Used when no specific trihydrocarbyl phosphate given"

G3338	NT	Cresyl diphenyl phosphate
R05288	NT	Diphenyl n-octyl phosphate
R05201	NT	Isooctyl diphenyl phosphate
	UF	Ethylhexyl diphenyl phosphate, 2-
R05233	NT	Isopropylphenyl diphenyl phosphate
R01077	NT	Tri n-butyl phosphate
R00423	NT	Tricresyl phosphate
G3349	NT	Tri(dimethylphenyl) phosphate
R00424	NT	Triethyl phosphate
R05379	NT	Triisooctyl phosphate
	UF	Tri(2-ethylhexyl) phosphate
G3350	NT	Tri (Isopropylphenyl) phosphate
R01309	NT	Trimethyl phosphate
R05391	NT	Tri n-octyl phosphate
R00973	NT	Triphenylphosphate
G3361	NT	Tri n-propylphenyl phosphate
G3372	NT	Trihydrocarbyl phosphate, other

R00728 Triisobutyl aluminium**R05383 Triisooctyl phosphite****G3383 Trimellitic acid esters (gen)**

"Used when no specific trimellitic acid ester given"

R05382	NT	Triisodecyl trimellitate
R05384	NT	Triisooctyl trimellitate
R05392	NT	Tri n-octyl trimellitate
G3394	NT	Trimellitic acid ester, other

R01363 Trimellitic anhydride**R00352 Trimethyl aluminium****R00368 Trimethyl amine****R05388 Trimethylolpropane triacrylate****R05389 Trimethylolpropane trimethacrylate**

R09477		Tri(nonylphenyl)phosphite
R05393		Triphenyl aluminium
R01408		Triphenylphosphine
R05423		Triphenylphosphine oxide
R00729		Triphenylphosphite
G3407		Tris(dialkylaminoalkyl)hexahydrotriazine, N,N',N''-
R05429		Tris(hydroxyethyl)isocyanurate
	UF	Tris(2-hydroxyethyl)-s-triazine-2,4,6-trione, 1,3,5-
R06087		Tungsten hexachloride
R00123		Urea
R01929		Vanadium (III) chloride
R16384		Vanadium naphthenate
R02075		Vanadium oxychloride
	UF	Vanadyl chloride
G2186		Vegetable oil
	UF	Drying oil
	UF	Non-drying oil
G2197	NT	Castor oil
G2200	NT	Linseed oil
G2211	NT	Soybean oil
G0691		Vinyl silanes monoolefinic (gen)
		“Used when no specific vinyl silane given”
R05399	NT	Vinyl triacetoxy silane
R00390	NT	Vinyl trichloro silane
R05400	NT	Vinyl triethoxy silane
R05402	NT	Vinyl trimethoxy silane
R05401	NT	Vinyl tris(2-methoxyethoxy) silane
G0704	NT	Vinyl silane monoolefinic, other
R01740		Water
G3418		Wollastonite
	SA	Calcium silicate
G3429		Wood
G3430		Xylenes
		“All isomers”
G3441		Zeolites(gen)
R05406		Zinc acetate
R05407		Zinc acetylacetonate
R03130		Zinc borate

R05410 Zinc carbonate

R01703 Zinc chloride

R10007 Zinc diacrylate (96)

R24057 Zinc dibutyl dithiocarbamate

R05412 Zinc diethyl dithiocarbamate

R01116 Zinc dimethyl dithiocarbamate

R05413 Zinc fluoroborate

R05414 Zinc mercaptobenzothiazole

R10802 Zinc naphthenate

R05416 Zinc octoate
UF Zinc octanoate

R01520 Zinc oxide

R05420 Zinc phosphate

R05421 Zinc phosphite

R01377 Zinc stearate

R01525 Zinc sulphide
UF Zinc sulfide

R01885 Zirconium(IV) chloride

R24104 Zirconium dicyclopentadienyl dichloride (04)

R01521 Zirconium(IV) oxide

Chemical Aspects

The Chemical Aspects can be used to define a compound chemically, for those cases where no specific concept is available. The Chemical Aspects can also be linked to generic codes and Polymer Type codes to define the compound further.

The Chemical Aspects consist of general terms, specific functionality terms which include the acid derivative terms, and the whole of the periodic table. The Acid Derivative terms provide more specific treatment of residues of common di- and poly- functional acid condensants. This is useful because it is often possible to tell, for example, that a terephthalic acid derivative has been used as a polymer former without knowing whether it is the free acid, the dimethyl ester or some other derivative. Graphical definitions of the specific functionality terms can be found in the Polymer Indexing Reference Manual.

All the Specific Compound Numbers and the generic codes in the Polymer Formers and Chemicals facets autogenerate the relevant Chemical Aspects. This enables very generic searching to be carried out, for example, an organic phosphorus ester containing chlorine. For a complete list of autogenerated Chemical Aspects see the Polymer Indexing Reference Manual.

All the element symbols represent codes, the single character elements having a '-' added to make them 2 characters e.g. "B-". Codes have been incorporated for general metal, transition metal and for each group of the periodic table. This will improve the specificity of the element codes, since they will only be indexed for the element, and not when only the group is claimed or exemplified.

Metal is defined as excluding the following:-

Ar, As, B, Br, C, Cl, F, H, He, I, Kr, N, Ne, O, P, S, Se, Si, Te, Xe.

Transition metals are defined as follows:-

Ac, Ag, Am, Au, Bk, Cd, Ce, Cf, Cm, Co, Cr, Cu, Dy, Er, Es, Eu, Fe, Fm, Gd, Hf, Hg, Ho, Ir, La, Lu, Lw, Md, Mn, Mo, Nb, Nd, Ni, No, Np, Os, Pa, Pd, Pm, Pr, Pt, Pu, Re, Rh, Ru, Sc, Sm, Ta, Tb, Tc, Th, Ti, Tm, U, V, W, Y, Yb, Zn, Zr.

Indexing Conventions

Chemical Aspects applied to a compound should cover the whole compound, including Carbon Count. However, if the valency of the element in a salt/complex is not known, then no Carbon Count will be applied.

For inorganic compounds, the code for inorganic, elements and the appropriate functionality terms will be applied. The term for 'salt' will NOT be applied to inorganic salts.

For organic compounds, no C or H element codes will be applied.

Aromatic is defined as carbocyclic, optionally fused and containing at least one benzene ring.

Concepts for C-C unsaturation do not include aromatic unsaturation.

The aspect Diolefinic implies that a compound contains 2 double bonds not necessarily polymerisable e.g. furan. The generic code G0817 Diolefinic and its specific terms within the hierarchy from the Polymer Formers facet are used to imply 2 polymerisable double bonds.

Chemical Aspects

General Terms

D00	Inorganic
D01	Organic
D02	Hydrocarbon
D03	Stereochemistry
D04	Isotope
D05	Bridged ring
D06	Spiro
D07	Tricyclic ring system "Only applied to fused ring systems."
D08	Tetracyclic ring system and higher "Only applied to fused ring systems."
D09	Elemental state

Generic Sub-units:

"When applied to fused ring systems these aspects are applied hierarchically as follows: Heterocyclic; Aromatic; Alicyclic."

D10 Aliphatic

D11	NT	Saturated chain
D12"	NT	Unsaturated chain"
D26	NT	Acrylic (96)
D27	NT	Allyl (96)

D13 Alicyclic

D14	NT	Monocyclic alicyclic"
D15	NT	Cyclopentadienyl
D16	NT	Bicyclic alicyclic
D17	NT	Polycyclic alicyclic
D38	NT	Adamantyl (04)
D39	NT	Dicyclopentadienyl (04) "3 ring alicyclic bridged ring."

D18 Aromatic

"Carbocyclic, optionally fused, containing at least one benzene ring."

D19	NT	Benzene
D20	NT	Naphthalene
D21	NT	Polycyclic aromatic
D100	NT	Indenyl (04) "Bicyclic aromatic"
D80	NT	Fluorenyl (04) "Tricyclic aromatic"

D22 Heterocyclic

D23	NT	Monocyclic heterocyclic
D24	NT	Bicyclic heterocyclic
D25	NT	Polycyclic heterocyclic

Number of rings:

“Applied for the number of rings, regardless of type e.g. isolated, fused.”

D31 1 Ring**D32 2 Rings****D33 3 Rings****D34 4 Rings****D35 ≥5 Rings**

D96	NT	5 rings (04)
D97	NT	6 rings (04)
D98	NT	7 rings (04)
D99	NT	≥8 rings (04)

Number of Atoms in Ring:

“Applied to individual rings or fused ring system. For example ethylene oxide is a 3-member ring, naphthalene is a 10-member ring, phthalic anhydride is a 9-member ring.”

D73 3-member ring (96)**D74 4-member ring (96)****D75 5-member ring (96)****D76 6-member ring (96)****D77 7- 9 member ring (96)****D78 10-12 member ring (96)****D79 >12-member ring (96)****Atoms in Ring Systems:****D40 Ring contg no C****D41 Ring contg 1 N****D42 Ring contg 1 O****D43 Ring contg 1 S****D36 Ring contg 1 Si (96)****D44 Ring contg ≥1 P****D45 Ring contg >1 N****D46 Ring contg >1 O****D47 Ring contg >1 S**

D37 Ring contg >1 Si (96)

D48 Ring containing other element

“Other than P, N, O, S, Si, C”

C–C Unsaturation

D50 No Unsaturation

“Absence of olefinic or acetylenic unsaturation”

D51 Unsaturation containing

D52 NT Acetylenic unsaturation

D53 NT Monoolefinic unsaturation

D54 NT Diolefinic unsaturation

D55 NT Triolefinic unsaturation and higher

D56 Conjugated unsaturation

D57 Nonconjugated unsaturation

D58 Terminal olefin unsaturation

D59 Internal olefin unsaturation

Broad Functionality Types:

D60 Acid

SA Carboxylic acid

D61 Salt/Complex

“Can be used with other aspects e.g. with phenolic for phenolates, with amine for amine salts”

D62 NT Metallocene

D72 NT Bridged metallocene (04)

D63 Ester

SA Carboxylic ester

D64 Acid halide

SA Carboxylic acid halide

D65 Acid anhydride

SA Carboxylic anhydride

D66 Radical

D67 Base

UF Alkali

D49 Lewis acid (96)

D68 Metal-C

“Metal excludes Ar, As, B, Br, C, Cl, F, H, He, I, Kr, N, Ne, O, P, S, Se, Si, Te, Xe”

D69 Halogen-C

D70 Halogen-Metal

“Metal excludes Ar, As, B, Br, C, Cl, F, H, He, I, Kr, N, Ne, O, P, S, Se, Si, Te, Xe”

D71 Hydrogen-Metal

“Metal excludes Ar, As, B, Br, C, Cl, F, H, He, I, Kr, N, Ne, O, P, S, Se, Si, Te, Xe”

Carbon Count:

D81 Carbon count 1 C

D82 Carbon count 2 C

D83 Carbon count 3 C

D84 Carbon count 4 C

D85 Carbon count 5 C

D86 Carbon count 6 C

D87 Carbon count 7 C

D88 Carbon count 8 C

D89 Carbon count 9 C

D90 Carbon count 10 C

D91 Carbon count 11 C

D92 Carbon count 12 C

D93 Carbon count 13 C-18 C

D94 Carbon count 19 C-24 C

D95 Carbon count ≥ 25 C

D28 NT 25-30C (04)

D29 NT 31-40C (04)

D30 NT ≥ 41 C (04)

Specific Functionality Terms Acid Derivatives

E00 Diacyl-

E01 NT Malei-

E02 NT Fumari-

E03 NT Itaconi-

E04 NT Citraconi-

E05 NT Tetrahydrophthali-

E06 NT Methyl tetrahydrophthali-

E07 NT Nadi-

E08 NT Methyl nadi-

E09 NT Chlorendi-

E10 NT Oxali-

E11 NT Succini-

E12 NT Glutari-

E13 NT Adipi-

E14	NT	Pimeli-
E15	NT	Suberi-
E16	NT	Azelai-
E17	NT	Sebaci-
E18	NT	Dodecanedioi-
E19	NT	Phthali-
E20	NT	Isophthali-
E21	NT	Terephthali-
E22	NT	Naphthalene diacyl-
E23	NT	Sulphoisophthali-
E24	NT	Hexahydrophthali-
E25	NT	Methylhexahydrophthali-
E26	NT	Tetrabromophthali-
E27	NT	Tetrachlorophthali-
E28	NT	Diacyl-, other
E30		Polyacyl-
E31	NT	Trimelliti-
E32	NT	Pyromelliti-
E33	NT	Benzophenone tetracarboxylic derivatives
E34	NT	Biphenyl tetracarboxylic derivatives
E36	NT	Oxydiphthali- (96)
E37	NT	Hexafluoroisopropylidene diphthali- (96)
E35	NT	Polyacyl-, other

S:

F00		Sulphide “-S-”
F01		Disulphide “-S-S-”
F02		Trisulphide and higher “-(S) _n -”
F03		Episulphide
F04		Thiol
	UF	Mercaptan
F05		Thiocarboxylate
	UF	Dithiocarboxylate
F06		Thiocarbonate
	UF	Dithiocarbonate
	UF	Trithiocarbonate

N:

F07		Amine
F08	NT	Monoamine
F09	NT	Diamine

F10	NT	Triamine and higher
F11	Hydrazine	
	UF	Hydrazide
F12	Cyano	
	UF	Nitrile
F13	Azo	
	UF	Diazo
F14	Azide	
F15	Imine	
F16	Quaternary nitrogen	
F17	Amidine	
F18	Guanidine	
F19	Triazinyl	
F96	Carbodiimide (96)	
F97	Aziridine (96)	
F98	Diazone (96)	
F99	Phthalocyanine (96)	
O:		
F20	Oxide	
F21	Hydroxide	
F22	Aldehyde	
F23	Ketone	
F24	Acetal	
	UF	Ketal
F25	Ketene	
F26	Alcohol	
	"Excluding phenolic"	
F27	NT	Monoalcohol
F28	NT	Dihydroxy alcohol
F29	NT	Trihydroxy alcohol and higher
F30	Phenolic	
F31	NT	Monophenol
F32	NT	Diphenol
F33	NT	Triphenol and higher
F34	Ether	

F35 Carboxylic acid (salt)

	UF	Carboxylic acid salt
F36	NT	Monocarboxylic acid
	UF	Monocarboxylic acid salt
F37	NT	Dicarboxylic acid
	UF	Dicarboxylic acid salt
F38	NT	Tricarboxylic acid and higher
	UF	Tricarboxylic acid salt and higher

F39 Carboxylic anhydride**F40 Carboxylic acid halide****F41 Carboxylic ester**

"Acyclic C-O bond only"

F89	NT	Monocarboxylic ester (96)
F90	NT	Dicarboxylic ester (96)
F91	NT	Tricarboxylic ester and higher (96)
	SA	Lactone

F42 Percarboxylate ester**F43 Lactone****F44 Carbonate****F45 Percarbonate****F46 Percarboxylic acid****F47 Epoxide**

UF Oxirane

F48 Peroxide

UF Peroxy

F49 Haloformate (96)**P:****F50 Phosphine****F51 Phosphonium****PO/S:****F52 Phosphite****F53 Phosphate****F54 Phosphonate****F55 Thiophosphate**

UF Dithiophosphate

F56 Thiophosphonate

UF Dithiophosphonate
UF Trithiophosphonate

SO:

F60 Sulphate
UF Sulphuric

F61 Sulphonyl

F62 Sulphonic
UF Sulphonate

F63 Sulphoxide

SN:

F64 Sulphonamide

F65 Sulphenamide

F66 Isothiocyanate

F67 Thiourethane

F68 Thiourea

NO:

F70 Carboxylic amide
"Acyclic C-N bond only"

F93 NT Monocarboxylic amide (96)

F94 NT Dicarboxylic amide (96)

F95 NT Tricarboxylic amide and higher (96)

SA Lactam

F71 Lactam

F72 Imide

F73 Isocyanate

F57 NT Monoisocyanate (04)

F58 NT Diisocyanate (04)

F59 NT Tri or higher isocyanate (04)

F74 Cyanate

F75 Nitro

F76 Hydroxylamine

F77 Urethane

F78 Urea

F79 Nitroso (96)

F92 Oxime (96)

F69 Oxime O-ether (04)

"=C=N-O-C! Non-functional C-bonded oxime"

F100 Amine oxide (04)

"R₃N-O"

Si:

F80 Silicate

F81 Si-O-Si

F82 Si-N-Si

F83 Si-H

F84 Si-OH

F85 Si-Halogen

F86 Si-C

F87 Si-O-C

F88 Si-Si (96)

Periodic Table:

H- Hydrogen

1A Group 1A

"Li, Na, K, Rb, Cs, Fr"

	UF	Alkali metals
Li	NT	Lithium
Na	NT	Sodium
K-	NT	Potassium
Rb	NT	Rubidium
Cs	NT	Cesium
Fr	NT	Francium

2A Group 2A

"Be, Mg, Ca, Sr, Ba, Ra"

	UF	Alkaline earth metals
Be	NT	Beryllium
Mg	NT	Magnesium
Ca	NT	Calcium
Sr	NT	Strontium
Ba	NT	Barium
Ra	NT	Radium

3A Group 3A

"B, Al, Ga, In, Tl"

B-	NT	Boron
Al	NT	Aluminium

Ga	NT	Gallium
In	NT	Indium
Tl	NT	Thallium

4A Group 4A

"C, Si, Ge, Sn, Pb"

C-	NT	Carbon
Si	NT	Silicon
Ge	NT	Germanium
Sn	NT	Tin
Pb	NT	Lead

5A Group 5A

"N, P, As, Sb, Bi"

N-	NT	Nitrogen
P-	NT	Phosphorus
As	NT	Arsenic
Sb	NT	Antimony
Bi	NT	Bismuth

6A Group 6A

"O, S, Se, Te, Po"

O-	NT	Oxygen
S-	NT	Sulphur
Se	NT	Selenium
Te	NT	Tellurium
Po	NT	Polonium

7A Group 7A

"F, Cl, Br, I, At"

	UF	Halogens
F-	NT	Fluorine
Cl	NT	Chlorine
Br	NT	Bromine
I-	NT	Iodine
At	NT	Astatine

00 Group 0

"He, Ne, Ar, Kr, Xe, Rn"

He	NT	Helium
Ne	NT	Neon
Ar	NT	Argon
Kr	NT	Krypton
Xe	NT	Xenon
Rn	NT	Radon

3B Group 3B

"Sc, Y"

Sc	NT	Scandium
Y-	NT	Yttrium

4B Group 4B

"Ti, Zr, Hf"

Ti	NT	Titanium
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Zr	NT	Zirconium
Hf	NT	Hafnium

5B **Group 5B**
"V, Nb, Ta"

V-	NT	Vanadium
Nb	NT	Niobium
Ta	NT	Tantalum

6B **Group 6B**
"Cr, Mo, W"

Cr	NT	Chromium
Mo	NT	Molybdenum
W-	NT	Tungsten

7B **Group 7B**
"Mn, Tc, Re"

Mn	NT	Manganese
Tc	NT	Technetium
Re	NT	Rhenium

8B **Group 8B**
"Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, Pt"

Fe	NT	Iron
Ru	NT	Ruthenium
Os	NT	Osmium
Co	NT	Cobalt
Rh	NT	Rhodium
Ir	NT	Iridium
Ni	NT	Nickel
Pd	NT	Palladium
Pt	NT	Platinum

1B **Group 1B**
"Cu, Ag, Au"

Cu	NT	Copper
Ag	NT	Silver
Au	NT	Gold

2B **Group 2B**
"Zn, Cd, Hg"

Zn	NT	Zinc
d	NT	Cadmium
Hg	NT	Mercury

9A **Group 9A**

	UF	Lanthanides"
La	NT	Lanthanum
Ce	NT	Cerium
Pr	NT	Praseodymium
Nd	NT	Neodymium
Pm	NT	Promethium
Sm	NT	Samarium
Eu	NT	Europium

Gd	NT	Gadolinium
Tb	NT	Terbium
Dy	NT	Dysprosium
Ho	NT	Holmium
Er	NT	Erbium
Tm	NT	Thulium
Yb	NT	Ytterbium
Lu	NT	Lutetium

9B Group 9B

	UF	Actinides
Ac	NT	Actinium
Th	NT	Thorium
Pa	NT	Protactinium
U-	NT	Uranium
Np	NT	Neptunium
Pu	NT	Plutonium
Am	NT	Americium
Cm	NT	Curium
Bk	NT	Berkelium
Cf	NT	Californium
Es	NT	Einsteinium
Fm	NT	Fermium
Md	NT	Mendelevium
No	NT	Nobelium
Lw	NT	Lawrencium

Tr Transition metal

“Transition metals are defined as follows:- Ac, Ag, Am, Au, Bk, Cd, Ce, Cf, Cm, Co, Cr, Cu, Dy, Er, Es, Eu, Fe, Fm, Gd, Hf, Hg, Ho, Ir, La, Lu, Lw, Md, Mn, Mo, Nb, Nd, Ni, No, Np, Os, Pa, Pd, Pm, Pr, Pt, Pu, Re, Rh, Ru, Sc, Sm, Ta, Tb, Tc, Th, Ti, Tm, U, V, W, Y, Yb, Zn, Zr.”

Gm Metal general

“Metal is defined as excluding the following:- Ar, As, B, Br, C, Cl, F, H, He, I, Kr, N, Ne, O, P, S, Se, Si, Te, Xe”

Novelty

The concepts in this facet are designed to indicate the main area(s) of the invention covered by the patent.

At least one Novelty Descriptor code will be applied to each patent, but there is no limit as to how many may be applied.

The format of the Novelty Descriptors codes is NDnn.

ND00 Additive

“Used when an additive for a polymer is the novelty of the invention”

ND01 Application

“Used when the use of a polymer is the novelty of the invention”

ND02 Catalyst

“Used when a catalyst is the novelty of the invention”

ND03 Chemical process

“Used when a chemical process is the novelty of the invention”

UF Polymerisation process

ND04 Composition

“Used when a new polymer or polymer composition is the novelty of the invention”

UF Novel polymer

ND05 Equipment

“Used when equipment for processing polymer, additive or catalyst is the novelty of the invention”

ND06 Modified polymer

“Used when a modified polymer is the novelty of the invention”

ND07 Physical operation

“Used when a physical operation is the novelty of the invention”

ND08 Polymer former

“Used when a polymer former (monomer or condensant) is the novelty of the invention”

UF Monomer

ND09 Property

“Used when a property is the novelty of the invention”

ND10 Shape or form

“Used when shape or form of polymer, additive or catalyst is the novelty of the invention”

Universal Terms

The concepts in this facet are general, non-chemical terms which can be used in combination with any other term(s) to define a concept further. Thus, the radiation codes can be used with, for example, a crosslinking process, a polymerisation process, welding process or protective clothing to give a wide range of searchable concepts.

The concepts are arranged alphabetically and the format of the codes is Knnnn.

All the Narrower terms (NT) autopost the more generic term(s). Generic terms which are actually indexed, rather than autoposted, can be searched by adding '-R' to the end of the code; thus Radiation which has been indexed should be searched using K9790-R. Searching K9790 will retrieve all references - indexed and autoposted.

See Also (SA) terms, which relate to concepts in a different facet, have the facet indicated in brackets after the term.

The concepts in the Interface hierarchy are used, for example, with the coating terms and for laminates, but not for the interface between polymer and additive.

The Reinforced concept is used for compositions, moulded articles etc., which are reinforced by addition of reinforcing agent(s) or reinforced by design.

Universal Terms

K9370 Ambient temperature

UF	Room temperature
SA	High temperature
SA	Low temperature

K9961 Amphoteric (96)

K9381 Anisotropic

SA	Optically anisotropic [properties]
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K9392 Continuous

K9405 Corrugated

K9416 Design feature

K9427 Electric discharge

UF	Corona discharge
UF	Glow discharge
UF	Plasma

K9438 Engineering resin

K9449 Filled resin

K9972 Fluidised bed (96)

K9450 High pressure

“Higher than 500 atmospheres”

SA	Low pressure
SA	Vacuum

K9461 High temperature

SA	Ambient temperature
SA	Low temperature

K9983 Honeycomb (96)

“Used when a honeycomb structure is present though not necessarily polymeric e.g. laminate containing graphite honeycomb core”

K9472 In-situ

K9483 Interface

“Surface on which a polymer is coated or face adjacent to polymer in a laminate or moulded article. Not used for interface between polymer and additive”

K9494	NT	Ceramics interface
		UF Porcelain interface
K9507	NT	Composite board interface
		UF Chipboard interface
		UF Fibreboard interface
		UF Hardboard interface
		UF Plywood interface
K9994	NT	Concrete interface (96)
K9518	NT	Fabric interface

		UF	Fibre interface
		SA	Glass fabric interface
K9529	NT		Glass interface
		SA	Glass fabric interface
K9530	NT		Glass fabric interface
		UF	Glass fibre interface
K9541	NT		Leather interface
K9552	NT		Metal interface "Including pre-treated metal"
		SA	Wire interface
K9563	NT		Paper interface
K9574	NT		Polymer interface
K9585	NT		Silicon interface
			"Including pre-treated and doped silicon"
K9596	NT		Wire interface
		SA	Metal interface
K9609	NT		Wood interface
		UF	Plywood interface
		UF	Wood veneer interface
K9610	NT		Interface, other

K9621 Ionic

"Used when stated"

K9632	NT		Anionic
K9643	NT		Cationic
K9303	NT		Zwitterionic (96)
	SA		Non-ionic

K9314 Isotropic (96)**K9654 Low pressure**

SA	High pressure
SA	Vacuum

K9665 Low temperature

UF	Cold
SA	Ambient temperature
SA	High temperature

K9676 Multilayer structure

"Including non-polymeric layers"

K9687	NT		Bi-layer structure
K9698	NT		Tri-layer structure
K9701	NT		Tetra-layer (or greater) structure
K9712	NT		Polymeric exterior layer

K9723 Multistage

"A single processing step in several stages e.g. multistep injection moulding; but not forming a parison and then blow moulding"

K9325 Non-ionic (96)

SA	Ionic
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K9734 Polar

"Used when stated"

SA	Bond properties [properties]
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K9745 Polymer blend

	UF	Blend of polymers
	UF	Mixture of polymers
	UF	Polymer alloy
K9756	NT	Compatible polymer blend
K9767	NT	Interpenetrating polymer network
	UF	Snake-cage polymers
K9778	NT	Incompatible polymer blend

K9789 Prepreg**K9790 Radiation**

K9803	NT	Ionising radiation
		“Used for alpha-, beta-, gamma-rays and electron or neutron bombardment”
K9814	NT	Electron beam
K9336	NT	Gamma radiation (96)
		“Approximate wavelength range: 5×10^{-14} - 10^{-11} m.”
K9825	NT	X-rays
		“Approximate wavelength range: 5×10^{-12} - 10^{-8} m.”
K9836	NT	I R radiation
		“Approximate wavelength range: 7.8×10^{-7} - 10^{-3} m.”
	UF	Infra red radiation
K9847	NT	Light radiation
K9858	NT	Laser radiation
K9869	NT	U V radiation
		“Approximate wavelength range: 10^{-8} - 3.8×10^{-7} m.”
	UF	Ultra violet radiation
	UF	UV radiation
K9870	NT	Visible light radiation
		“Approximate wavelength range: 3.8×10^{-7} - 7.8×10^{-7} m.”
K9347	NT	Radio frequency (96)
		“Approximate wavelength range: 10^{-5} - 10^{-3} m.”
	UF	R F
K9881	NT	Microwave
		“Approximate wavelength range: 10^{-3} - 0.3 m.”

K9892 Reinforced**K9905 Safety**

SA	Protective clothing [applications]
SA	Toxicity to humans [properties]

K9916 Synergism**K9927 Texture****K9938 Ultrasonic wave****K9949 Vacuum**

SA	High pressure
SA	Low pressure

K9950 Waste material

“Used for non re-usable polymeric and non-polymeric material”

UF	By-products
UF	Non polymeric residue
UF	Vat residues

Shape & Form

The Shape & Form terms can be applied to polymers, additives, catalysts and modifying agents. The hierarchies in this facet are arranged alphabetically and the format of the codes is Snnnn.

All the Narrower terms (NT) autopost the more generic term(s). Generic terms which are actually indexed, rather than autoposted, can be searched by adding '-R' to the end of the code; thus Fibre which has been coded should be searched using S1070-R. Searching S1070 will retrieve all references - indexed and autoposted.

A special generic code, S9999, will be present in the online record whenever a Shape & Form code has been applied. This enables you to search for the presence of a Shape & Form code without specifying the type of shape or form.

Shape & Form

S1003 Cord

UF Rope

S1014 Dispersion

S1025	NT	Emulsion
	UF	Aqueous dispersion
	UF	Latex
	UF	Oil-in-water dispersion
S1036	NT	Organosol
		“Stable dispersion of polymer in non-aqueous medium”
S1047	NT	Paste
		“Stable dispersion of polymer in plasticiser”
	UF	Plastisol
S1058	NT	Slurry
		“Unstable dispersion”
S1069	NT	Water-in-oil dispersion

S1070 Fibre

	UF	Yarn
S1081	NT	Braided fibre
S1092	NT	Chopped fibre
	UF	Short fibre
	UF	Staple fibre
S1105	NT	Conjugate fibre
	UF	Bicomponent fibre
	UF	Composite fibre
	UF	Heterofilament
	UF	Island-in-sea fibre
	UF	Side-by-side fibre
S1116	NT	Sheath-core fibre
		“Both sheath and core components must be polymeric”
S1127		NT Core of sheath-core fibre
S1138		NT Sheath of sheath-core fibre
S1149	NT	Continuous fibre
	UF	Filament
	UF	Long fibre
S1150	NT	Elastic fibre
	UF	Lycra
	UF	Spandex
S1161	NT	Fabric
		“Filament terms only used in addition when type of fibre is important”
S1172		NT Knitted fabric
S1183		NT Non-woven fabric
	UF	Felts
S1194		NT Woven fabric
S1694		NT Pile fabric (96)
	SA	Net
S1207		NT Hollow fibre
S1218		NT Monofilament
S1229		NT Non-circular fibre

			“Including non-cellulosic pulp”
		UF	Plexifilament
		UF	Poly-lobal fibre
S1230		NT	Fibrillated fibre
S1241		NT	Microfibre
		UF	Melt blown fibre
S1252		NT	Tapered fibre
S1263		NT	Textile fibre
S1274		NT	Textured fibre
		UF	Bulked fibre
		UF	Crimped fibre
		UF	False twisted fibre
		SA	Cord
		SA	Tyre Cord
		SA	Whisker
S1285	Film		
			“Solid, not fabric. Thin and flexible enough to be folded without permanent deformation”
S1296		NT	Tubular film
		SA	Tube
S1309	Foam		
S1310		NT	Closed cell foam
S1321		NT	Syntactic foam
S1332		NT	Integral skin foam
S1343		NT	Open cell foam
		UF	Reticulated foam
S1354	Honeycomb structure		
S1365	Gel		
S1376	Grease		
		UF	Liquid at ambient temperature
		UF	Oil
		UF	Wax
S1387	Melt		
S1398	Microballoon		
			“Hollow microcapsule”
S1401	Microcapsule		
S1412		NT	Microcapsule core
S1423		NT	Microcapsule wall
S1434	Moulded article		
		UF	Block
		UF	Slab
S1445	Net		
		SA	Fabric
S1456	Particulate form		
S1467		NT	Bead

		“Including beads resulting from suspension polymerisation”
S1478	NT	Core-shell polymer
		“Both core and shell components must be polymeric”
S1489	NT	Core of core-shell polymer
S1490	NT	Shell of core-shell polymer
S1503	NT	Granule
S1514	NT	Powder
	UF	Flour
S1525	Platelet	
	UF	Flake
S1536	Preform	
	UF	Blank
	UF	Parison
S1547	NT	Pellet
S1558	Profile	
	UF	I-beam profile
	UF	U-beam profile
S1569	Rod	
S1570	Scale	
		“Undesirable deposits”
	UF	Pebbles
S1581	Sheet	
		“Solid, not fabric. Too thick to be folded without causing permanent deformation”
S1592	Sheet moulding compound	
	UF	SMC
	UF	Bulk moulding compound
	UF	BMC
	UF	Dough moulding compound
	UF	DMC
	UF	Thick moulding compound
	UF	TMC
S1605	Solution	
S1616	NT	Aqueous solution
S1627	NT	Organic solution
S1638	NT	Syrup
S1649	Strip	
	UF	Lace
	UF	Ribbon
S1650	NT	Tape
S1661	Tube	
	SA	Tubular film
S1672	Tyre cord	
	SA	Filament
S1683	Whisker	
	SA	Filament

Additives

The Additives facet contains all the functional concepts for additives. The chemical information relating to additives will be found in the Chemicals facet and the Chemical Aspects facet.

The use of the Additive terms is restricted to additives for polymers.

The concepts in this facet are arranged alphabetically and the format of the codes is Annn.

All Narrower terms (NT) autopost the more generic term(s). Generic terms which are actually indexed, rather than autoposted, can be searched by adding '-R' to the end of the code; thus Stabiliser which has been indexed should be searched using A486-R. Searching A486 will retrieve all references - indexed and autoposted.

A special generic code, A999, will be present in the online record whenever an Additive code has been applied. This enables you to search for the presence of an Additive, without specifying the type of additive.

Preparation of additives will be indexed using codes from the Chemical Processes facet or Physical Operation facets. The code C260 is used for catalysts for additive preparation.

Additives

A000 Absorbent

	UF	Adsorbent
A011	NT	Oil absorbent
A022	NT	Water absorbent

Accelerator	SEE	Crosslinking accelerator
	SEE	Kicker

A033 Adhesion improver

	UF	Bond improver
	UF	Coupling agent
	UF	Primer
	SA	Tackifier

A044 Biological repellent

	UF	Animal repellent
	UF	Antimicrobial agent
	UF	Antiseptic
	UF	Bactericide
	UF	Biocide
	UF	Fungicide
	UF	Herbicide
	UF	Insecticide
A055	NT	Antifouling agent
	SA	Scale inhibitor

A066 Buffer

A077 Colouring agent

	UF	Coloring agent
	UF	Luminescent agents
	UF	Reflective agents
A088	NT	Brightener
	UF	Delustrant
	UF	Flatting agent
	UF	Opacifier
	UF	Optical bleach
	UF	Whitening agent
A099	NT	Dye
A102	NT	Pigment
	SA	Ink

A113 Compatibility improver

A124 Complexing agent

	UF	Chelating agent
	UF	Sequestering agent

A135 Conductivity imparting agent

“Additive used to impart electrical conductive property”

	SA	Antistatic agent
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- A146 Crosslinking accelerator**
UF Crosslinking activator
- A157 Crosslinking agent**
UF Crosslinking initiator
UF Curing agent
UF Vulcanising agent
UF Vulcanizing agent
A168 NT Friedel Crafts crosslinking agent
A179 NT Photocrosslinking agent
SA Photocatalyst [catalysts]
- A180 Crosslinking retarder**
UF Antigelling agent
UF Antiscorch agent
UF Blocking agent for crosslinking agent
UF Cure retarder
- A191 Deodorant**
SA Odorant
- A204 Depolymerisation agent**
UF Peptiser
UF Peptizer
UF Prodegradant
- A215 Dyeing aid**
UF Dye receptiveness improver
SA Colouring agent
- A226 Extender**
“Including oils for rubber”
SA Filler
- A237 Filler**
SA Conductivity imparting agent
SA Reinforcing agent
- A248 Flame retardant**
UF Fire proofer
A259 NT Burning drip retardant
SA Smoke reducer
- A260 Foaming agent**
UF Blowing agent
A271 NT Chemical foaming agent
A282 NT Volatile foaming agent
SA Intumescent agent
SA Kicker
SA Pore former
- A293 Impact modifier**
- A306 Ink**
“For polymer surface”

A317	Intumescing agent		
		UF	Char former
A328	Kicker		
		UF	Blowing agent accelerator
		UF	Foaming agent activator
A339	Low profile additive		
		UF	Shrink reducing agent
A340	Lubricant		
		UF	Oiling agent for fibres and textiles
A351		NT	Mould release agent
A362	Nucleating agent		
		UF	Seeding agent
		SA	Foam stabiliser
A373	Odorant		
		UF	Fragrance
		SA	Deodorant
A384	Plasticiser		
		UF	Plasticizer
		SA	Reactive diluent
A395	Pore former		
	"Includes solid particles which are removed to provide a porous structure"		
		SA	Foaming agent
A408	Reactive diluent		
		SA	Plasticiser
A419	Reinforcing agent		
		SA	Filler
A420	Repellent		
A431		NT	Oil repellent
		UF	Plasticiser repellent
		UF	Plasticizer repellent
		UF	Solvent repellent
A442		NT	Soil repellent
		UF	Stain repellent
A453		NT	Water repellent
		UF	Water proofing agent
		SA	Biological repellent
		SA	Scale inhibitor
A464	Smoke reducer		
		SA	Flame retardant
A475	Solvent		
		UF	Diluent
		UF	Swelling agent

A486 Stabiliser

	UF	Stabilizer
	UF	Anti-ageing agent
A497	NT	Antioxidant
A500	NT	Antiozonant
A511	NT	Heat stabiliser
A522	NT	Hydrogen halide acceptor
A533	NT	Ionising radiation stabiliser
		“Use Ionising radiation universal terms as applicable”
	UF	Antirad
A544	NT	Light stabiliser
		“Use Light radiation universal terms as applicable”
	UF	Light absorbent
	UF	Photostabiliser
A555	NT	Stabiliser, other

A566 Surfactant

A577	NT	Antiblocking agent
		“Material (usually powder) applied to polymer surface to reduce adhesiveness”
	UF	Dusting agent
	UF	Slip agent
A588	NT	Antifoaming agent
A599	NT	Antifog agent
A602	NT	Antistatic agent
A613	NT	Coagulant
A624	NT	Dispersant
A635	NT	Emulsifier
	UF	Detergent
	UF	Soap
	UF	Wetting agent
A646	NT	Protective colloid
A657	NT	Foam stabiliser
	UF	Cell stabiliser
A668	NT	Scale inhibitor
	SA	Antifouling agent
A679	NT	Surfactant, other

A680 Tackifier

	SA	Adhesion improver
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A691 Viscosity modifier

A704	NT	Gelling agent
	SA	Crosslinking agent
A715	NT	Thickener
A726	NT	Thixotrope
A737	NT	Viscosity reducing agent
	UF	Viscosity depressant

A793 Additive of unspecified use (96)**A748 Additive, other****A759 Additive preparation**

A760 Multifunctional additive

A771 Multiple additives with same function

“The presence of two or more additives having the same function in the same composition”

A782 Polymeric additive

Related terms from other facets:

C260 Catalyst for additive preparation [catalysts]

Catalysts

This facet includes catalysts, initiators and controllers used for polymerisation, polymer modification, polymer former preparation and additive preparation. Catalyst for catalyst preparation is not covered unless either the catalyst or the catalyst being prepared is polymeric.

The concepts cover both the type of catalyst and the type of reaction being catalysed, and any number of these codes may be used in combination. The chemical information relating to catalysts will be found in the Chemicals facet and the Chemical Aspects facet.

The codes for this facet are of the format Cnnn.

All the Narrower terms (NT) autopost the more generic term(s). Generic terms which are actually indexed, rather than autoposted, can be searched by adding '-R' to the end of the code; thus Catalyst auxiliary which has been indexed should be searched using C113-R. Searching C113 will retrieve all references - indexed and autoposted.

See Also (SA) terms which relate to concepts in a different facet have the facet indicated in brackets after the term.

A special general code, C999, will be present in the online record whenever a Catalyst code has been applied. This enables you to search for the presence of a Catalyst without specifying the type of catalyst.

For crosslinking catalysts and initiators, see Crosslinking agent and Crosslinking accelerator in the Additives facet.

Chain initiators, for example trimethylol propane for polyethers and polyetherurethanes, are regarded as modifying agents, rather than catalysts, initiators or controllers, or polymer formers.

Catalysts

C000 Catalyst

	UF	Initiator
C011	NT	Alfin catalyst
C022	NT	Friedel Crafts catalyst
C033	NT	Coordination catalyst
	UF	Ziegler-Natta catalyst
C044	NT	Biological catalyst
	UF	Bacterial catalyst
	UF	Enzyme catalyst
	UF	Micro-organism catalyst
C055	NT	Group transfer catalyst
C066	NT	Phase transfer catalyst
C077	NT	Photocatalyst
	UF	Photoinitiator
	SA	Free radical initiator
	SA	Photocrosslinking agent [additives]
C088	NT	Free radical initiator
C099	NT	Redox initiator
	SA	Photocatalyst
C102	NT	Catalyst, other

C113 Catalyst auxiliary

C124	NT	Cocatalyst
	UF	Catalyst activator
C135	NT	Electron donor
C146	NT	Catalyst auxiliary, other

C340 Multiple catalysts with same function (96)

“The presence of two or more catalysts or catalyst auxiliaries having the same function in the same system”

C157 Catalyst preparation material

C168 Catalyst support

C179 Chain coupler

“Polyfunctional compound used to couple polymer chains”

C180 Blocking agent for polymer former

SA Polymerisation inhibitor

C191 Polymerisation inhibitor

UF Polymerization inhibitor
SA Blocking agent for polymer former

C204 Chain stopper

UF Catalyst deactivator

C215 Polymerisation regulator

UF Chain transfer agent
UF Molecular weight control agent
UF Peak suppressor
UF Polymerisation modifier
UF Polymerization regulator

- C226** **Telogen**
- C237** **Controller, other**
- C248** **Catalyst preparation**
- C259** **Catalyst for polymer former preparation**
- C260** **Catalyst for additive preparation**
- C271** **Catalyst for polymer modification**
- C282** **Catalyst for natural polymer production**
- C293** **Catalyst for polymerisation through C-C unsaturation only**
- C306** **Catalyst for polymerisation NOT through C-C unsaturation**
- C317** **Catalyst for polymerisation by reaction of C-C unsaturation with non C-C unsaturated functionality**
- C328** **Catalyst for polymerisation involving ring opening**
- C339** **Catalyst for polymerisation involving cyclisation**

Related terms from other facets:

- D62 Metallocene [chemical aspects]
- D72 Bridged metallocene [chemical aspects]

Chemical Processes

The terms in the Chemical Processes facet can be used for polymers, polymer formers and additives. For polymers, there are also the corresponding modified terms in the Modified Polymers facet. The terms in this facet are not used for catalyst preparation, unless the catalyst is polymeric. This facet also contains all the polymerisation concepts and these can be used in conjunction with concepts such as amidation to define the bond formed during condensation polymerisation of a diacid and a diamine to produce a polyamide.

The concepts and hierarchies are arranged alphabetically and the codes in this facet have the format Lnnnn.

All the Narrower terms (NT) autopost the more generic term(s). Generic terms which are actually indexed rather than autoposted can be searched by adding '-R' to the end of the code; thus Halogenation which has been indexed should be searched using L2222-R. Searching L2222 will retrieve all references - indexed and autoposted.

A special generic code, L9999, will be present in the online record whenever a Chemical Process code has been applied. This enables you to search for the presence of a Chemical Process without specifying the type of process.

The terms in the equipment facet can be used in conjunction with any of the Chemical Process terms to provide searchable concepts for the equipment for these processes.

Metal is defined as excluding the following:-

Ar, As, B, Br, C, Cl, F, H, He, I, Kr, N, Ne, O, P, S, Se, Si, Te, Xe.

Chemical Processes

L2006 Acetalisation

L2017 Acrylation

“Reaction with any acrylic derivative. Used with other chemical process concepts as applicable”

L2028 Amidation

“Including urea group formation”

L2039 Amination

L2040 Ammoxidation

L2051 Boron incorporation

“Used for any process incorporating boron”

L2062 Carboxy group incorporation L2073

L2073 Crosslinking

UF Curing

UF Vulcanisation

L2084 Cyclisation

“Creation of ring by bond formation”

L2095 Degradation

L2108 NT Carbonisation

UF Pyrolysis

UF Thermal decomposition

L2119 NT Depolymerisation

L2120 Dehalogenation

L2131 Dehydrohalogenation

L2142 Doping

SA Metal incorporation

L2153 End group modification

L2164 NT End blocking

L2175 Epoxidation

“Used for formation or incorporation of epoxy group”

L2186 Esterification

“Reaction with carboxylic acid or derivative only”

L2197 NT Transesterification

UF Ester exchange

SA Acrylation

SA Halosulphonation

SA Maleinisation

SA Sulphonation

L2200 Etherification

L2211 Haloalkylation**L2222 Halogenation**

L2233	NT	Bromination
L2244	NT	Chlorination
L2255	NT	Fluorination
L2266	NT	Iodination
	SA	Haloalkylation
	SA	Halosulphonation

L2277 Halosulphonation

	UF	Halosulfonation
	UF	Sulphohalogenation
	UF	Sulfohalogenation
L2288	NT	Chlorosulphonation

L2299 Hydrocarbylation

“Formation of C-C bond. Not used for C-C addition polymerisation or metathesis polymerisation”

	UF	Alkylation
	UF	Arylation
	SA	Haloalkylation

L2846 Hydroformylation (96)

“The process of adding a hydroformyl group (H_2CO) to a molecule.”

L2302 Hydrohalogenation**L2313 Hydrolysis**

	UF	Alcoholysis
	UF	Glycolysis
	UF	Saponification

L2324 Hydroxy group incorporation

	SA	Hydrolysis
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L2335 Imidation

	SA	Cyclisation
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L2346 Isomerisation

	UF	Disproportionation
	UF	Rearrangement

L2357 Ketalisation**L2368 Maleinisation**

“Reaction with any maleic derivative. Used with other chemical process concepts as applicable”

L2379 Metal incorporation

“Metal excludes Ar, As, B, Br, C, Cl, F, H, He, I, Kr, N, Ne, O, P, S, Se, Si, Te, Xe”

L2380	NT	Metallation
		“C-metal bond formation”
	SA	Boron incorporation
	SA	Phosphorus incorporation
	SA	Silicon incorporation

L2391 Modification of polymer

UF Polymer modification

L2404 Natural polymer production

L2415 Neutralisation

L2426 Nitration

“Addition of NO₂”

L2437 Oxidation

UF Ozonisation

L2448 NT Dehydrogenation

L2459 Oxyalkylation

UF Alkoxylation

L2460 Phosphorus incorporation

“Used for any process incorporating phosphorus”

L2471 Polymer former preparation

UF Monomer preparation

L2506 Polymerisation

“For reactions other than C-C addition or metathesis polymerisation, the concept(s) for the bond(s) formed should also be used, e.g. amidation for polyamide production”

UF Polymerization

L2517 NT Bulk polymerisation

UF Mass polymerisation

L2528 NT Copolymerisation

“Used for polymerisation of >1 polymer former”

L2539 NT Core-shell polymerisation

L2540 NT Electrolytic polymerisation

L2551 NT Emulsion polymerisation

L2562 NT Gaseous polymerisation

L2573 NT Homopolymerisation

“Used for polymerisation of a single polymer former”

L2584 NT Interfacial polymerisation

L2595 NT Oligomerisation

L2608 NT Dimerisation

L2619 NT Plasma polymerisation

L2620 NT Prepolymerisation

L2631 NT Residual polymer former polymerisation

UF Residual monomer polymerisation

L2642 NT Slurry polymerisation

“Polymer former(s) soluble, polymer formed insoluble”

L2653 NT Solid phase polymerisation

L2664 NT Solution polymerisation

“Polymer former(s) soluble, polymer formed soluble”

L2675 NT Suspension polymerisation

UF Bead polymerisation

UF Dispersion polymerisation

UF Granular polymerisation

L2686 NT Telomerisation

SA Cyclisation

SA Ring opening

L2700 Quaternisation**L2711 Reduction**

L2722 NT Hydrogenation

L2733 Ring opening

L2744 NT Heterocyclic ring opening

L2755 NT Hydrocarbon ring opening

L2766 Silanation

"Formation of Si-C bond"

UF Silylation

SA Silicon incorporation

L2777 Silicon incorporation

"Used for any process incorporating silicon"

SA Silanation

L2788 Sulphation

UF Sulfation

L2799 Sulphonation

UF Sulfonation

L2802 Surface modification

"By chemical process only"

L2813 Unsaturation incorporation

"C-C unsaturation only"

SA Acrylation

SA Maleinisation

L2824 Urethanisation

UF Carbamylation

L2835 Chemical process, other**Related terms from other facets:**

C271 Catalyst for polymer modification [catalysts]

H0157 Atom(s) incorporated in polymer by modification [polymer descriptors]

H0226 Modifying agent [polymer descriptors]

H0362 End functional polymer (04) [polymer descriptors]

Physical Operations

The Physical Operations facet contains all the processing terms.

The hierarchies and concepts are arranged alphabetically and the format of the codes in this facet is Nnnnn.

All the Narrower terms (NT) autopost the more generic term(s). Generic terms which are actually indexed, rather than autoposted, can be searched by adding '-R' to the end of the code; thus Moulding which has been indexed should be searched using N6440-R. Searching N6440 will retrieve all references - indexed and autoposted.

See Also (SA) terms which relate to concepts in a different facet have the facet indicated in brackets after the term.

A special generic code, N9999, will be present in the online record whenever a Physical Operation code has been applied. This enables you to search for the presence of a Physical Operation without specifying the type of operation.

The terms in the Equipment facet can be used in conjunction with any of the Physical Operation terms to provide searchable concepts for the equipment for these processes.

In the Surface treating hierarchy, any number of the coating concepts may be used in combination; for example, coating with metal onto a polymer by sputtering would be covered by the following three concepts:- Coating by sputtering, Coating onto polymer and Coating with metal.

The products of these processes can be searched using the Surface treated terms from the Properties facet.

Physical Operations

N5709 Agitating

UF Stirring

N5710 Bleaching

UF Decolourising

N5721 Bonding

“Using an adhesive agent”

UF Adhering

N5732 NT Solvent welding

SA Heat sealing

SA Joining

N5743 Casting

N5754 Coalescing

UF Agglomerating

N5765 Colouring

N5776 NT Bulk colouring

UF Pigmenting

SA Masterbatching

N5787 NT Surface colouring

UF Dyeing

N5798 NT Printing

N5801 NT Solvent dyeing

N5812 Cooling

N5823 NT Quenching

N5834 Crimping

UF False twisting

N5845 Crystallising

SA Cooling

SA Heating

N5856 Defect preventing

UF Sag avoidance or removal

N5867 Densifying

N7341 Developing (04)

“Physical removal of resist, e.g. by dissolving. Dissolving also indexed if appropriate”

N5878 Dimensioning

“Used for shape or size control of products” SA Defect preventing

SA Defect preventing

N5889 Dissolving

N5890 NT Solution forming

SA Solution polymerisation [chemical processes]

N5903 NT Syrup forming

N5914 Drawing

	UF	Orienting"
	UF	Stretching
N5925	NT	Biorienting
	UF	Biaxial drawing
N5936	NT	Uniaxially orienting
	SA	Oriented [<i>properties</i>]

N5947 Emulsifying

	UF	Suspension forming"
	SA	Emulsion polymerisation [<i>chemical processes</i>]
	SA	Suspension polymerisation [<i>chemical processes</i>]

N5958 Equipment cleaning

"Used for cleaning of processing equipment"

	SA	Cleaning
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N5969 Evacuating

	SA	Vacuum forming
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N5970 Extruding

"Used for any process in an extruder, such as foaming"

N5981	NT	Coextruding
N5992	NT	Extrusion blowing

N6008 Fabric production

N6019	NT	Knitting
N6020	NT	Non-woven fabric production
N6031	NT	Weaving

N6042 Fibre reinforced plastics lay-up

	UF	FRP lay-up
N6053	NT	Filament winding
N6064	NT	Pultrusion

N6075 Fibrillating**N6086 Foaming**

	UF	Expanding
	UF	Pore forming

N6097 Forming

N6100	NT	Cold forming
N6111	NT	Thermoforming
N6122	NT	Vacuum forming

N6133 Gelling

	SA	Crosslinking [<i>chemical processes</i>]
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N6144 Granulating

	UF	Comminuting
	SA	Pelleting

N6155 Grinding**N6166 Heat sealing**

	UF	Welding
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N6177 Heating

N6188	NT	Annealing
		UF Heat treating
		UF Stress relaxing
N6199	NT	Heat setting
N6202	NT	Melting
		SA Heat sealing
N6213	NT	Preheating
N6224	NT	Sintering
	SA	Shrinking
	SA	Temperature control

N6235 Insert incorporating**N6246 Joining**

	UF	Bolting
	UF	Connecting
	SA	Bonding
	SA	Heat sealing

N6257 Labelling**N6268 Machining**

N6279	NT	Cutting
N6280	NT	Deflashing
		UF Burr removal
		UF Trimming
N6291	NT	Drilling
N6304	NT	Perforating
N6315	NT	Punching
	SA	Granulating

N6326 Masterbatching**N6337 Material handling**

N6348	NT	Conveying
N6359	NT	Ejecting
N6360	NT	Feeding
N6371	NT	Wind up
		"Including wind up of film, tape, fibre"

N6382 Measuring

N6393	NT	Gravimetric measuring
		UF Dosing
N6406	NT	Temperature measuring
N6417	NT	Volumetric measuring
		UF Metering
	SA	Testing

N6428 Melt blowing

"Used for production of fibres"

N6439 Mixing

	UF	Blending
	SA	Masterbatching

N6440 Moulding

N6451	NT	Blow moulding
N6462	NT	Compression moulding
		SA Stamping
N6473	NT	Dip moulding
N6484	NT	Injection moulding
N6495	NT	Outsert injection moulding
		UF Injection moulding onto inlays
N6508	NT	Reaction injection moulding
		UF RIM
N6519		NT Reinforced reaction injection moulding
		UF RRIM
N6520	NT	Rotational moulding
		UF Centrifugal casting
N6531	NT	Slush moulding
N7307	NT	Stereographic moulding (96)
		“Process used to produce a three-dimensional polymer form by sequential polymerising or curing, usually by computer control, onto a previously polymerised or cured surface, thus ‘building-up’ a three-dimensional moulding.”
N6542	NT	Transfer moulding
	SA	Casting
	SA	Tyre production

N6553 Nucleating

UF Seeding

N6564 pH control**N6575 Pollution control**

“Applicable to any process”

SA Waste treating

N6586 Preforming

N6597	NT	Pelleting
	SA	Granulating

N6600 PressingUF Compressing
SA Stamping**N6611 Process control**

N6622	NT	Automation
		UF Computer control
N6633	NT	Temperature control
	SA	pH control

N6644 Purging

UF Flushing

N6655 Purifying

N6666	NT	Catalyst removing
N6677	NT	Centrifuging
N6688	NT	Cleaning
N6699	NT	Coagulating
N6702	NT	Concentrating
N6713	NT	Decanting

N6724	NT	Degassing
N7318	NT	Deliquefying (96)
		UF Dewatering
N6735	NT	Distilling
N6746	NT	Flash vaporising
N6757	NT	Fractional distilling
N6768	NT	Steam distilling
N6779	NT	Stripping
N6780	NT	Drying
N6791	NT	Spray drying
N6804	NT	Filtering
N6815	NT	Ultrafiltering
N6826	NT	Polymer former removing
		UF Monomer removing
N6837	NT	Polymer fractionating
N6848	NT	Precipitating
N6859	NT	Regenerating
N6860	NT	Solvent removing
N6871	NT	Sterilising
N6882	NT	Washing
N6893	NT	Purifying, other
	SA	Crystallising
	SA	Purging
	SA	Residual polymer former polymerisation [chemical processes]

N6906 Recycling

“Processing of used products to make other products, either the same or different”

SA Reuse of scrap

N6917 Repairing**N6928 Reuse of scrap**

“Collection and reuse of materials during production processes; includes solvent recycling”

SA Pollution control

SA Recycling

SA Waste treating

N6939 Rolling

N6940 NT Calendering

N6951 Shrinking**N6962 Spinning**

N6973	NT	Dry spinning
		UF Evaporative spinning
N6984	NT	Flash spinning
N6995	NT	Wet spinning
		UF Coagulative spinning
		UF Dry-wet spinning

N7001 Stamping**N7012 Storing**

“Used for polymers, polymer formers, catalysts, additives and intermediates”

N7023 Surface treating

N7034	NT	Coating
N7045	NT	Coating by dipping UF Coating by immersion
N7056	NT	Coating by electrodeposition UF Electrostatic coating SA Electroplating
N7067	NT	Coating by spraying UF Flame spraying
N7078	NT	Coating by spreading
N7329	NT	Spin coating (96)
N7089	NT	Coating by sputtering
N7090	NT	Coating onto polymer
N7103	NT	Coating with metal UF Metallising
N7114		NT Electroless deposition
N7125		NT Electroplating
N7136	NT	Coating with non-polymer SA Coating with polymer SA Coating with metal
N7147	NT	Coating with polymer SA Coating with polymer former(s)
N7158	NT	Coating with polymer former(s) UF Coating with monomer(s) SA Coating with polymer
N7169	NT	Embossing
N7170	NT	Encapsulating
N7181	NT	Etching
N7192	NT	Laminating
N7205	NT	Lining
N7330	NT	Microencapsulating (96)
N7216	NT	Polishing
N7227	NT	Surface treating, other SA Stamping SA Surface colouring SA Surface modification [chemical processes]

N7238 Testing

N7249	NT	Analytical techniques
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N7250 Twisting

SA	Crimping
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N7261 Tyre production

“Used for moulding and associated processes”

N7272 Venting**N7283 Waste treating**

SA	Pollution control
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N7294 Physical operation, other

Equipment

The Equipment terms are designed to be used in conjunction with one or more Chemical Process term or Physical Operation term, thus providing a range of equipment concepts equivalent to the range of processes and operations. In 2004 some specific equipment concepts were introduced to aid retrieval.

The codes in this facet have the format Jnnnn.

All Narrower terms (NT) autopost generic terms.

A special generic code, J9999, will be present in the online record whenever an Equipment code has been applied.

This enables you to search for the presence of Equipment without specifying the type of equipment.

Equipment

J2904 Construction materials of equipment

J2915 Equipment

J2926	NT	Autoclaves
J7034	NT	Coating equipment (04)
J5812	NT	Cooler/Heat exchanger (04)
J6780	NT	Dryer (04)
		UF Spray dryer
J6611	NT	Equipment control devices (04)
		UF Devices which measure/control temperature, pressure, etc. during other processes
J8366	NT	Equipment for making packaging (04)
J5970	NT	Extruder (04)
J6804	NT	Filter (04)
		UF Breaker plate
J2937	NT	Fluidised bed reactor
J6337	NT	Material handling equipment (04)
		UF Inlet equipment, feeding units, dosers
		UF Outlet equipment, wind-up units
J6439	NT	Mixing unit (04)
		UF Mixing heads
		UF Kneader
J6440	NT	Moulding equipment (04)
		"For moulds use J2948 in addition"
J6484	NT	Injection moulder (04)
J6451	NT	Blow moulder (04)
J2948	NT	Moulds
		"Any mould used for polymer processing or polymerisation"
J2506	NT	Polymerisation reactor (04)
J2959	NT	Pumps
J2960	NT	Rollers
J2971	NT	Tubular reactor

Related terms in other facets:

N5958	Equipment cleaning [physical operations]
K9972	Fluidised bed [universal terms]

Properties

The Properties facet contains concepts arranged hierarchically in alphabetical order. The format of the codes in this facet is Bnnnn.

All the Narrower terms (NT) autopost the more generic term(s). Generic terms which are actually indexed, rather than autoposted, can be searched by adding '-R' to the end of the code; thus Optical properties which has been indexed should be searched using B4240-R. Searching B4240 will retrieve all references - indexed and autoposted.

A special generic code, B9999, will be present in the online record whenever a Properties code has been applied. This enables you to search for the presence of a Property without specifying the type of property.

These concepts are principally used to describe the properties of polymers, but they may be used for additives, catalysts and modifying agents when the property is important, for example, particle size of a filler.

The presence of an additive within a composition, will not automatically result in the indexing of the corresponding property. The Property codes will only be applied when the property is important.

Properties

B3009 Chemical effects on other materials

B3010 Degradability

B3021	NT	Biological degradability
	UF	Biodegradable
B3032	NT	Chemical degradability
B3043	NT	Degradability by detergents
B3054	NT	Degradability by foodstuffs
	UF	Degradability by beverages
B3065	NT	Degradability by oils
	UF	Degradability by fats
	UF	Degradability by greases
B3076	NT	Degradability by organic solvents
B3087	NT	Ionising radiation degradability
		“Use Ionising radiation universal terms as applicable”
B3098	NT	Light degradability
		“Use Light radiation universal terms as applicable”
B3101	NT	Oxygen degradability
B3112	NT	Ozone degradability
B3123	NT	Thermal degradability
B3134	NT	Ultrasonic degradability
B3145	NT	Water degradability
B3156	NT	Weather degradability
		“Heat, light, oxygen and moisture degradation in combination over long time period”
	UF	Atmospheric degradability
B3167	NT	Degradation by other agents or effects
	SA	Discolour
	SA	Stability

B3178 Dependence of properties on temperature

“Can be used with Ambient, High or Low temperature universal terms”

UF	Temperature dependence of properties
SA	Thermal properties

B3189 Dependence of properties on time or frequency

UF	Time dependence of properties
UF	Frequency dependence of properties

B3190 Electrical properties

B3203	NT	Dielectric properties
B3214	NT	Dielectric constant
	UF	Dissipation factor
	UF	Permittivity
	UF	Power factor
B3225	NT	Dielectric strength
	UF	Dielectric breakdown
B3236	NT	Discharge effects
B3247	NT	Arc resistance
B3258	NT	Tracking
	UF	Water treeing

B3269	NT	Electrical conductivity
B3270	NT	Electrically insulating
	UF	Resistivity
B3281	NT	Electromagnetic shielding
B3292	NT	Electrostatics
B3305	NT	Antistatic
B3316	NT	Spark hazards
B3327	NT	Magnetic
B3338	NT	Piezoelectric
B3349	NT	Pyroelectric
B3350	NT	Semiconductivity
B3361	NT	Electrical property, other
	SA	Electroluminescence
	SA	Radiation opaque
	SA	Radiation sensitive/reactive
	SA	Radiation transparent
B3372		Environmental relationship
B3383	NT	Absorption
	UF	Adsorption
	UF	Swellability
B3394	NT	Oil absorption
	UF	Lipophilic
	UF	Plasticiser absorption
	UF	Solvent absorption
B3407	NT	Water absorption
	UF	Hydrophilic
	SA	Absorption of light
	SA	Hydrophilic-lipophilic balance
B3418	NT	Compatibility
B3429	NT	Colour fastness
B3430	NT	Dispersibility
B3441	NT	Hydrophilic-lipophilic balance
	UF	HLB
B3452	NT	Insolubility
B3463	NT	Water insolubility
B3474	NT	Lack of compatibility
	UF	Bleeding
	UF	Blooming
	UF	Sweating
B3485	NT	Repellence
	UF	Soil repellence
B3496	NT	Oil repellence
	UF	Lipophobic
	UF	Plasticiser repellence
	UF	Solvent repellence
B3509	NT	Water repellence
	UF	Hydrophobic
	UF	Water proof
B3510	NT	Solubility
B5630	NT	Organic solvent solubility (96)
B3521	NT	Water solubility

B5641 NT Acid solubility (96)
 B5652 NT Alkali solubility (96)

B3532 NT Storage stability
 UF Pot life
 UF Shelf life

B3543 Flammability

UF Inflammability
 SA Non-flammability

B3554 Flow properties

B3565 NT Extrusion behaviour
 UF Die swell
 UF Extrusion defects
 B3576 NT Flow birefringence
 B3587 NT Grease viscosity
 UF Oil viscosity
 UF Wax viscosity
 B3598 NT Latex viscosity
 B3601 NT Melt flow index
 UF Melt flow rate
 UF MFI
 B3612 NT Melt viscosity
 UF High shear melt viscosity
 UF Melt elasticity
 UF Mooney plasticity
 UF Mooney viscosity
 B3623 NT Mouldability
 UF Processability
 B3634 NT Organosol viscosity
 B3645 NT Paste viscosity
 B3656 NT Powder flow
 B3667 NT Scorch
 UF Mooney scorch
 B3678 NT Solution viscosity
 UF Inherent viscosity
 UF Intrinsic viscosity
 UF Relative viscosity
 UF Reduced viscosity
 UF Specific viscosity
 B3689 NT Thixotropic properties

B3690 Impurity

B3703 NT Catalyst content
 UF Ash content
 B3714 NT Moisture content
 B3725 NT Monomer content
 B3736 NT Solvent content
 SA Purity

B3747 Mechanical properties

B3758	NT	Dimensional stability
	UF	Warpage
B3769	NT	Antipilling resistance
B3770	NT	Crease resistance
	UF	Wash-wear properties
	SA	Elastic memory
B3781	NT	Friability
B3792	NT	Hardness
	UF	Barcol hardness
	UF	Rockwell hardness
	UF	Shore hardness
B3805	NT	Machinability
	UF	Punchability
B3816	NT	Scratch resistance
B3827	NT	Softness
B3838	NT	Stress-strain properties
	UF	Viscoelasticity
B3849	NT	Cracking
	UF	Crazing
	UF	Fracture surfaces
B3850	NT	Environmental stress cracking
B3861	NT	Stress cracking
B3872	NT	Creep and creep recovery
	UF	Cold flow
	UF	Compression set
	UF	Permanent set
	UF	Solid flow
B3883	NT	Drawability in solid state
	UF	Necking
B3894	NT	Elastic memory
	UF	Shape memory
B3907	NT	Elongation
B3918	NT	Fatigue
	UF	Flex-life
	UF	Folding endurance
B3929	NT	Green strength of rubber
B3930	NT	Rigidity properties
	UF	Compliance
	UF	Elasticity
	UF	Elastic modulus
	UF	Secant moduli
B3941	NT	Bulk modulus
	UF	Compressibility
B3952	NT	Compression modulus
B3963	NT	Dynamic mechanical properties
	UF	Coefficient of restitution
	UF	Vibration measurements

B3974		NT	Acoustic properties
B3985			NT Sound absorbing
B3996			NT Sound wave velocity
B4002		NT	Dynamic loss properties
			UF Damping
			UF Heat build-up
			UF Hysteresis
			UF Internal friction
			UF Mechanical losses
			SA Fatigue
			SA Sound absorbing
B4013		NT	Dynamic modulus
B4024		NT	Resilience
			UF Rebound resilience
B4035		NT	Flexibility
			UF Fabric drapability
B4046		NT	Flexural modulus
B4057		NT	Poisson's ratio
B4068		NT	Shear modulus
			UF Modulus of rigidity
			UF Torsion modulus
B4079		NT	Stiffness
			UF Rigidity
B4080		NT	Tensile modulus
			UF Percentage modulus
			UF Young's modulus
B4091	NT		Strength
B4104		NT	Brittleness
B4115		NT	Bursting strength
B4126		NT	Compressive strength
B4137		NT	Ductility
B4148		NT	Flexural strength
			UF Bending strength
			UF Cross-breaking strength
B4159		NT	Impact strength
B4160		NT	Shear strength
B4171		NT	Tensile strength
			UF Knot strength
			UF Tenacity
B4182		NT	Tear strength
			UF Puncture resistance
B4193		NT	Toughness
B4206	NT		Stress relaxation
B4217	NT		Stress/strain curves
B4228	NT		Yield point
B4239	Non-flammability		
	SA		Flammability

B4240 Optical properties

B4251	NT	Absorption of light "Use Light radiation universal terms as applicable"
B4262	NT	Colour UF Colourless
B4273	NT	Discolour
B4284	NT	Electro-optical UF Kerr effects
B5696	NT	Electroluminescence (04)
B4295	NT	Haze UF Distortion on transmission
B4308	NT	Luminescence UF Fluorescence UF Phosphorescence
B4319	NT	Magneto-optical
B4320	NT	Optical activity
B4331	NT	Optically anisotropic UF Liquid crystal properties UF Mesomorphic UF Thermotropic
B4342	NT	Optical polarity
B4353	NT	Photochromic
B4364	NT	Photoelasticity
B4375	NT	Radiation opaque "Use Radiation universal terms as applicable"
B4386	NT	Radiation sensitive/reactive "Use Radiation universal terms as applicable" SA Radiation sensitive photographic polymers [applications]
B5663	NT	Radiation translucent (96) "Use Radiation universal terms as applicable"
B4397	NT	Radiation transparent "Use Radiation universal terms as applicable"
B4400	NT	Reflectivity UF Mattress distortion on reflection UF Scattering on reflection
B4411	NT	Gloss UF Lustre
B4422	NT	Matt
B4433	NT	Pearlescence UF Iridescence
B4444	NT	Refractive index UF Double refraction UF Optical birefringence
B5674	NT	Second order nonlinearity (96)
B4455	NT	Optical property, other

B4466 Physiological properties

B4477	NT	Non-toxic effect on non-human organisms SA Toxic effect on non-human organisms
B4488	NT	Non-toxic to humans UF Biocompatible

		UF	Non-thrombogenic
		SA	Toxicity to humans
B4499	NT		Smell
		UF	Odour
		UF	Odourless
B4502	NT		Taste
B4513	NT		Toxic effect on non-human organisms
		SA	Non-toxic effect on non-human organisms
B4524	NT		Toxicity to humans
		UF	Carcinogenic
		UF	Dermatitic
		SA	Non-toxic to humans
B4535	Purity		
		SA	Impurity
B4546	Smoke generation		
		SA	Smoke suppression
B4557	Smoke suppression		
		SA	Smoke generation
B4568	Stability		
		UF	Ageing resistance
B4579	NT		Biological stability
B4580	NT		Chemical resistance
B4591	NT		Corrosion resistance
B4604	NT		Ionising radiation stability
			“Use Ionising radiation universal terms as applicable”
B4615	NT		Light stability
			“Use Light radiation universal terms as applicable”
B4626	NT		Organic solvent resistance
B4637	NT		Oxygen stability
B4648	NT		Ozone stability
B4659	NT		Stability to detergents
B4660	NT		Stability to foodstuffs
		UF	Stability to beverages
B4671	NT		Stability to oils
		UF	Stability to fats
		UF	Stability to greases
B4682	NT		Thermal stability
		UF	Heat resistance
B4693	NT		Ultrasonic stability
B4706	NT		Water stability
		UF	Hydrolysis resistant
B4717	NT		Moisture resistance
B4728	NT		Weatherability
			“Heat, light, oxygen and moisture stability in combination over long time period”
		UF	Atmospheric stability
B4739	NT		Stability to other agents or effects
		SA	Degradability

B4740 Structural properties

B4751	NT	Acid number "The number of mg of KOH equivalent to the acidity present in 1 gm of resin"
		SA Hydroxy number
B4762	NT	Bond properties
		UF Bond polarisability
		UF Dipole moments
		UF Force constants
		UF Refractivity
B4773	NT	Crystalline properties
B4784	NT	Amorphous
B4795	NT	Crystalline
B4808	NT	Crystal structure
		UF Chain repeat distance
		UF Electron diffraction patterns
		UF Unit cell dimensions
		UF X-ray diffraction spacings
B4819	NT	Rates of crystallisation and melting
		UF Kinetics of crystallisation and melting
B4820	NT	Size, shape, arrangement of crystalline phase
		SA Linkage
B4831	NT	Density
B4842	NT	Bulk density
B4853	NT	Diffusion properties
B4864	NT	Impermeability
B4875	NT	Permeability
B4886	NT	Semipermeability
B4897	NT	Heat set
		SA Non heat set
B4900	NT	Hydroxy number
		SA Acid number
B4911	NT	Inter and intra molecular forces
		UF Chain flexibility
		UF Cohesive energy density
		UF Steric hindrance
B4922	NT	Linkage
B4933	NT	Random
B4944		UF Atactic
	NT	Stereoregular
B4955		NT Isotactic
B4966		NT Syndiotactic
		SA Crystalline properties
B4977	NT	Molecular properties
B4988	NT	Curable
B4999		NT Self-curable
B5005	NT	Degree of branching
		UF Branching distribution
		SA Dendrimer"
B5016	NT	Degree of crosslinking
		UF Reversion crosslinking
B5027		NT Uncrosslinked

			UF	Unvulcanised
B5038	NT	Degree of types of polymer structure		
B5049		NT	1,2 or 3,4 diene polymer	
B5050		NT	1,4 diene polymer	
B5061		NT	Cis polymer"	
B5072		NT	Trans polymer	
B5083	NT	Degree of unsaturation		
		UF	Iodine value of polymer	
B5094	NT	Molecular weight		
		UF	K value	
		UF	Polymerisation degree	
B5107	NT	Molecular weight distribution		
B5118		NT	Polydispersity	
		UF	Multi-modal	
B5129	NT	Rate of crosslinking		
B5130	NT	Non heat set		
		SA	Heat set	
B5141	NT	Non-porous		
		SA	Porous	
B5152	NT	Oriented		
B5163		NT	Biaxially oriented	
B5174		NT	Uniaxially oriented	
		SA	Unoriented	
B5185	NT	Particles properties		
B5196		NT	Particle shape	
B5209		NT	Particle size	
		UF	Particle size distribution	
B5210		NT	Particle structure	
B5221"	NT	Porous		
		SA	Non-porous	
B5232	NT	Resonance		
		UF	Electron spin	
		UF	NMR	
B5243	NT	Thickness		
B5254		NT	Denier	
B5265	NT	Unoriented		
		SA	Oriented	

B5276 Surface properties

B5287	NT	Abrasion resistance		
		UF	Wear resistance	
B5298	NT	Adhesive properties		
B5301		NT	Adhesiveness	
		UF	Tack	
B5312		NT	Heat-seal strength	
		UF	Weld strength	
B5323		NT	Lack of adhesion	
		UF	Non-tack	
B5334		NT	Strippability	
		UF	Peelability	
B5345	NT	Blocking		

		UF	Cling
		SA	Non-blocking
B5356	NT		Dyeability
		UF	Colour receptiveness
		UF	Printability
B5367	NT		Friction
B5685	NT		Non-blocking (96)
		SA	Blocking
B5378	NT		Surface irregularities
B5389	NT		Surface smoothness
B5390	NT		Surface tension
B5403	NT		Surface treated
B5414		NT	Coated
B5425		NT	Coated with metal
		UF	Metallised
B5436		NT	Coated with non-polymer
B5447		NT	Coated with polymer
B5458		NT	Embossed
B5469		NT	Etched
B5470		NT	Polished
B5481		NT	Printed
B5492		NT	Surface treated, other

B5505 Thermal properties

B5516	NT		Specific heat
B5527	NT		Thermal conductivity
B5538	NT		Thermal expansion
B5549	NT		Thermally insulating
B5550	NT		Thermal shrinkage
B5561	NT		Thermal shock resistance
		UF	Heat shock resistance
	SA		Dependence of properties on temperature

B5572 Transition points

B5583	NT		Differential thermal analysis
		UF	DTA
B5594	NT		Heat distortion point
B5607	NT		Melting point
B5618	NT		Rubber/glass transition point
B5629	NT		Softening point
		UF	Vicat softening point

Applications

The Applications facet contains a wide range of application concepts arranged hierarchically in alphabetical order.

The format of the Applications codes is Qnnnn.

All the Narrower terms (NT) autopost the more generic term(s). Generic terms which are actually indexed, rather than autoposted, can be searched by adding '-R' to the end of the code; thus searching Adhesives which has been indexed should be searched using Q6644-R. Searching Q6644 will retrieve all references - indexed and autoposted.

See Also (SA) terms, which relate to concepts in a different facet have the facet indicated in brackets after the term.

A special generic code, Q9999, will be present in the online record whenever an Applications code has been applied. This enables you to search for the presence of an Application without specifying the type of application.

Indexing Conventions:

In photographic patents, additives are only indexed when they are additives to the polymer, rather than components of the photographic composition.

Magnetic material in magnetic recording compositions is not indexed unless it is polymeric.

Applications

Q6600 Abrasive compositions

UF	Abrasive paper
UF	Grinding wheels
UF	Sandpaper

Q9370 Absorbents (96)

"Use with properties as appropriate"

SA	Cleaning materials
SA	Medical use
SA	Pollution control

Q6611 Acoustic use

Q6622	NT	Acoustic insulation
	UF	Sound proofing
	SA	Electro-acoustic use
	SA	Musical instruments
	SA	Recording media

Q6633 Adhesive tape

Q6644 Adhesives

Q6655	NT	Anaerobic adhesive
Q6666	NT	Hot melt adhesive
Q6677	NT	Pressure sensitive adhesive
Q6688	NT	Thermosetting adhesive
	SA	Abrasive compositions
	SA	Adhesive tape
	SA	Binders
	SA	Sealants

Q6699 Aerosol compositions

SA	Aerosol containers
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Q6702 Agriculture

	UF	Horticulture
Q6713	NT	Cloches
Q6724	NT	Fertilisers
	UF	Fertilizers
Q6735	NT	Greenhouses
Q6746	NT	Herbicides
Q6757	NT	Mulch
Q6768	NT	Agriculture, other
	SA	Mariculture
	SA	Pesticide
	SA	Veterinary use

Q6779 Armaments

SA	Explosives
SA	Military use
SA	Propellents
SA	Rockets

Q6780 Barrier layers

“Where surface(s) is specified see interface terms”

SA	Coatings
SA	Impermeability [properties]
SA	Laminates
SA	Linings
SA	Tie layers

Q6791 Binders**Q6804 Bookbinding****Q6815 Brushes****Q6826 Buildings**

Q6837	NT	Building fittings
		SA Doors
		SA Window frames
Q6848	NT	Flooring
Q6859	NT	Rainwater goods
		UF Guttering
Q6860	NT	Roofing
Q6871	NT	Sanitary ware
		UF Baths
		UF Basins
		UF Lavatory ware
Q6882		NT Lavatory cisterns
Q6893	NT	Walls and coverings
		UF Ceilings
		UF Wallpaper
	SA	Acoustic insulation
	SA	Civil engineering
	SA	Glazing
	SA	Solar heat collectors
	SA	Thermal insulation

Q6906 Carpets

SA	Textiles
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Q6917 Catalysts

UF	Catalyst supports
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Q6928 Ceramics use

“Polymer used in; includes polymer used in glass, but excludes polymer coatings on ceramics and glass”

Q6939 Chemical engineering

Q6940	NT	Heat exchange devices
		SA Solar heat collectors
Q6951	NT	Water treatment
		UF Water treatment compositions
Q6962		NT Scale inhibiting compositions
Q6973	NT	Chemical engineering, other

Q6984 Chemical reagents

Q6995 Civil engineering

Q7001	NT	Concrete
		UF Cement compositions
Q7012	NT	Road compositions
		UF Paving
		UF Runway compositions
Q7023	NT	Civil engineering, other
		SA Earth consolidation
Q7034		Cleaning materials
		“Including wipes and wiping materials”
		UF Cleaning compositions
Q7045	NT	Detergents
		UF Fabric conditioners
		SA Absorbants
		SA Disinfectant
		SA Polyelectrolytes
		SA Surfactant
		SA Toilet requisites

Q7056 Clothing

Q7067	NT	Footwear
		UF Boots
		UF Shoes
Q7078	NT	Gloves
Q7089	NT	Hosiery
		UF Socks
		UF Stockings
		UF Tights
Q7090	NT	Protective clothing
		UF Eyeshields
		UF Goggles
		UF Helmets
Q7103	NT	Clothing, other
		SA Fasteners
		SA Textiles

Q7114 Coatings

“Where surface(s) is specified see interface terms”

Q7125	NT	Antifouling coating/paint
Q7136	NT	Corrosion prevention coating/ paint
Q7147	NT	Gel coatings
Q7158	NT	Paints
Q7169		NT Aqueous paints
Q7170		NT Solvent based paints
		UF Lacquers
		UF Varnishes
Q7181	NT	Polishes
Q7192	NT	Primer coating
Q7205	NT	Release coatings
Q7216	NT	Sizes
		“Only used for external sizes”
Q7227	NT	Strippable coatings

Q7238	NT	Thixotropic coating/paints
	UF	Non-drip paint
	SA	Laminates
	SA	Linings
	SA	Masking compositions
Q7249		Composite board
	UF	Chipboard
	UF	Fibreboard
	UF	Hardboard
	UF	Plywood
	SA	Decorative laminates
Q7250		Controlled release devices
	UF	Controlled release compositions
Q7261		Dental use
	SA	Dental toilet requisites
	SA	Medical use
Q7272		Disinfectant
Q7283		Display
	UF	Advertising
Q7294		Disposable use
Q7307		Doors
		Drums
		SEE Tanks
		SEE Musical instruments
Q7318		Earth consolidation
	UF	Geotextiles
Q7329		Educational devices
	UF	Models
Q7330		Electrical engineering
Q7341	NT	Batteries
	UF	Electrical accumulators
	UF	Storage batteries
Q7352	NT	Cable sheathing
	UF	Electrical cable coatings
	UF	Electrical wire coatings
	SA	Electrical insulation
Q7363	NT	Capacitors
	UF	Condensers
Q7374	NT	Electrical insulation
Q7385	NT	Insulation tape
Q7396	NT	Electrochemical cells
	UF	Electrolytic cells
	UF	Electrophoresis cells
Q7409	NT	Electrodes

Q9381	NT	Electro-magnetic shielding applications (96) "Including radio-wave absorbers and reflectors"
Q7410	NT	Fuel cells
Q7421	NT	Magnetic devices
Q7432	NT	Electric generator
Q7443	NT	Electric motor
	SA	Magnetic recording media
Q9392	NT	Piezoelectric devices (96)
Q7454	NT	Printed circuits
Q7465	NT	Resistors
Q7476	NT	Semiconductor devices
	UF	Integrated circuits
Q7487	NT	Waveguides
Q7498	NT	Electrical engineering, other
	SA	Electro-acoustic use
	SA	Electro-optical use
	SA	Encapsulated article
	SA	Heat and temperature applications
	SA	Radomes
	SA	Recording media
Q7501	Electro-acoustic use	
	UF	Microphones
	UF	Speakers
	SA	Acoustic use
Q7512	Electro-optical use	
	UF	Cathode ray tubes
	UF	Light Emitting Diodes (LED)
	UF	Solar cells
Q9472	NT	Electroluminescent Devices (04)
	UF	Organic Light Emitting Diodes (OLED)
	UF	Polymer Light Emitting Diodes (PLED)
Q7523	Encapsulated article	
	SA	Microcapsule [shape & form]
	Engineering	
	SEE	Chemical engineering
	SEE	Civil engineering
	SEE	Electrical engineering
	SEE	Mechanical engineering
	SEE	Nuclear engineering
Q7534	Explosives	
	SA	Propellents
Q7545	Fancy goods	
	UF	Jewellery
	UF	Ornaments
Q7556	Fasteners	
Q7567	Filters	

Q7578 Fishing**Q7589 Food**

Q7590	NT	Food additive
	SA	Cooking utensils

Q7603 Friction materials

Q7614	NT	Brakes
Q7625	NT	Clutches

Q7636 Fuels

UF	Fuel additives
SA	Propellents

Q7647 Functional fluids

UF	Hydraulic fluids
SA	Fuels
SA	Lubricants

Q7658 Glazing

“Polymer used in or with glass or as a substitute for glass in windows, windscreens etc”

UF	Skylights
UF	Windows
UF	Windshields
UF	Windscreens
SA	Window frames

Q7669 Heat and temperature applications

UF	Heat generating materials
SA	Heat exchange devices
SA	Solar heat collectors
SA	Thermal insulation

Q7670 Hinges**Q7681 Household use**

Q7692	NT	Cabinets and housings
	UF	Radio cabinets
	UF	Telephone housings
	UF	TV cabinets
Q7705	NT	Cooking utensils
	UF	Mixing bowls
	UF	Pan scrubbers
Q7716	NT	Furniture
Q7727	NT	Refrigerator use
Q7738	NT	Tableware
	UF	Crockery
	UF	Cutlery
Q7749	NT	Household use, other
	SA	Brushes
	SA	Carpets
	SA	Sanitary ware
	SA	Upholstery

Q7750 Immobilised enzymes

UF Immobilized enzymes
SA Microbiology

Q7761 Inflatable structures

SA Tyres

Ink

SEE Pigment/colo(u)rant system (04)
SEE Printing inks
SEE Writing inks

Insulation

SEE Acoustic insulation
SEE Electrical insulation
SEE Thermal insulation

Q7772 Ion exchange resins**Q7783 Labels****Q7794 Laboratory use**

Q7807 NT Chromatography
SA Measuring and testing equipment

Q7818 Laminates

“Where surface(s) is specified see interface terms”

Q7829 NT Decorative laminates
SA Barrier layers
SA Coatings
SA Linings
SA Tie layers

Q9416 Leather treatment (96)

“Polymer use in the treatment of natural leather”

SA Coatings
SA Surfactant
SA Synthetic leather
SA Leather interface [universal terms]

Q7830 Linings

“Where surface(s) is specified see interface terms”

SA Barrier layers
SA Coatings
SA Laminates
SA Tie layers

Q7841 Lubricants

SA Functional fluids
SA Viscosity modifiers

Q7852 Mariculture

UF Fish farming
SA Fishing

Q7863 Masking compositions

UF Masking tape
SA Resists

Q7874 Measuring and testing equipment**Q7885 Mechanical engineering**

Q7896 NT Bearing surfaces
UF Gears
Q7909 NT Belts
UF Conveyor belts
Q7910 NT Engines
UF Engine components
UF Internal combustion engines
UF Jet engines
SA Transport
Q7921 NT Mechanical tools
Q7932 NT Moulds
SA Shell mouldings
Q7943 NT Shell mouldings
UF Core binding
Q7954 NT Shock absorber
Q7965 NT Valves
UF Diaphragms
Q7976 NT Mechanical engineering, other
SA Friction materials
SA Rollers
SA Seals

Q7987 Medical use

UF Surgical use
Q9427 NT Birth control devices (96)
Q7998 NT Diagnosis
UF Pathology
Q8004 NT Diapers
UF Tampons
Q8015 NT Medical dressings
"Including casts, splints"
UF Bandages
Q8026 NT Medical equipment
UF Catheters
UF Syringes
Q8037 NT Medicines
UF Pharmaceuticals
Q8048 NT Protheses
SA Lenses
Q8059 NT Medical use, other
SA Dental use
SA Disinfectant
SA Veterinary use

Q8060 Membrane

UF	Dialysis membrane
UF	Reverse osmosis membrane
UF	Ultrafilter
UF	Ultrafiltration membrane

Q8071 Metallurgy**Q8082 Microbiology**

UF	Culturing bacteria
UF	Genetic engineering
SA	Immobilised enzymes

Q9438 Military use (96)

“Used for defensive military applications, including camouflage”

SA	Armaments
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Q8093 Mining

Q8106	NT	Drilling fluid
	UF	Drilling mud
Q8117	NT	Well cementing
	UF	Permeability reducers
	UF	Well plugging
Q8128	NT	Well stimulation
	UF	Displacement techniques
	UF	Well flooding
Q8139	NT	Mining, other
	SA	Belts

Q8140 Musical instruments**Q8151 Nautical**

SA	Fishing
SA	Water transport

Q8162 Nuclear engineering**Q8173 Office use**

Q8184	NT	Drawing office material
	UF	Tracing paper
Q9449	NT	Office automation equipment (96)
		“Includes computers, keyboards etc.”
	UF	OA Equipment
Q8195	NT	Pressure sensitive recording materials
Q8208	NT	Carbon paper
Q8219	NT	Carbonless paper
Q8220	NT	Typewriter ribbon
Q8231	NT	Writing devices
	SA	Writing inks
Q8242	NT	Writing inks
Q8253	NT	Office use, other

Q8264 Optical use

Q8275	NT	Implosion guards
Q8286	NT	Lenses
Q8297	NT	Contact lenses
Q8300	NT	Spectacle lenses
Q8311	NT	Lighting and fittings
Q8322	NT	Liquid crystal devices
Q8333	NT	Mirrors
Q8344	NT	Optical fibres and cables systems
Q9450	NT	Optical filters (96)
Q8355	NT	Optical use, other
	SA	Recording media

Q8366 Packaging

Q8377	NT	Cling film
Q8388	NT	Closures
	UF	Tear strips
Q8399	NT	Containers
Q8402	NT	Aerosol containers
	SA	Aerosol compositions
Q8413	NT	Bags
	UF	Sacks
Q8424	NT	Blister packs
Q8435	NT	Bottles
	UF	Squeeze bottles
Q8446	NT	Boxes
Q8457	NT	Cans
Q8468	NT	Cartons
Q8479	NT	Crates
Q8480	NT	Tanks
Q8491	NT	Tubs
Q8504	NT	Cushion packaging
	UF	Bubble mat
Q8515	NT	Pallets
Q8526	NT	Sachets
Q8537	NT	Shrink packages
Q8548	NT	Strapping
Q8559	NT	Stretch film
Q8560	NT	Wrapping film
Q8571	NT	Packaging, other
	SA	Labels
	SA	Laminates

Q8582 Paper

“Polymer used in”

Q8593 Pesticide

UF Insecticide

Q8606 Photography

Q8617	NT	Electrophotography
Q8628		NT Photoconductors
Q8639		NT Toners
Q8640	NT	Holography
Q8651	NT	Photographic equipment
Q8662	NT	Photographic substrate
		UF Subbed film
Q8673	NT	Radiation sensitive photographic polymers
		"Use Radiation universal terms as applicable"
Q8684		NT Resists
		SA Radiation sensitive/reactive [properties]
Q8695	NT	Thermography
Q8708	NT	Photography, other
		SA Binders

Q9483 Pigment/colo(u)rant system (04)

"Polymer used in/as pigment/colo(u)rant system with use unspecified. Excluding inks, paints"

Q8719 Pipework

Q8720	NT	Plumbing
		UF Pipe fittings
Q8731	NT	Pipes
		UF Fluid conduction
		UF Hosepipes

Q8742 Plating bath additives**Q8753 Pollution control****Q8764 Polyelectrolytes**

	UF	Flocculants
	SA	Detergents

Q8775 Printing

Q8786	NT	Ink jet printing
Q8797	NT	Printing inks
Q8800	NT	Printing plates
		UF Stencils
Q9494	NT	Substrate (04)
		UF Receiving Layer
Q8811	NT	Thermal head printing
Q8822	NT	Transfer sheets and films
Q8833	NT	Printing, other
		SA Pressure sensitive recording materials
		SA Rollers
		SA Thermography

Q8844 Propellents

"Not used for aerosol propellents"

	SA	Aerosol compositions
	SA	Fuels

Q9405 Radomes (96)

Q8855 Recording media

“Including allied components e.g. cassette cases”

Q8866	NT	Gramophone records
Q8877	NT	Magnetic recording media
	UF	Magneto-optical recording media
Q8888	NT	Magnetic recording discs
	UF	Floppy discs
Q8899	NT	Magnetic recording tapes
Q8902		NT Audio tapes
Q8913		NT Video tapes
Q8924	NT	Optical recording media
	UF	Optical storage
	UF	Optical retrieval
Q8935	NT	Optical discs
	UF	CDR
	UF	CDRW
	UF	DVD
Q8946		NT Compact discs
Q8957		NT Video discs
	SA	Photography
	SA	Printing

Q9507 Release Sheets (04)

SA Release Coatings

Q8968 Renewable energy devices

Q8979	NT	Solar heat collectors
	UF	Solar panels
	SA	Electro-optical use

Q8980 Rockets

SA Armaments
SA Space vehicles

Q8991 Rollers**Q9007 Sealants**

UF Caulking compositions
UF Sealing compositions

Q9018 Seals

UF Gaskets
UF Washers
SA Closures

Q9029 Security use**Q9030 Self-testing use**

UF Self-monitoring use
UF Tamper evident use

Q9041 Spectacle frames

SA Spectacle lenses

Q9052 Sports

Q9063	NT	Balls
Q9461	NT	Golf (96)
Q9074	NT	Racquets
		UF Golf clubs
		UF Bats
Q9085	NT	Skiing
Q9096	NT	Sports areas
Q9109	NT	Sports, other
		SA Fishing
		SA Toys

Q9110 Surfactant

SA	Detergents
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Q9121 Synthetic leather**Tape**

SEE	Adhesive tape
SEE	Magnetic recording tapes
SEE	Masking compositions
SEE	Typewriter ribbon

Q9132 Textiles

SA	Carpets
SA	Clothing

Q9143 Thermal insulation

UF	Lagging
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Q9154 Tie layers

“Where surface(s) is specified see interface terms”

SA	Barrier layers
SA	Coatings
SA	Laminates
SA	Linings

Q9165 Toilet requisites

Q9176	NT	Toilet requisites for skin
		UF Cosmetics
Q9187	NT	Toilet requisites for hair
		UF Hair shampoo
		UF Wigs
Q9198	NT	Dental toilet requisites
		UF Toothpaste

Q9201 Toys**Q9212 Transport**

Q9223	NT	Aircraft
Q9234	NT	Ground vehicles
		UF Cars
Q9245	NT	Space vehicles
		SA Rockets

Q9256	NT	Tyres
	UF	Inner tubes
Q9267		NT Bonding aid for tyre reinforcement
Q9278		NT Retreaded tyres
Q9289	NT	Vehicle parts
	UF	Bumpers
	UF	Wiper blades
Q9290	NT	Water transport
	SA	Nautical
Q9303	NT	Transport, other
	SA	Carpets
	SA	Glazing
	SA	Upholstery

Q9314 Travel goods

UF	Handbags
UF	Luggage
UF	Trunks
UF	Wallets

Q9325 Upholstery**Q9336 Veterinary use****Q9347 Viscosity modifiers****Q9358 Window frames****Q9369 Polymer use, other**

About Clarivate Analytics

Clarivate Analytics is the global leader in providing trusted insights and analytics to accelerate the pace of innovation. Building on a heritage going back more than a century and a half, we have built some of the most trusted brands across the innovation lifecycle, including *Web of Science*, *Cortellis*, *Derwent*, *CompuMark*, *MarkMonitor* and *Techstreet*. Today, *Clarivate Analytics* is a new and independent company on a bold entrepreneurial mission to help our clients radically reduce the time from new ideas to life-changing innovations.

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