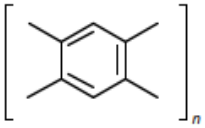
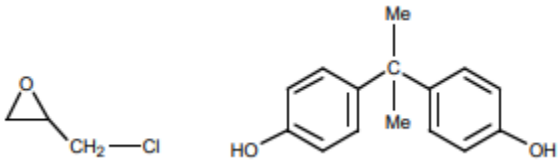
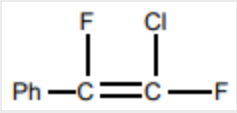
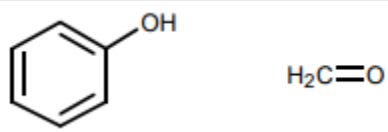
CAS STNEXT®

Polymer Class Terms in the Registry File
REFERENCE CARD

SEARCH Field: /PCT
DISPLAY Field: PCT (Included in IDE, FIDE, and ALL)
Proximity: (L) same as AND

Class Term	Code	Type of Polymer Retrieved
Amino Resin	**AR**	**Condensation polymers of amines with aldehydes (mainly formaldehyde).** IN Formaldehyde, polymer with 1,5-pentanediamine (9CI) CM 1 CM 2 $H_2N-(CH_2)_5-NH_2$ $H_2C=O$
Chloropolymer	**CLPO**	**Monomer contains an acyclic C=C−Cl and has no atoms other than C, H, or Cl.** IN 1-Butene, 1-chloro-, homopolymer (9CI) CM 1 $H_3C-CH_2-CH=CH-Cl$
Double Strand	**DBLSTR**	**Uninterrupted sequence of rings with:** **(a) adjacent rings having one atom in common (spiro polymers), or** **(b) two or more atoms in common (ladder polymers), or** **(c) combinations of both features (ladder-spiro polymers).** IN Poly(1,2:4,5-benzenetetrayl) (9CI) 

Class Term	Code	Type of Polymer Retrieved
Epoxy Resin	**EP**	**Epihalohydrin polymers with a diol.** **Polymers of monomers containing two or more epoxy groups.** IN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane (9CI) CM 1 CM2 
Fluoropolymer	**FLPO**	**Monomer contains an acyclic C=C−F and has no atoms other than C, H, F, or Cl.** IN Benzene, (2-chloro-1,2-difluoroethenyl)-, homopolymer (9CI) CM 1 
Manual Component	**MANC**	**Polymers with one or more manually-registered components. PCT term assignment may be incomplete for these polymers.** IN Benzene, ethenyl-, polymer with PE 2136 (9CI) MF (C8 H8 . Unspecified)x CM 1 CM 2 CI PMS, MAN $H_2C=CH-Ph$ STRUCTURE DIAGRAM IS NOT AVAILABLE

Class Term	Code	Type of Polymer Retrieved
Manual Registration	**MANR**	**Manually-registered polymers (often identifiable only via tradenames).** **Polymers containing only manually-registered components.** IN Yupimer FRS 1 (9CI) MF Unspecified CI PMS, MAN STRUCTURE DIAGRAM IS NOT AVAILABLE
Phenolic Resin	**PR**	**Polymers of phenols with aldehydes.** IN Phenol, polymer with formaldehyde (9CI) CM1 CM2 
Polyacetylene	**PACT**	**Monomer contains a carbon-carbon acyclic triple bond.** IN 1-Pentyne, 4-methyl-, homopolymer (9CI) CM 1 i-Bu−C≡CH

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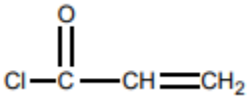
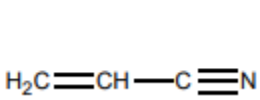
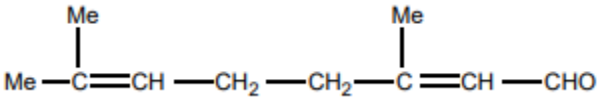
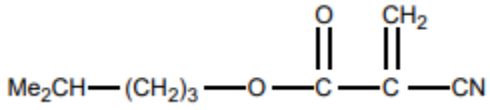
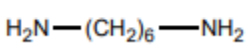
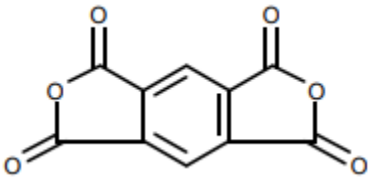
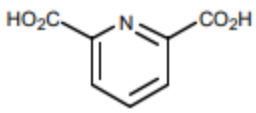
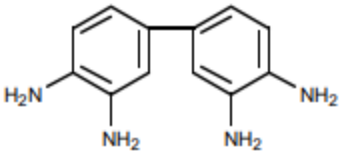
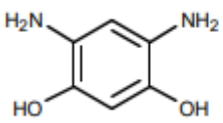
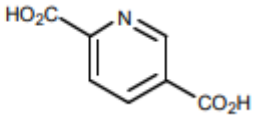
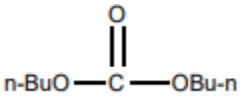
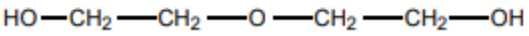
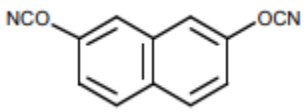
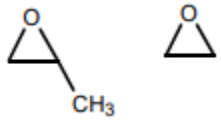
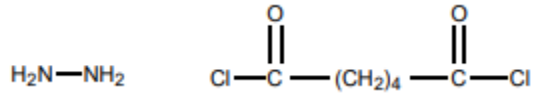
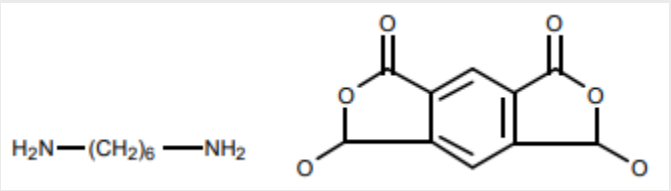
Polyacrylic	**PACR**	**Monomer contains an acyclic C=C−Y, where Y is either:** **(a) a carbon atom with at least two N, O, or S attached (e.g., CO_2H, CO_2R, $CH(OR)_2$, $CONH_2$, etc.)** IN 2-Propenoyl chloride, polymer with 2-propenenitrile (9CI) CM 1  CM 2  **(b) a carbon with a doubly bonded N, O, or S and a H attached (e.g., CHO, CHS, CHN, but not COC)** IN 2,6-Octadienal, 3,7-dimethyl-, homopolymer (9CI) CM 1  **(c) a CN group** IN 2,4-Pentadienenitrile, homopolymer (9CI) CM 1 $H_2C=CH-CH=CH-CN$ **(d) Only one group meeting the Y definition may be present on the C=C atoms, except that CN may be present if Y is not CN.** IN 2-Propenoic acid, 2-cyano-, 4-methylpentyl ester, homopolymer (9CI) CM 1 

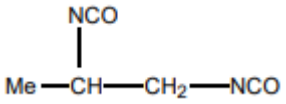
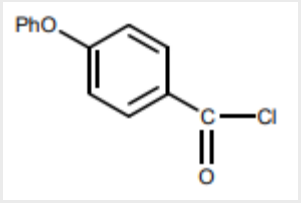
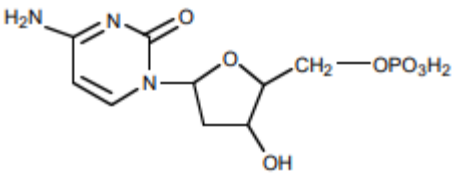
Class Term	Code	Type of Polymer Retrieved
Polyamic acid	**PAMA**	Polyamides containing a carboxy group (or thio analogs) adjacent to the amide linkage. IN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with 1,6-hexanediamine (9CI) CM 1 CM 2  
Polyamide	**PA**	**−CO−NH− amide linkages (or thio analogs) in the backbone.** IN Decanedioic acid, polymer with N,N'-dimethyl-1,6-hexanediamine (9CI) CM 1 CM 2 MeNH−$(CH_2)_6$−NHMe HO_2C−$(CH_2)_8$−CO_2H **EXCLUSIONS:** **Polymers formed from unsaturated amides (e.g., CH_3−CH=CH−CO−NH_2) by addition polymerization with resulting pendant amido groups.**
Polyamine	**PM**	**Unquaternized amino groups in the backbone.** IN 1,6-Hexanediamine, polymer with 1,2-dichloroethane (9CI) CM 1 CM 2 H_2N−$(CH_2)_6$−NH_2 Cl−CH_2−CH_2−Cl **EXCLUSIONS: Polyamines with quaternized amino groups in the backbone are considered Polyionenes.**

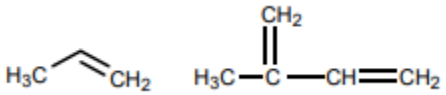
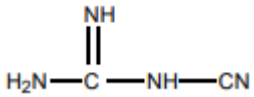
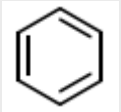
Class Term	Code	Type of Polymer Retrieved
Polyanhydride	**PANH**	**−CO−O−CO− anhydride linkages (or thio analogs) in the backbone.** IN Decanedioic acid, polymer with hexanedioic acid (9CI) CM 1 CM 2 $HO_2C-(CH_2)_4-CO_2H$ $HO_2C-(CH_2)_8-CO_2H$
Polyazomethine	**PAZM**	**−C=N− or −C=N−N=C− linkages in the backbone.** IN Pentanedial, polymer with 1,6-hexanediamine (9CI) CM 1 CM 2 $H_2N-(CH_2)_6-NH_2$ $H_2N-(CH_2)_3-CHO$
Polybenzimidazole	**PBI**	**Benzimidazole linkages in the backbone with the backbone running through both rings.** IN 2,6-Pyridinedicarboxylic acid, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) CM 1 CM2  

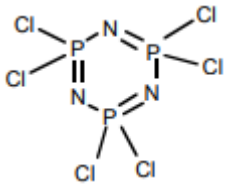
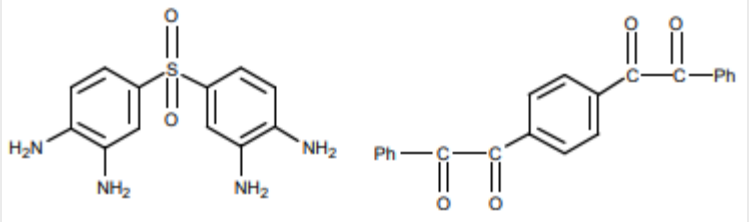
Class Term	Code	Type of Polymer Retrieved
Polybenzoxazole	**PBO**	**Benzoxazole linkages in the backbone with the backbone running through both rings.** IN 2,5-Pyridinedicarboxylic acid, polymer with 4,6-diamino-1,3-benzenediol (9CI) CM 1  CM 2 
Polycarbodiimide	**PCD**	**−N=C=N− carbodiimide linkages in the backbone.** IN Dodecane, 1,12-diisocyanato-, homopolymer (9CI) CM 1 OCN−$(CH_2)_{12}$−NCO
Polycarbonate	**PC**	**−O−CO−O− carbonate linkages (or thio analogs) in the backbone.** IN Carbonic acid, dibutyl ester, polymer with 2,2'-oxybis[ethanol] (9CI) CM 1  CM 2  **EXCLUSIONS: Polymers formed from unsaturated carbonate esters by addition polymerization with resulting pendant carbonate groups.**

Class Term	Code	Type of Polymer Retrieved
Polycyanurate	**PCY**	**Cyanurate linkages in the backbone.** IN Cyanic acid, 2,7-naphthalenediyl ester, homopolymer (9CI) CM 1 
Polyester	**PES**	**−CO−O− ester linkages in the backbone, alkyd resins.** IN Nonanoic acid, 9-hydroxy-, homopolymer (9CI) CM 1 $HO_2C-(CH_2)_8-OH$ **EXCLUSIONS: Polycarbonates. Polymers formed from unsaturated esters by addition polymerization with resulting pendant ester groups.**
Polyether	**PETH**	**−O− ether linkages in the backbone, polyoxymethylenes, polyoxyalkylenes, polyoxyarylenes, and polyoxyphenylenes.** IN Oxirane, methyl-, polymer with oxirane (9CI) CM 1 CM 2  **EXCLUSIONS: Polymers with pendant oxy groups formed by addition polymerization of unsaturated ethers.**

Class Term	Code	Type of Polymer Retrieved
Polyhydrazide	**PHZ**	–CO–NH–NH– hydrazide linkages (or thio analogs) in the backbone. IN Hexanedioyl dichloride, polymer with hydrazine (9CI) CM 1 CM 2 
Polyimide	**PI**	**–CO–N–O– imido linkages (or thio analogs) in the backbone.** IN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with 1,6-hexanediamine (9CI) CM 1 CM 2  **EXCLUSIONS: Polymers formed by addition polymerization of unsaturated imides with resulting pendant imido groups.**
Polyionene	**PION**	**Quaternary nitrogen atoms in the backbone.** IN 1,16-Hexadecanediamine, N,N,N',N'-tetramethyl-, polymer with 1,3-dibromopropane (9CI) CM 1 CM 2 $Me_2N–(CH_2)_{16}–NMe_2$ $Br–(CH_2)_2–(CH_2)_2–(CH_2)_2–Br$

Class Term	Code	Type of Polymer Retrieved
Polyisocyanurate	**PIR**	**s-Triazinetrione ring in the backbone.** IN Propane, 1,2-diisocyanato-, homopolymer (9CI) CM 1 
Polyketone	**PK**	**—CO— ketone groups (or thio analogs) in the backbone.** IN Benzoyl chloride, 4-phenoxy-, homopolymer (9CI) CM 1  **EXCEPTIONS: Polymers formed by addition polymerization of unsaturated ketones with resulting pendant ketone groups.**
Polynucleotide	**PNUC**	**—O—P(O)(OH) —O— linkages (or thio analogs) between nucleosides in the backbone.** IN 5'-Cytidylic acid, 2'-deoxy-, homopolymer (9CI) CM 1 

Class Term	Code	Type of Polymer Retrieved
Polyolefin	**POLF**	**Acyclic monomer with a C=C group. Monomer contains no atoms other than C or H.** IN 1,3-Butadiene, 2-methyl-, polymer with 1-propene (9CI) CM 1 CM 2 
Polyether	**OTHER**	**Polymers for which an algorithmic classification is uncertain.** IN Methane, chlorodiazo-, polymer with diazomethane (9CI) CM 1 CM 2 $ClCH_2N^+N^-$ $H_2CN^+N^-$
Polyether Only	**OTHERO**	**Polymers for which the term Polyether is posted and no other terms except Manual Component or Manual Registration are posted.** IN Guanidine, cyano-, homopolymer (9CI) CM 1 
Polyphenyl	**PPH**	**Direct linkages between phenylene rings in the backbone.** IN Benzene, homopolymer (9CI) CM 1 

Class Term	Code	Type of Polymer Retrieved
Polyphosphazene	**PPSZ**	—P=N— phosphazene linkages in the backbone. IN 1,3,5,2,4,6-Triazatriphosphorine, 2,2,4,4,6,6-hexachloro-2,2,4,4,6,6-hexahydro-, homopolymer (9CI) CM 1 
Polyquinoxaline	**PQ**	Quinoxaline linkages in the backbone, with the backbone running through both rings. IN Ethanedione, 1,1'-(1,4-phenylene)bis[2-phenyl-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) CM 1 CM 2 
Polystyrene	**PSTY**	**Monomer contains an acyclic C=C—Ph, where Ph is an isolated benzene ring with any substitution.** IN Benzene, ethenyl-, homopolymer (9CI) CM 1 H_2C=CH—Ph

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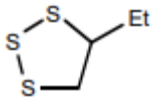
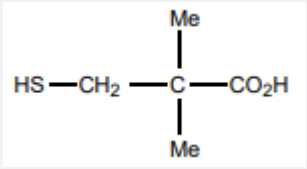
Polysulfide	**PSF**	**—Sn— linkages (n>1) in the backbone.** IN 1,2,3-Trithiolane, 4-ethyl-, homopolymer (9CI) CM 1 
Polysulfonamide	**PSA**	**—SO_2—NH— sulfonamide linkages in the backbone.** IN 1-Propanesulfonic acid, 3-(phenylamino)-, homopolymer (9CI) CM 1 $HO_3S=(CH_2)_3—NH—Ph$
Polysulfone	**PSU**	**—SO_2— sulfone groups in the backbone.** IN 1-Hexene, polymer with sulfur dioxide (9CI) CM 1 CM 2 O=S=O $H_2C=CH—Bu\text{-}n$
Polythioester	**PTES**	**Sulfur analogs of Polyesters containing —CS—S—, —CO—S—, or —CS—O— linkages.** IN Propanoic acid, 3-mercapto-2,2-dimethyl-, homopolymer (9CI) CM 1 

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Polythioether	**PTETH**	**Sulfur analogs of Polyethers containing −S− linkages.** IN 1,10-Decanedithiol, polymer with 1,4-dibromobutane (9CI) CM 1 CM 2 $HS-(CH_2)_{10}-SH$ $Br-(CH_2)_4-Br$
Polyurea	**PUA**	**Urea linkage −NH−CO−NH− (or thio analogs) in the backbone.** IN 1,4-Butanediamine, polymer with 1,4-diisocyanatobutane (9CI) CM 1 CM 2 $OCN-(CH_2)_4-NCO$ $H_2N-(CH_2)_4-NH_2$
Polyurethane	**PUR**	**−O−CO−NH− urethane linkages (or thio analogs) in the backbone.** IN 1,6-Hexanediol, 2,2,3,3,4,4,5,5-octafluoro-, polymer with 1,6-diisocyanatohexane (9CI) CM 1 CM 2 $OCN-(CH_2)_6-NCO$ $HO-CH_2-(CF_2)_4-CH_2-OH$

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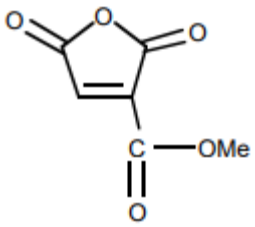
Polyvinyl	**PVIN**	**a) Monomer has an acyclic C=C with a ring or hetero atom no more than two atoms away from the C=C.** IN Acetic acid ethenyl ester, homopolymer (9CI) CM 1 AcO–CH=CH_2 **EXCLUSIONS:** **The benzene ring of a Polystyrene.** **The functional group of a Polyacrylic.** **(b) Monomer has an acyclic C=C that does not qualify for any other class.** IN 11,13-Octacosadienoic acid, homopolymer (9CI) CM 1 HO_2C–$(CH_2)_9$–CH=CH–CH=CH–$(CH_2)_{13}$–Me **(c) Maleic anhydride or maleimide or acyclic-substituted derivative thereof.** IN 3-Furancarboxylic acid, 2,5-dihydro-2,5-dioxo-, methyl ester, homopolymer (9CI) 

Class Term	Code	Type of Polymer Retrieved
(class name) FORMED	**(code) F**	**Additional entry for polymers in which the linkage described by the class term is the result of polymerization.** **EXCLUSIONS:** **FORMED is not indexed for:** **- Resin terms - Amino Resin, Epoxy Resin, Phenolic Resin** **- Addition polymer terms - Chloropolymer, Fluoropolymer, Polyacetylene, Polyacrylic, Polyolefin, Polystyrene, Polyvinyl** **- Manual Component, Manual Registration, Polyother, Polyother Only** **- Double Strand and Polynucleotide**