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STN Database Summary Sheet

CAS REGISTRYSM is the most authoritative collection of disclosed chemical substance information. Each substance record is identified by a unique CAS Registry Number[®].

Records may include CA index names, synonyms, molecular formulas, alloy composition tables, classes for polymers and protein and nucleic acid sequences, ring analysis data, and structure diagrams, all of which are searchable and displayable. Records may also contain super roles and document type information from CAPlusSM, experimental property data and tags, predicted property data, and experimental carbon-13 NMR, proton NMR, mass, and IR absorption spectra. Also displayable are the 10 most recent CA references citing the substance since 1907, the total number of records citing the substance in CAPlus and CASM, and the total number of records in CA for the nonspecific derivatives.

Left truncation is available in the Chemical Name Segment (/CNS), Editor Note (/ENTE), and Notes (/NTE) fields.

LREGISTRY is the companion training database for learning to use REGISTRY.

Coverage

- 1957 to the present, with additional substances going back to the early 1900s
- All types of inorganic and organic substances, including alloys, nucleic acid and protein sequences, coordination compounds, minerals, mixtures, polymers, salts, and high throughput screening (HTS) compounds
- Substances included in REGISTRY meet the following criteria:
 - Identified by CAS as coming from a reputable source, including but not limited to patents, journals, chemical catalogs, and selected substance collections on the web
 - Described in largely unambiguous terms
 - Characterized by physical methods or described in a patent document example or claim
 - Consistent with the laws of atomic covalent organization

Sources

- The CAS Registry System - the computer system that automatically identifies and catalogs all substance information that CAS selects from journal articles, patents, conference proceedings, and other published sources to include in *Chemical AbstractsTM* (CA)
- GenBank[®] (registered trademark of the U.S. Department of Health and Human Services) - a database repository containing millions of sequences
- Special collections of substance data such as substance information listed on various international, national, and state regulatory inventories and lists as well as web collections of substances to which CAS has assigned CAS Registry Numbers

File Data

- More than 37 million organic and inorganic substances; more than 60 million sequences (8/08)
- Updated daily
- Automatic current-awareness searches (SDIs) are run every two weeks.
- Automatic crossfile current-awareness searches (SDI XFILE) using a REGISTRY search profile are available using REGISTRY and CA, HCA, ZCA, CAPlus, HCAplus, or ZCAPlus and may be run weekly or biweekly (weekly is the default).

User Aids

- Search aids are available at www.cas.org/support/stngen/.
- Online Helps (HELP DIRECTORY lists all help messages available)
- STNGUIDE

Database Producer

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See www.cas.org/support/agents.html for worldwide representatives.

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REGISTRY

SEARCH and DISPLAY Field Codes

Fields that allow left truncation (/CNS, /ENTE, /NTE) are marked with an asterisk (*).

You can also search any REGISTRY search term including structures directly in CAplus using REG1stRY. To search a REGISTRY term in CAplus, enter the SEARCH command and your term followed by the REGISTRY field code, followed by /REG, e.g., SEARCH FENFLURAMINE/CN/REG. The REGISTRY search and crossover to CAplus are performed automatically, and only the final CAplus answer set L-number is shown. Enter HELP FIRST at an arrow prompt in CAplus for more information.

The POLYLINK command is available for more comprehensive searching of condensation polymers. Enter HELP POLYLINK at an arrow prompt for online information or refer to the STNote 30: Enhanced Polymer Searching in CAS Files (PDF).

The SEQLINK command is available for more comprehensive, CAS Registry Number-based searching of protein and nucleic acid sequences. Enter HELP SEQLINK at an arrow prompt for online information or refer to the STNote 31: Enhanced Sequence Searching in REGISTRY with SEQLINK (PDF).

Substance Data Fields

Search Field Name	Search Code	Search Examples	Display Codes
Basic Index (contains name fragments, molecular formula fragments, and Collective Index codes) (1)	None (or /BI)	S TOSYL S DIMETHYL ADIPATE S 6CI S 1,1(W)DICHLORO S C5H10BR2O2	AF, CN, IN, MF
CAS Registry Number	/RN	S 97-77-8/RN S 97-77-8	RN, AR, DR, PR
Class Identifier (codes or terms as a bound phrase)	/CI	S MXS/CI S ALLOY/CI	CI
Component Registry Number	/CRN	S 79-10-7/CRN	CRN
Definition	/DEF	S HYDROCARBONS/DEF	DEF
Entry Date (2)	/ED	S 20040101/ED	ED
Field Availability (codes or terms as a bound phrase)	/FA	S RSD/FA AND L5	Not displayed
File Segment (acronyms or single words)	/FS	S MATERIAL COMPOSITION/ FA S PROTEIN/FS S PS/FS S NUCLEIC/FS	FS
Number of References in the CA File (2)	/REF.CA	S L1 AND REF.CA<=10	REF
Number of References in the CA File for Non-Specific Derivatives (2)	/REF.CAD	S L3 AND 1/REF.CAD	REF
Number of References in the CAplus File (2)	/REF.CAPLUS	S L2 NOT REF.CAPLUS>10	REF
Polymer Class Term (code or text)	/PCT	S POLYAMINE/PCT S PM/PCT	PCT
Polymer Class Term Count (2)	/PCT.CNT	S 2-3/PCT.CNT	PCT
Registry Number Locator	/LC	S TSCA/LC S GENBANK/LC S L1 AND CA/LC	LC
Source of Registration	/SR	S CHEMICAL LIBRARY/SR	SR
Update Date (2)	/UP	S UP>=20040101	Not displayed

(1) Formula fragments searched in the Basic Index must be entered without spaces.

(2) Numeric search field that may be searched using numeric operators or ranges.

Nomenclature Fields

Search Field Name	Search Code	Search Examples	Display Codes
Chemical Name	/CN	S 1-CHLORO-1, 3-BUTADIENE/CN S INTERFERON .ALPHA.1?/CN S GENBANK M12334/CN	CN, IN
Chemical Name Segment * (1)	/CNS	S IMINO/CNS S ?QUAT?/CNS NOT AQUA	CN, IN
Editor Note * (1)	/ENTE	S ?ENZYM?/ENTE	ENTE
Heading Parent	/HP	S BENZOIC ACID/HP	CN, IN
Index Name Segment Heading Parent	/INS.HP	S METHYLETHYL/INS.HP	CN, IN
Index Name Segment NonHeading Parent	/INS.NHP	S ACRYLO/INS.NHP	CN, IN
Other Name Segment	/ONS	S ANILINE/ONS	CN

(1) With left truncation, the input term must contain at least 4 characters.

Molecular Formula Fields

Search Field Name	Search Code	Search Examples	Display Codes
Atom Count (1)	/ATC	S 5/ATC	Not displayed
Element Count (1)	/ELC	S 7-9/ELC	Not displayed
Element Count for Substance (1)	/ELC.SUB	S ELC.SUB>=8	Not displayed
Element Formula (2)	/ELF	S AL CO LA O/ELF	AF, MF
Element Ratio, xx (where xx = CH, CN, CO, HC, HN, HO, NC, NH, NO, OC, OH, or ON) (1)	/ELR.xx	S 3.1666667/ELR.CH S 1-2/ELR.CN S ELR.CO<=1	Not displayed
Element Symbol	/ELS	S B/ELS AND H/ELS	Not displayed
Element Symbol for Multicomponent Formula	/ELS.MCF	S (N (XA) P)/ELS.MCF	Not displayed
Formula Weight (1)	/FW	S 420-460/FW	Not displayed
Material Composition (3)	/MAC	S 1-5 ND/MAC	STR
Molecular Formula (4)	/MF	S C7H3BR2FO2/MF S C4H4O4.2NA/MF S C24 H37 OS P3/MF	AF, MF
Number of Components (1)	/NC	S F/ELS NOT NC>=2	Not displayed
Periodic Group	/PG	S B6/PG S LNTH/PG	Not displayed
Relative Composition	/RC	S FE.CR.NI/RC	Not displayed
Specific Element Count (1)	/Element Symbol	S 7/SI	Not displayed

(1) Numeric search field that may be searched using numeric operators or ranges.

(2) Formulas must be entered with spaces between the elements.

(3) Combined numeric and text field. Composition terms are numeric and may be searched using numeric operators or ranges. Component terms are text terms.

(4) Formulas may be entered with or without spaces.

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Ring Analysis Data Fields

Search Field Name	Search Code	Search Examples	Display Codes
Elemental Analysis for Ring System (and number of occurrences of EA in a component structure) (1)	/EA	S C4N-C5N/EA S 2 C3NO-C6/EA	RSD
Elemental Analysis for Smallest Ring (and number of occurrences of EAS in a ring system) (1)	/EAS	S C5NO4/EAS S >9 C6/EAS	Not displayed
Elemental Sequence for Ring System (and number of occurrences of ES in a component structure) (1)	/ES	S NCOC2-C6/ES S 1-3 O2C4/ES	RSD, SRSD
Elemental Sequence for Smallest Ring (and number of occurrences of ESS in a ring system) (1)	/ESS	S FE3/ESS S >=2 SC2SC2/ESS	Not displayed
Number of Ring Systems (2)	/NRS	S 7/NRS	Not displayed
Number of Ring Systems in a Component (2)	/CNRS	S 4-5/CNRS	Not displayed
Number of Rings (number of smallest rings) (2)	/NR	S 10/NR	Not displayed
Number of Rings in a Component (number of smallest rings) (2)	/CNR	S CNR>=12	Not displayed
Number of Rings in Ring System (2)	/NRRS	S 5-6/NRRS	Not displayed
Ring Atom Count (2)	/RATC	S 4/RATC	Not displayed
Ring Element (and number of occurrences of REL in a ring system) (1)	/REL	S SE/REL S 5 P/REL	Not displayed
Ring Element Count (2)	/RELC	S 6/RELC	Not displayed
Ring Elemental Formula (and number of occurrences of RELF in a component structure) (1,3)	/RELF	S C N O P/RELF S >3 C N O/RELF	Not displayed
Ring Identifier (and number of occurrences of RID in a component structure) (1)	/RID	S 31779.1.2/RID S 1938/RID S >=2 1949.52/RID	RSD, SRSD
Ring Size of Smallest Ring (and number of occurrences of SZS in a ring system) (1,2)	/SZS	S 8/SZS S 5 4/SZS	Not displayed
Ring System Formula (and number of occurrences of RF in a component structure) (1)	/RF	S C20AGN4/RF S 5 C10/RF	RSD
Size for the Ring System (and number of occurrences of SZ in a component structure) (1)	/SZ	S 3-4-5/SZ S 3 5-5-6/SZ	RSD

(1) The number of occurrences must be entered first in the search field. It is a numeric term and may be searched using numeric operators or ranges.

(2) Numeric search field that may be searched using numeric operators or ranges.

(3) Formulas must be entered with spaces between the elements.

Sequence Fields

Search Field Name	Search Code	Search Examples	Display Codes
Notes * (1)	/NTE	S CYCLIC/NTE S ?CHLORO?/NTE	NTE
Nucleic Acid Count (2,3)	/NA.CNT	S 12-42/NA.CNT	NA
Nucleic Acid Type (3)	/NA	S 12-42 A/NA	NA
Patent Annotation (4)	/PNTE (/FEAT)	S RATTUS/PNTE	PNTE
Patent Country (4)	/PC	S US/PC	PNTE
Patent Number (4)	/PN	S WO2000056771/PN	PNTE
Sequence Length	/SQL	S G/NA S SQL<=500	SQL

(1) With left truncation, the input term must contain at least 4 characters.

(2) Numeric search field that may be searched using numeric operators or ranges.

(3) Field contains data only for nucleic acid sequences.

(4) Field contains data only for sequences indexed from patents since October 1999.

Property Search Fields (1)

Search Field Name	Default Units	Search Code	Search Examples	Display Codes
Bioconcentration Factor (1)	none	/BCF	S 4000-5000/BCF	BCF
Bioconcentration Factor pH Values (1)	none	/BCF.PH	S 4000-5000/PCF(P)7/BCF.PH	BCF
Bioconcentration Factor Temperature	deg C	/BCF.T	S 25/BCF.T	BCF
Boiling Point (1)	deg C	/BP	S 150-155/BP	BP
Boiling Point Pressure (1)	Torr	/BP.P	S 166/BP(P)3/BP.P	BP
Density (1)	g/cm**3	/DEN	S DEN>=1.002	DEN
Density Temperature (1)	deg C	/DEN.T	S 1.0021-1.02/DEN (P) 20/DEN.T	DEN
Density Pressure (1)	Torr	/DEN.P	S 800/DEN.P	DEN
Electric Conductance (1)	Siemens	/ECON		
Electric Conductance Temperature (1)	deg C	/ECON.T		
Electric Conductivity (1)	S/cm	/ECND	S 1400-1900/ECND	ECND
Electric Conductivity Temperature (1)	deg C	/ECND.T	S 1400-1900/ECND (P) 1000/ECND.T	ECND
Electric Resistance (1)	ohm	/ERES	S 30-70/ERES	ERES
Electric Resistance Temperature (1)	deg C	/ERES.T	S 900-960/ERES (P) 235/ERES.T	ERES
Electric Resistivity (1)	ohm*cm	/EREST	S EREST>=6600	EREST
Electric Resistivity Temperature (1)	deg C	/EREST.T	S EREST>=6600 (P) 25/EREST.T	EREST
Enthalpy of Vaporization (1)	kJ/mol	/HVAP	S 100-110/HVAP	HVAP
Experimental Properties (includes content of /ETAG and /FA) (2)	none	/EPROPS	S TENSILE STRENGTH/EPROPS	EPROP, ETAG
Experimental Property Tags (2,3)	None	/ETAG	S MASS SPECTRA/ETAG	ETAG
Field Availability (2)	none	/FA	S HD/FA	FA
Field Not Available (2)	none	/FNA	S PYRAZOL? AND HD/FNA	Not displayed
Flash Point (1)	deg C	/FP	S FP<250	FP
Freely Rotatable Bonds (1,4)	none	/FRB	S 2-5/FRB	FRB
Glass Transition Temperature	deg C	/TG	S 7-8/TG	TG

REGISTRY

Property Search Fields (1) (cont'd)

Search Field Name	Default Units	Search Code	Search Examples	Display Codes
Hydrogen Acceptors (1,4)	none	/HAC	S 1-3/HAC	HAC
Hydrogen Donors (1,4)	none	/HD	S HD<=5	HD
Hydrogen Donor/Acceptor Sum	none	/HDAS	S 12/HDAS	HDAS
Koc (Organic Carbon Adsorption Constant)	none	/KOC	S 100-200/KOC	KOC
Koc pH Values (1)	none	/KOC.PH	S 100-200/KOC(P)7/KOC.PH	KOC
Koc Temperature	deg C	/KOC.T	S 25/KOC.T	KOC
LogD (1)	none	/LOGD	S 2.21/LOGD	LOGD
LogD pH Values (1)	none	/LOGD.PH	S 2.21/LOGD (P) 10/LOGD.PH	LOGD
LogD Temperature	deg C	/LOGD.T	S 25/LOGD.T	LOGD
LogP (1,4)	none	/LOGP	S LOGP<=3	LOGP
LogP Temperature	deg C	/LOGP.T	S 25/LOGP.T	LOGP
Magnetic Moment	uB	/MM	S MM<=0.98	MM
Magnetic Moment Temperature	K	/MM.T	S 0.021/MM (P) 10/MM.T	MM
Mass Intrinsic Solubility	g/L	/ISLB.MASS	S 1.3/ISLB.MASS	ISLB.MASS
Mass Solubility	g/L	/SLB.MASS	S 1.4/SLB.MASS	SLB.MASS
Mass Solubility pH	none	/SLB.PH	S 0.17/SLB.PH	SLB.MASS
Median Lethal Dose	mg/kg	/LD50	S 741-745/LD50	LD50
Median Lethal Dose Organism	none	/LD50.ORGAN	S 741-745/LD50 (P) MOUSE/LD50.ORGAN	LD50
Median Lethal Dose Route of Administration	none	/LD50.RTE	S 450-520/LD50 (P) ORAL/LD50.RTE	LD50
Melting Point (1,3)	deg C	/MP	S MP<=30	MP
Melting Point Pressure (1)	Torr	/MP.P	S 70/MP(P)2/MP.P	MP
Melting Point Solvent	none	/MP.SOL	S ACETIC ACID/MP.SOL	MP
Molar Intrinsic Solubility	mol/L	/ISLB.MOL	S 1.6E-14/ISLB.MOL	ISLB.MOL
Molar Solubility (1)	mol/L	/SLB.MOL	S SLB.MOL>=1	SLB.MOL
Molar Solubility pH Values (1)	none	/SLB.PH	S SLB.MOL>=1 (P) 7-10/SLB.PH	SLB.MOL
Molar Volume	cm**3/mol	/MVOL	S 31.1/MVOL	MVOL
Molar Volume Temperature	deg C	/MVOL.T	S 25/MVOL.T	MVOL
Molar Volume Pressure	Torr	/MVOL.P	S 760/MVOL.P	MVOL
Molecular Weight (1,4)	none	/MW	S MW<200	MW
Optical Rotatory Power (1)	deg	/ORP	S 70-80/ORP	ORP
Optical Rotatory Power Concentration (1)	g/100mL	/ORP.C	S 0.12/ORP.C	ORP
Optical Rotatory Power Pathlength	dm	/ORP.LEN	S 43/ORP.LEN	ORP
Optical Rotatory Power Solvent	none	/ORP.SOL	S METHANOL/ORP.SOL	ORP
Optical Rotatory Power Temperature (1)	deg C	/ORP.T	S 70-80/ORP(P)20/ORP.T	ORP
Optical Rotatory Power Wavelength (1)	nm	/ORP.W	S 546/ORP.W	ORP
pKa (1)	none	/PKA	S PKA<=-0.62	PKA
pKa Temperature	deg C	/PKA.T	S 25/PKA.T	PKA
pKa Type	none	/PKA.TYP	S PKA<=-0.52 (P) MOST ACIDIC/PKA.TYP	PKA

Property Search Fields (1) (cont'd)

Search Field Name	Default Units	Search Code	Search Examples	Display Codes
Polar Surface Area	A**2 (Angstrom**2)	PSA	S 3.24/PSA	PSA
Property Note (4)	none	/PNT	S MP<=30 (P)DECOMP/PNT S MP=110(P)EXACT/PNT	EPROP
Property Source Note (2)	none	/PSO	S L1 NOT ACD/PSO S L1 AND CAS/PSO	PROP
Property Type (2)	none	/PTYP	S L1 AND PREDICTED/PTYP S EXPERIMENTAL/PTYP	PROP
Reference Accession Number in CA (2)	none	/RAN.CA	S 90:102811/RAN.CA	EPROP
Refractive Index (1)	none	/RI	S 1.427/RI	RI
Refractive Index Temperature (1)	deg C	/RI.T	S 1.427/RI(P)25/RI.T	RI
Refractive Index Wavelength Spectra	nm none	/RI.W /SPEC	S 500-589.3/RI.W S IR/SPEC S NMR SPECTRA/SPEC S MASS SPECTRA/SPEC S PROTON SPECTRA/SPEC	RI SPEC
Tensile Strength	MPa	/TS	S 42/TS	TS
Tensile Strength Temperature	deg C	/TS.T	S 200-315/TS (P) 190/TS.T	TS
Uncertainty Range	-	/UR	S BP=200(P)UR<=10	EPROP
Vapor Pressure (1)	Torr	/VP	S .0001-.0002/VP	VP
Vapor Pressure Temperature (1)	deg C	/VP.T	S .0001-.0002/VP(P)25/VP.T	VP

(1) Numeric search field that may be searched using numeric operators or ranges.

(2) Field containing text terms which are not searchable with numeric operators or ranges.

(3) For a list of search terms, refer to REGISTRY: Tagged Experimental Properties at: <http://www.cas.org/ONLINE/UG/taggedproperties.pdf>

(4) The Property Note (/PNT) field contains property-related note terms such as COMP, SUBLM, and POLYMORPH when this information is reported. The /PNT field also contains the terms EXACT, CLOSED RANGE, OPEN RANGE. To limit your retrievals to EXACT, CLOSED RANGE, or OPEN RANGE values, combine your numeric query with one of these terms using the (P) operator.

CAplus Super Roles and Document Type Search Fields (1)

Search Field Name	Search Code	Search Examples	Display Codes
Document type	/DT.CA	S JOURNAL/DT.CA	DT.CA
Super roles for specific substances	/RL	S RACT/RL	RL
Super roles for non-specific derivatives	/RLD	S RACT/RLD	RLD
Super roles for specific substances and non-specific derivatives	/RLS	S USES/RLS	RLS
Super roles for specific substances from patents	/RL.P	S PREP/RL.P	RL.P
Super roles for non-specific derivatives from patents	/RLD.P	S PREP/RLD.P	RLD.P
Super roles for specific substances and non-specific derivatives from patents	/RLS.P	S PREP/RLS.P	RLS
Super roles for specific substances from non-patent documents	/RL.NP	S PREP/RL.NP	RL.NP
Super roles for non-specific derivatives from non- patent documents	/RLD.NP	S PROPERTIES/RLD.NP	RLD.NP
Super roles for specific substances and non-specific derivatives from non-patent documents	/RLS.NP	S COMBINATORIAL?/RLS.NP	RLS

(1) Enter HELP ROLES at an arrow prompt in the file for a list of CAplus super roles that are searchable in REGISTRY.

REGISTRY

Limiting Search Codes

Search Field Name	Search Code	Search Examples	Display Code
Answers completely iterated Answers incompletely iterated	/COMPLETE (1) /INCOMPLETE (1)	S L4/COM (2) S L4/INC (2)	Not displayed Not displayed

(1) The code may be abbreviated to the first three letters.

(2) Only an L-number for an answer set created in REGISTRY may be limited.

Structure Search Terms

Terms(1)	Search Examples
L-numbers of structures built using the STRUCTURE command or uploaded from STN Express® (Boolean logic allowed between the L-numbers) L-numbers of screen sets created using the SCREEN command (Boolean logic allowed between the L-numbers) L-numbers of structures built using the STRUCTURE command or uploaded from STN Express combined with L-numbers of screen sets created using the SCREEN command (Boolean logic allowed between L-numbers)	SEARCH L1 FAM SAM SEA L1 AND L2 SSS FUL S L3 OR L4 SSS SAM S L1 AND L2 NOT L3

(1) The L-number answer set from a structure search may be combined with dictionary terms, e.g., S L3 AND TSCA/LC.

Types of Structure Searching

Type	Definition	Search Code	Search Examples
Substructure (default)	Search for substances that match the query. Substitution is allowed at all open positions. Additional components may be retrieved.	SSS	SEARCH L1 SSS FUL S L2 OR L3 SSS SAM S L7 SSS
Closed Substructure	Search for substances that match the query exactly. Substitution is allowed at positions opened by CONNECT. Additional components may be retrieved.	CSS	SEARCH L1 CSS FUL S L2 NOT L3 CSS S L4 OR L5 CSS RANGE
Family	Search for substances that match the query exactly. Additional components may be retrieved.	FAM	S L6 FAM SAM
Exact	Search for substances that match the query exactly.	EXA	SEA L5 EXA FUL

Scopes of Structure Searches

To create an L-number answer set containing candidate structures that have passed the screening step of your structure search, enter EXTEND on the search command line or enter SET EXTEND ON or SET EXTEND ON PERM at an arrow prompt (=>). For details, enter HELP SET EXTEND at an arrow prompt.

Type	Definition	Search Code	Search Examples
Sample (1) (default)	Search a fixed 5% of the file.	SAM	SEARCH L3 EXA SAM
Full	Search 100% of the file.	FUL	S L6 NOT L7 SSS SAM
Range	Search a user-specified portion of the file.	RAN	S L5 OR L8 SSS FUL
Subset Sample	Search a fixed sample of an answer set created by a search in REGISTRY.	SUB SAM	S L4 RAN= (110507-58-9), S L3 FAM RAN= (109784-14-7, 109904-92-9)
Subset Range	Search a user-specified portion of answer set created by a search in REGISTRY.	SUB RAN	S L7 CSS SUB=L5 SAM
Subset Full	Search 100% of an answer set created by a search in REGISTRY.	SUB FUL	S L3 SUB=L2 RAN=(,50-11-3) S L8 SUB=L6 FAM FUL

(1) EXTEND is not valid with SAMPLE.

Sequence Search Terms

Terms	Search Example
One-letter codes for common amino acids (1) Three-letter codes for common and uncommon amino acids (1) (2) Enclose codes or strings of codes in single quotes. Use dashes to separate codes in strings.	S LAGLL/SQSP S 'LEU-ALA-GLY-LEU-LEU'/SQSFP S F'HCY-STA'LF/SQSP S 'GLP'AGYSK/SQEP S 'CYS-ASN-THR-ALA'/SQEP
Single letter codes for nucleic acids (3)	S ATTTTTTTTTT/SQEN S AAGGTTACTA/SQSN

(1) Enter HELP AAC at an arrow prompt to display a table of the 1- and 3-letter codes for common amino acids.

(2) Enter HELP AAU at an arrow prompt to display a table of the 3-letter codes for uncommon amino acids.

(3) Enter HELP NUC at an arrow prompt to display a table of the codes for nucleic acids.

REGISTRY

Types of Sequence Searches

Sequence data for protein and nucleic acid sequences are displayed in the SEQ field with 1-letter codes and the SEQ3 field with 3-letter codes for proteins only.

Type	Definition	Code	Examples
Sequence Exact, Protein	Search for sequences that match the query. The query must be completely defined.	/SQEP	S YADAIF/SQEP S 'CYS-ASN-THR-ALA'/SQEP
Sequence Exact Family, Protein	Search for sequences that match the query and those in which family-equivalent substitution of the query amino acids occur (1) .	/SQEFP	S YGGFL/SQEFP S 'TYR-GLY-GLY- PHE-LEU'/SQEFP
Subsequence, Protein	Search for exact answers plus sequences in which the query sequence is embedded. Variability symbols are allowed.	/SQSP	S LAGLL/SQSP S F'HCY-STA'LF/SQSP
Subsequence Family, Protein	Search for exact subsequences, and answers in which family-equivalent substitution of the query amino acids occurs (1) .	/SQSFP	S ATCXAWV/SQSFP S 'LEU-ALA-GLY-LEU-LEU'/SQSFP
Sequence Exact, Nucleic Acid	Search for sequences that match the query. Ambiguity codes for nucleic acids are allowed.	/SQEN	S ATTTTTTTTTT/SQEN
Subsequence, Nucleic Acid	Search for exact answers, plus sequences in which the query sequence is embedded. Ambiguity codes for nucleic acids and variability symbols are allowed.	/SQSN	S AAGGTTACTA/SQSN

(1) The families of amino acid equivalents retrieved in protein family searches are:

P, A, G, S, T	(neutral, weakly hydrophobic)
Q, N, E, D, B, Z	(hydrophilic, acid amine)
H, K, R	(hydrophilic, basic)
L, I, V, M	(hydrophobic)
F, Y, W	(hydrophobic, aromatic)
C	(cross-link forming)

Variability Symbols for Subsequence Searches (/SQSP, /SQSFP, and /SQSN)(1,2)

Symbol	Function	Search Examples
[]	To specify alternate residues	S LGP[VL]/SQSP S LGP["VAL"LEU']/SQSP
[-]	To exclude a specific residue or alternate residues	S LGP[-H]/SQSP S LGP[-'HIS']/SQSPSP S LGP[-HL]/SQSP
{m}	To repeat the preceding sequence or sequence query (L#, E#, or saved query) m times	S (FL){2}/SQSP S L4{2}/SQSP S NAME/Q{3}/SQSP S (CTG){2}/SQSN S TAA(TAAA){2}/SQSN
{m,u} or {m-u}	To repeat the preceding sequence or sequence query (L#, E#, or saved query) m to u times	S GG(FL){1,2}/SQSP S L3{1,3}/SQSP S NAME/Q{1,4}/SQSP S (CTG){1,3}/SQSN
? or {0,1} or {0-1}	To repeat the preceding sequence or sequence query (L#, E#, or saved query) zero or one time	S FLRRI(RP)?K/SQSP S FLRRI(RP){0,1}K/SQSP S L1{0-1}NN/SQSP S NAME/Q{0,1}NN/SQSP S CAT(CGA){0,1}GGAC/SQSN

Variability Symbols for Subsequence Searches (/SQSP, /SQSFP, and /SQSN) (1,2) (cont'd)

Symbol	Function	Search Examples
* or {0,} or {0-}	To repeat the preceding sequence or sequence query (L#, E#, or saved query) zero or more times	S KLK(WD){0,}N/SQSP S KLK(WD)*N/SQSP S L1{0-}NN/SQSP S NAME/Q{0,}NN/SQSP S CAT(CTG){0,}TATT/SQSN
+ or {1,} or {1-}	To repeat the preceding sequence or sequence query (L#, E#, or saved query) one or more times	S KLK(DLE){1,}/SQSP S KLK(DLE)+/SQSP S L2{1-}/SQSP S NAME/Q{1,}/SQSP S CAT(CTG){1,}TATT/SQSN
&	To join together sequence expressions or queries (L#s, E#s, or saved queries)	S L1&L3/SQSFP S L2&L5{1,3}/SQSP S NAME1/Q{2}&NAME2/Q/SQSP S E1&E3/SQSP

(1) For more information on specifying variability in subsequence queries, enter HELP SQQ at an arrow prompt.

(2) In addition, the caret and the vertical bar may be used. The caret is used at the beginning or end of a sequence to search for that sequence at the beginning or end of a sequence field. The vertical bar is the symbol for alternation, i.e., it is used to separate alternate sequence queries.

Specifying Gaps in Subsequence Searches (/SQSP, /SQSFP, and /SQSN)

Symbol	Function	Search Examples
.	A gap of one residue	S SY.RPG/SQSP S SY..RPG/SQSPS S AAG...TGC/SQSN
{m} or [m.]	A gap of m residues	S SY.{2}RPG/SQSP S SY[2.]RPG/SQSP
{m,u} or {m-u}	Gap of m to u residues	S GFF.{2,10}LSS/SQSP S GFF.{2-10}LSS/SQSP S AAG.{2,5}TGC/SQSN
: or ? or {0,1} or {0-1}	Gap of zero or one residues	S AGA:SRI/SQSFP S AGA.?SRI/SQSFP S AGA.{0,1}SRI/SQSFP S AGA.{0-1}SRI/SQSFP
* or {0,} or {0-}	Gap of zero or more residue	S HLC.*TYG/SQSP S HLC.{0,}TYG/SQSP S HLC.{0-}TYG/SQSP S AAGGCAGATG.*GCAA/SQSN
+ or {1,} or {1-}	A gap of one or more residues	S SY.+TH/SQSFP S SY.{1,}TH/SQSFP S SY.{1-}TH/SQSFP S TCCTG.+GTGG/SQSN

REGISTRY

CAS Registry BLAST[®] Similarity Searching

Similarity searching of peptides and nucleotides in REGISTRY using the BLAST[®] (Basic Local Alignment Search Tool) algorithm is also available only for commercial accounts via STN[®] on the WebSM or using STN Express 6.01 or higher for Windows[®].

DISPLAY and PRINT Formats

You may use any of the substance information field codes, property field codes, CPlus super roles, and document type field codes to DISPLAY and PRINT answers. You may also use any of the CA document reference field codes or predefined formats, but these must always be combined with one of the substance information or property fields or formats. Individual substance information fields may not be combined with substance predefined formats, e.g., D IDE RSD is not a valid request.

Multiple codes must be separated by commas or spaces. The fields are displayed or printed in the order requested.

Highlighting must be ON during SEARCH in order to use the HIT and KWIC formats.

The CM (Component Number) field appears in records for multicomponent substances, but it is not a custom display field and cannot be used in display or print requests.

Format (1)	Content	Examples
AF	Alternate Molecular Formula	D L4 1-4 AF
AR	Alternate Registry Number	D L1 3 AR
CCI	Component Class Identifier	D CCI 1,3-5
CCN (2)	Condensed Chemical Name	D 20 CCN
CI	Substance Class Identifier	D 1-3,7,8 CI
CIL	Component Isotope at Unknown Location	D CIL
CMF	Component Molecular Formula	D L1 CMF 3
CN	Chemical Name	D CN
COMP(3)	Composition	D L7
CRN	Component Registry Number	D 1,3,6 CRN L5
DEF	Definition	D DEF
DR	Deleted Registry Number	D L8 DR 1-3
ED	Entry Date	D ED
ENTE	Editor Note	D ENTE
FCN (2)	Full Chemical Name	D FCN L3 7
FS	File Segment	D 1,4 FS
IL	Isotope at Unknown Location	D IL
IN	CA Index Name	D IN L1 4
LC	Registry Number Locator	D LC 3,4
MF	Molecular Formula	D MF
PCT	Polymer Class Term	D L3 PCT
PR	Preferred Registry Number	D 5,3 PR
REF	Number of references in CA, CPlus	D REF
RN	CAS Registry Number	D L4 RN 3
RR	Replaced Registry Number	D L3 2 RR
RSD (4)	Ring System Data	D RSD
SCN (5)	Short Chemical Name	D 5-9 SCN
SR	Source of Registration	D SR 1,3 L12
SRSD (6)	Short Ring System Data	D SRSD
STF (7)	Flat Structure (no stereo indicated)	D L9 1 3
STR (8)	Structure Diagram (includes stereo bonds and R/S/E/Z labels when available)	D L4 STR
STS (7,8)	Stereo Structure (includes stereo bonds when available)	D STS
NA	Nucleic Acid	D 6 9 11 NA
NTE	Note	D NTE
PNTE	Patent Annotation	D PNTE
SEQ	Sequence (1-letter codes)	D SEQ

DISPLAY and PRINT Formats (cont'd)

Format (1)	Content	Examples
SEQ3 SQD SQD3 SQIDE SQIDE3 SQL SQN	Sequence (3-letter codes) RN, AR, PR, DR, RR, FS, SQL, NTE, PNTE, SEQ RN, AR, PR, DR, RR, FS, SQL, NTE, PNTE, SEQ3 RN, CN, DEF, AR, PR, DR, RR, FS, SQL, NA, NTE, PNTE, SEQ, MF, AF, CI, PCT, SR, LC, IL, STR, REF Same as SQIDE except that 3-letter codes are used for protein sequences Sequence Length RN, CN, AR, PR, FS, SQL, DR, RR, REF	D SEQ3 1-10 D 5 SQD D 2-4 SQD3 D L4 SQIDE D L4 SQIDE3 D L3 SQL D SQN L5 6-9
BCF BP DEN ECND (7) ECON (7) ERES (7) EREST (7) FP FRB HAC HDAS HD HVAP ISLB.MASS ISLB.MOL KOC LD50 (7) LOGD LOGP MM (7) MP MVOL MW ORP PKA PRFA (FA) (9) PSA RI SLB.MASS SPEC (10) SPEC.C13NMR (10) SPEC.IR (10) SPEC.MASS (10) SPEC.PROTONNMR TG (7) TS (7) VP DT.CA RL RL.NP RL.P RLD (RL.D) RLD.NP RLD.P RLS	Tabular display of Bioconcentration Factor Tabular display of Boiling Point Tabular Display of Density Tabular display of Electric Conductivity Tabular display of Electric Conductance Tabular display of Electric Resistance Tabular display of Electric Resistivity Tabular display of Flash Point Tabular display of Freely Rotatable Bonds Tabular display of H Acceptors Tabular display of H Donor/Acceptor Sum Tabular display of H Donors Tabular display of Enthalpy of Vaporization Tabular display of Mass Intrinsic Solubility Tabular display of Molar Intrinsic Solubility Tabular display of Organic Carbon Adsorption Tabular display of Median Lethal Dose Tabular display of LogD Tabular display of LogP Tabular display of Magnetic Moment Tabular display of Melting Point Tabular display of Molar Volume Tabular display of Molecular Weight Tabular display of Optical Rotatory Power Tabular display of pKa Property fields available Tabular display of Polar Surface Area Tabular display of Refractive Index Tabular display of Mass Solubility Spectra Carbon-13 NMR Spectra IR Absorption Spectra Mass Spectra Proton NMR Spectra Tabular display of Glass Transition Temperature Tabular display of Tensile Strength Tabular display of Vapor Pressure CAplus document type CAplus super roles CAplus super roles from non-patents CAplus super roles from patents CAplus super roles for non-specific derivatives CAplus super roles for non-specific derivatives from non-patents CAplus super roles for non-specific derivatives from patents CAplus super roles for the specific substance and its non- specific derivatives	D IDE BCF 1-5 D BP 1-2 D DEN 1-2 D ECND D ECON D ERES D EREST D IDE FP 1-5 D IDE FRB 1-2 D HAC 1 D HDAS D HD HAC D IDE HVAP 1-5 D ISLB.MASS D ISLB.MOL D IDE KOC 1-5 D LD50 D LOGD 2-5 D LOGP D MM D MP 1-2 D MVOL D MW D ORP D PKA D PRFA D PSA D RI 1-2 D SLB.MASS D SPEC D SPEC.C13NMR D SPEC.IR D SPEC.MASS D SPEC.PROTONNMR D TG D TS D IDE VP 1-5 D DT.CA D RL D RL.NP D RL.P D RLD D RLD.NP D RLD.P D RLS

REGISTRY

DISPLAY and PRINT Formats (cont'd)

Format (1)	Content	Examples
ALL (10)	All available substance information, CAplus super roles and document types, property tables (EPROP, SPEC, ETAG, PPROP), and BIB ABS IND for the 10 most recent CA references	DISPLAY L1 1 ALL
EPROP EPROPS ETAG	Tabular display of experimental property data EPROP, ETAG Tabular display of experimental property tags (one line for each unique property)	D EPROP 2-3 D EPROPS D ETAG
ETAGFULL FIDE	Tabular display of all experimental property tags All substance information including all names and RSD, CAplus super roles and document types, and all property tables (EPROP, ETAG, PPROP)	D ETAGFULL D FIDE
IALL (10) IDE	ALL, indented with text labels Up to 50 names and other substance data except for RSD (IDE is the default)	D IALL D
IDERL MAX (10)	IDE plus CAplus super roles and document types All available substance information, CAplus super roles and document types, property tables (EPROP, SPEC, ETAGFULL, PPROP), and BIB ABS IND for the 10 most recent CA references	D IDERL L10 D MAX
OPROP	Tabular display of experimental property data with original document units	D OPROP
PPROP (CALC) PROP (APROPS) (10) QRD	Tabular display of predicted (calculated) property data Tabular display of all property data and tags (EPROP, SPEC, ETAG, PPROP) IDE and the rows of the table containing the hit property values or tags	D PPROP D PROP D QRD
REG SAM SCAN (9,11)	CAS Registry Numbers (RN, DR, AR, PR, RR) IN, SQL, MF, CI, STR, COMP IN, SQL, MF, CI, STR, COMP (random display without answer numbers)	D REG D L3 1-18 SAM D SCAN
HIT (12) KWIC (12)	Fields containing hit terms Hit terms plus 20 words on either side (KeyWord in Context)	D HIT 5-10 D KWIC 5-10

- (1) In addition to these substance field codes and formats, bibliographic information, except for FAN.CNT, FAN, FAM, and FBIB, for the 10 most recent documents that cite the substance in CA can be displayed if combined with at least one substance field, e.g., D RN TI AU. The substance code or format must be given first. The bibliographic formats are found on the CA Database Summary Sheet.
- (2) Names are displayed with CN code. This is a custom display only.
- (3) This is a tabular display that lists composition information and Component Registry Numbers for alloys and tabular inorganic substances.
- (4) This is a tabular display that lists EA, ES, SZ, RF, RID, and RID Occurrence Count.
- (5) The CA Index Name and all OTHER NAMES are displayed with CN code. This is a custom display only.
- (6) This is a tabular display that lists EA, RID, and RID Occurrence Count.
- (7) Custom display format.
- (8) Stereo structure diagrams are available only on graphics terminals and offline prints.
- (9) No online display charge for this option.
- (10) Spectral images are displayed with the SPEC format only in STN on the Web, and via STN Express 5.0 or higher. They are available in prints sent only as EMAIL.
- (11) SCAN must be specified on the command line, i.e., D SCAN or DISPLAY SCAN.
- (12) HIT and KWIC are available for all dictionary fields except MAC, RC, and CRN, and in all biosequence fields. KWIC is the same as HIT for all fields except DEF and LC. The entire field containing hit terms is highlighted except for DEF and LC in which the individual terms are highlighted. The entire RSD table is displayed without highlighting. For NTE, row(s) of the table containing the hit terms is displayed without highlighting. For SEQ and SEQ3, the amino acid codes causing the hit to be highlighted by underlining and also by a statement of their position in the sequence.

SELECT, ANALYZE, and SORT Fields

The SELECT command is used to create E-numbers or an L-number containing terms taken from the specified field in an answer set.

The ANALYZE command is used to create an L-number containing terms taken from the specified field in an answer set.

The SORT command is used to rearrange the search results in either alphabetic or numeric order of the specified field(s).

FIELD NAME	FIELD CODE	ANALYZE SELECT (1)	SORT
Alternate Molecular Formula	AF	Y (2)	N
Alternate Registry Number	AR	Y (3)	N
CA Index Name	IN	Y (4)	Y
CAplus Document Type	DT.CA	Y	N
CAplus super roles	RL	Y	N
CAplus super roles from non-patents	RL.NP	Y	N
CAplus super roles from patents	RL.P	Y	N
CAplus super roles for non-specific derivatives	RLD	Y	N
CAplus super roles for non-specific derivatives from non-patents	RLD.NP	Y	N
CAplus super roles for non-specific derivatives from patents	RLD.P	Y	N
CAplus super roles for the substance and its non-specific derivatives	RLS	Y	N
CAS Registry Number	RN	Y	Y
Chemical Name	CN	Y (5)	N
Class Identifier	CI	Y	N
Component Class Identifier	CCI	Y (6)	N
Component Molecular Formula	CMF	Y (3)	N
Component Registry Number	CRN	Y	N
Definition	DEF	Y	N
Deleted Registry Number	DR	Y (3)	N
Editor Note	ENTE	Y	N
Elemental Analysis for Ring System	EA	Y	N
Elemental Sequence for Ring System	ES	Y	N
Entry Date	ED	Y	Y
Experimental Property Tags	ETAG	Y	N
Experimental Properties	EPROP	Y (7)	N
File Segment	FS	Y	Y
Freely Rotatable Bonds	FRB	N	Y
Full Chemical Name	FCN	Y	N
H Acceptors	HAC	N	Y
H Donors	HD	N	Y
Molecular Formula	MF	Y	N
Molecular Weight	MW	N	Y
Names	NAME	Y (8)	N
Nucleic Acid Sequence (exact search form)	SQEN	Y	N
Nucleic Acid Sequence (subsequence search form)	SQSN	Y	N
Patent Number	PN	Y (9)	N
Polymer Class Term	PCT	Y	N
Preferred Registry Number	PR	Y (3)	N
Protein Sequence (exact family search form)	SQEFP	Y	N
Protein Sequence (exact search form)	SQEP	Y	N
Protein Sequence (subsequence family search form)	SQSFP	Y	N
Protein Sequence (subsequence search form)	SQSP	Y	N
References	REF	N	Y
Reference Accession Number in CA	RAN.CA	Y	N
Registry Number Locator	LC	Y (10)	N
Registry Numbers and Names	CHEM	Y (11) (default)	N
Replacing Registry Number	RR	Y (5)	N
Ring Identifier	RID	Y	N

REGISTRY**SELECT, ANALYZE, and SORT Fields (cont'd)**

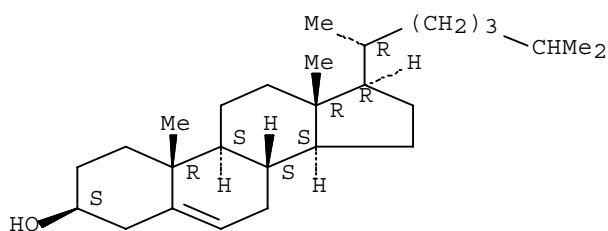
FIELD NAME	FIELD CODE	ANALYZE SELECT (1)	SORT
Ring System Formula	RF	Y	N
Sequence (1-letter codes)	SEQ	Y	N
Sequence (3-letter codes)	SEQ3	Y	N
Sequence Length	SQL	N	Y
Short Chemical Names	SCN	Y (4)	N
Size for the Ring System	SZ	Y	N
Source of Registration	SR	Y	N

- (1) HIT may be used to restrict terms extracted to terms that match the search expression used to create the answer set, e.g., SEL HIT CN.
- (2) /MF is appended to the terms created by SELECT.
- (3) /BI is appended to the terms created by SELECT.
- (4) /CN is appended to the terms created by SELECT.
- (5) CA Index Name, first 50 names in alphabetical order, and any additional hit names are extracted.
- (6) /CI is appended to the terms created by SELECT.
- (7) /FA is appended to the terms created by SELECT.
- (8) All names except inverted names are extracted and /BI is appended to the terms created by SELECT. For nucleic acids from the GenBank database, NAME extracts GenBank Locus ID and GenBank numbers. GenBank numbers may be used as search terms in the GenBank database or other STN databases such as MEDLINE.
- (9) Extracts patent number from the Patent Annotation (PNTE) field.
- (10) E-numbers containing the files listed in this field may be used in the FILE and INDEX commands in place of the file names.
- (11) AR, DR, PR, RN, RR, and all names except inverted names are extracted and /BI is appended to the terms created by SELECT.

Sample Records

DISPLAY IDE

RN 57-88-5 REGISTRY
ED Entered STN: 16 Nov 1984
CN Cholest-5-en-3-ol (3 β)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Cholesterol (8CI)
OTHER NAMES:
CN (-)-Cholesterol
CN Δ^5 -Cholesten-3 β -ol
CN 3 β -Hydroxycholest-5-ene
CN 5:6-Cholesten-3 β -ol
CN Cholest-5-en-3 β -ol
CN Cholesterin
CN Cholesteryl alcohol
CN Dythol
CN Lidinit
CN Lidinite
CN NSC 8798
CN Provitamin D
FS STEREOSEARCH
DR 732297-95-9, 793670-51-6, 80356-33-8, 209124-38-9, 218965-24-3,
262418-13-3, 378185-03-6, 676322-57-9
MF C27 H46 O
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,
CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*,
DIOGENES, DIPPR*, DRUGU, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT,
IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*,
PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2,
USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
Absolute stereochemistry.



107642 REFERENCES IN FILE CA (1907 TO DATE)
9568 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
107781 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REGISTRY**DISPLAY SQIDE (Protein Sequence Record)**

RN 91386-77-5 REGISTRY
 CN Interferon α 1 (human leukocyte protein moiety reduced), 1-L-serine-
 (9CI) (CA INDEX NAME)
 FS PROTEIN SEQUENCE
 SQL 166

SEQ 1 SDLPETHSLD NRRTLMLLAQ MSRISPSSCL MDRHDFGFPO EEFDGNQFQK
 51 APAISVLHEL IQQIFNLFTT KDSSAAWDED LLDKFCTELY QQLNDLEACV
 101 MQEERVGETP LMNADSILAV KKYFRRITLY LTEKKYSPCA WEVVRAEIMR
 151 SLSLSTNLQE RLRRKE

MF Unspecified
 CI MAN
 LC STN Files: CA, CAPLUS
 DT.CA CAplus document type: Conference
 RL.NP Roles from non-patents: PREP (Preparation)
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

DISPLAY SQIDE (Nucleic Acid Sequence Indexed by CAS)

RN 91449-61-5 REGISTRY
 CN DNA (Tikaut virus 5'-long terminal repeat) (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Deoxyribonucleic acid (Tikaut provirus 5'-long terminal repeat)
 FS NUCLEIC ACID SEQUENCE
 SQL 641
 NA 186 a 170 c 160 g 125 t
 NTE doublestranded

SEQ 1 tgaagacc caccataagg cttagcaagc tagctgcagt aacgccattt
 51 tgcaaggcat gaaaagtac cagagctgag ttctcaaagt caacaacgaa
 101 gtttagttaa agaataaggc tgaacaaaac tgggacaggg gccaaacagg
 151 atatctgtgg tcgagcagct agggccccgg ctcagggcca agaacagatg
 201 gtactcagat aaagcgaagg gctgaacaaa acgggacaggg ggccaaacag
 251 gatgggggccc aacaggata tctgtggtcg agcacctggg ccccggtca
 301 gggccaagaa cagatggtac tcagataaag cgaaactaac aacagtttct
 351 ggaaagtccc acctcagttt caagttcccc aaaagaccgg gaaaaacccc
 401 aagccttatt taaactaacc aatcagctcg cttctcgctt ctgtaaccgg
 451 cgctttttgc tcccagccct ataaaaaggg taaaacccc aactcggcg
 501 cccagtcct ccgatagact gagtcgcccg ggtaccctg tatccaataa
 551 agccttttgc tgttgcattc gaatcgtggt ctcgctgatc cttgggaggg
 601 tctctcaga gtgattgact gccagcctg ggggtctttc a

MF Unspecified
 CI MAN
 LC STN Files: CA, CAPLUS
 DT.CA CAplus document type: Journal
 RL.NP Roles from non-patents: BIOL (Biological study); PRP (Properties)
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

DISPLAY SQIDE (Nucleic Acid Sequence Registered from GenBank®)

RN 139065-61-5 REGISTRY
 CN GenBank M12334 (9CI) (CA INDEX NAME)
 FS NUCLEIC ACID SEQUENCE
 SQL 35
 NA 6 a 8 c 14 g 7 t

SEQ 1 ggaggctcat ttgcagttga ggccagcagg tcggc
 MF C342 H428 N138 O209 P34
 CI MAN
 SR GenBank
 LC STN Files: GENBANK

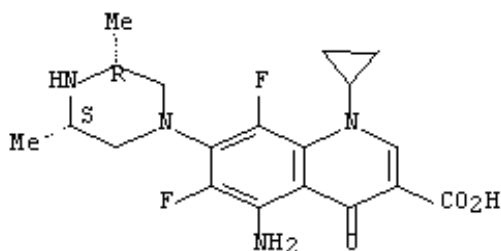
DISPLAY FIDE

RN 110871-86-8 REGISTRY
 ED Entered STN: 24 Oct 1987
 CN 3-Quinolinecarboxylic acid, 5-amino-1-cyclopropyl-7-[(3R,5S)-3,5-dimethyl-1-piperazinyl]-6,8-difluoro-1,4-dihydro-4-oxo-, rel- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 3-Quinolinecarboxylic acid, 5-amino-1-cyclopropyl-7-(3,5-dimethyl-1-piperazinyl)-6,8-difluoro-1,4-dihydro-4-oxo-, cis-
 OTHER NAMES:
 CN AT 4140
 CN CI 978
 CN CP 103826
 CN PD 1315-1
 CN PD 131501
 CN Spara
 CN Sparfloxacin
 CN Zagam
 FS STEREOSEARCH
 MF C19 H22 F2 N4 O3
 CI COM
 SR CA
 LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CABA, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CIN, CSCHEM, DDFU, DIOGENES, DRUGU, EMBASE, IMSDRUGNEWS, IMSPATENTS, IMSRESEARCH, IPA, MEDLINE, MRCK*, MSDS-OHS, PATDPASPC, PHAR, PROMT, PROUSDDR, PS, RTECS*, SCISEARCH, SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL
 (*File contains numerically searchable property data)
 DT.CA CAplus document type: Book; Conference; Journal; Patent
 RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
 RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
 RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
 RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); USES (Uses)

Ring System Data

Elemental Analysis	Elemental Sequence	Size of the Rings	Ring System Formula	Ring Identifier	RID Occurrence
EA	ES	SZ	RF	RID	Count
C3	C3	3	C3	1.13.1	1
C4N2	NC2NC2	6	C4N2	46.383.1	1
C5N-C6	NC5-C6	6-6	C9N	591.79.40	1

Relative stereochemistry.



REGISTRY**DISPLAY FIDE (cont'd)**

Experimental Properties (EPROP)

PROPERTY (CODE)	VALUE	CONDITION	NOTE
Melting Point (MP)	266-269 deg C (decomp)	Solv: chloroform (67-66-3), ethanol (64-17-5)	(1) IC
Melting Point (MP)	266-269 deg C (decomp)		(2) APC
Melting Point (MP)	258-260 deg C		(3) IC
Melting Point (MP)	250-253 deg C (decomp)		(4) IC

- (1) Miyamoto, Teruyuki; Journal of Medicinal Chemistry 1990 V33(6) P1645-56
CAPLUS
- (2) "Drugs - Synonyms and Properties" data were obtained from Ashgate
Publishing Co. (US) CAPLUS
- (3) Matsumoto, Junichi; EP 221463 A2 1987 CAPLUS
- (4) Petersen, Uwe; DE 3711193 A1 1988 CAPLUS

Experimental Property Tags (ETAG)

PROPERTY	NOTE
ADME (Absorption, Distribution, Metabolism, Excretion) 3 more tags shown in the MAX or ETAGFULL formats	(1) CAS
Half-Life (Biological) 1 more tag shown in the MAX or ETAGFULL formats	(2) CAS
IR Absorption Spectra	(3) IC
Minimum Inhibitory Concentration 17 more tags shown in the MAX or ETAGFULL formats	(4) CAS
Proton NMR Spectra	(3) IC

- (1) Kihira, Tetsunari; Journal of Infection and Chemotherapy 2004 V10(2)
P97-100 CAPLUS
- (2) Bagyalakshmi, J.; Indian Journal of Pharmaceutical Sciences 2004 V66(4)
P448-450 CAPLUS
- (3) Miyamoto, Teruyuki; Journal of Medicinal Chemistry 1990 V33(6) P1645-56
CAPLUS
- (4) Pereyre, S.; Antimicrobial Agents and Chemotherapy 2004 V48(8)
P3165-3168 CAPLUS

DISPLAY FIDE (cont'd)

Predicted Properties (PPROP)

PROPERTY (CODE)	VALUE	CONDITION	NOTE
Bioconc. Factor (BCF)	1	pH 1	(1)
Bioconc. Factor (BCF)	1	pH 4	(1)
Bioconc. Factor (BCF)	1	pH 7	(1)
Bioconc. Factor (BCF)	1	pH 8	(1)
Bioconc. Factor (BCF)	1	pH 10	(1)
Boiling Point (BP)	640.4+/-55.0 deg C	760 Torr	(1)
Enthalpy of Vap. (HVAP)	99.36+/-3.0 kJ/mol		(1)
Flash Point (FP)	341.1+/-56.7 deg C		(1)
H acceptors (HAC)	7		(1)
H donors (HD)	4		(1)
Koc (KOC)	1	pH 1	(1)
Koc (KOC)	2.68	pH 4	(1)
Koc (KOC)	2.70	pH 7	(1)
Koc (KOC)	2.42	pH 8	(1)
Koc (KOC)	1	pH 10	(1)
logD (LOGD)	-0.25	pH 1	(1)
logD (LOGD)	0.36	pH 4	(1)
logD (LOGD)	0.36	pH 7	(1)
logD (LOGD)	0.31	pH 8	(1)
logD (LOGD)	-0.66	pH 10	(1)
logP (LOGP)	2.866+/-0.890		(1)
Molar Solubility (SLB.MOL)	0.022 mol/L	pH 1	(1)
Molar Solubility (SLB.MOL)	0.0055 mol/L	pH 4	(1)
Molar Solubility (SLB.MOL)	0.0055 mol/L	pH 7	(1)
Molar Solubility (SLB.MOL)	0.0061 mol/L	pH 8	(1)
Molar Solubility (SLB.MOL)	0.057 mol/L	pH 10	(1)
Molecular Weight (MW)	392.40		(1)
pKa (PKA)	2.27+/-0.40	Most Acidic	(1)
pKa (PKA)	8.88+/-0.70	Most Basic	(1)
Vapor Pressure (VP)	2.83E-17 Torr	25 deg C	(1)

(1) Calculated using Advanced Chemistry Development (ACD/Labs) Software V4.67
((C) 1994-2005 ACD/Labs)

1416 REFERENCES IN FILE CA (1907 TO DATE)
20 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1417 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REGISTRY**DISPLAY CCN**

CN Methanaminium, N-[4-[[4-(dimethylamino)phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, chloride (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN C.I. Basic Green 4 (8CI); Victoria Green WB (6CI)

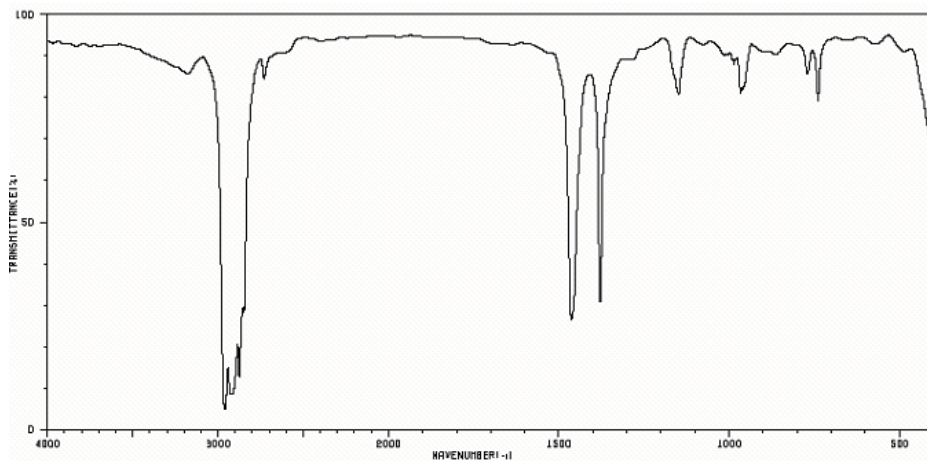
OTHER NAMES:

CN Acryl Brilliant Green B; ADC Malachite Green Crystals; Aizen Malachite Green; Aizen Malachite Green Crystals; Aniline green; Astra Malachite Green; Astra Malachite Green B; Astra Malachite Green BXX; Atlantic Malachite Green; Basic Green 4; Basonyl Green 830; Benzal Green; Benzaldehyde green; Bronze Green Toner A 8002; Burma Green B; C.I. 42000; Calcozine Green V; China Green; Diabasic Malachite Green; Diamond Green B extra; Diamond Green BX; Diamond Green P Extra; Green MX; Grenoble Green; Hidaco Malachite Green Base; Hidaco Malachite Green LC; Hidaco Malachite Green SC; Light Green N; Lincoln Green Toner B 15-2900; Malachite green; Malachite Green A; Malachite Green AN; Malachite Green B; Malachite green chloride; Malachite Green CP; Malachite Green Crystals; Malachite Green Crystals BPC; Malachite Green J 3E; Malachite Green Powder; Malachite Green WS; Malachite Lake Green A; Mitsui Malachite Green; New Victoria Green Extra I; New Victoria Green Extra II; New Victoria Green Extra O; Oji Malachite Green; Solid Green Crystals O; Solid Green O; Super Ick Cure; Tertrophene Green M; Tokyo Aniline Malachite Green; Verona Basic Green M; Victoria Green; Victoria Green (basic dye); Victoria Green B; Victoria Green S; Victoria Green WPB

DISPLAY SPEC

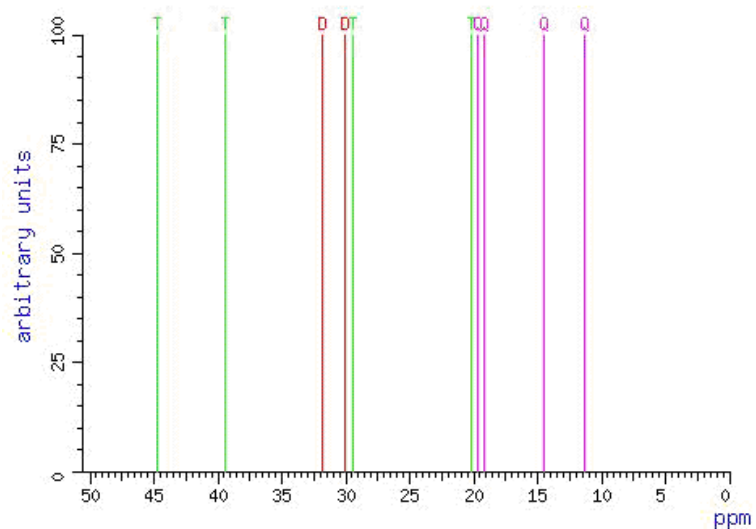
L1 ANSWER 1 OF 188 REGISTRY COPYRIGHT 2005 ACS on STN

IR Absorption Spectra



Spectrum ID: NIDA22444
Source: "Integrated Spectral Data Base System of Organic Compounds" data are provided by the National Institute of Advanced Industrial Science and Technology (Japan)

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Carbon-13 NMR Spectra

Spectrum ID: CNCC-57899-233D
Spectrometer: BRUKER WH-90
Source: Spectral data are provided by Wiley Subscription Services, Inc. (US)

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