

RTECS[®] (Registry of Toxic Effects of Chemical Substances) **STN**[®]

Subject Coverage	<ul style="list-style-type: none"> • Identification of Substances • Toxicity Data • Irritation Data • Federal Standards & Regulations • EPA, NIOSH, NTP, & OSHA Activities 	<ul style="list-style-type: none"> • Mutation Data • Tumorigenic Effects • Reproductive Effects • Toxicology reviews • Other Multiple Dose Data 																									
File Type	Directory, Substance, Property																										
Features	<table border="0"> <tr> <td>Thesaurus</td> <td>None</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Alerts (SDIs)</td> <td>Not Available</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CAS Registry Numbers[®]</td> <td><input checked="" type="checkbox"/></td> <td>Page Images</td> <td><input type="checkbox"/></td> <td>STN AnaVist <input type="checkbox"/></td> </tr> <tr> <td>Keep & Share</td> <td><input checked="" type="checkbox"/></td> <td>SLART</td> <td><input checked="" type="checkbox"/></td> <td>STN Easy <input checked="" type="checkbox"/></td> </tr> <tr> <td>Learning Database</td> <td><input type="checkbox"/></td> <td>Structures</td> <td><input type="checkbox"/></td> <td>STN Viewer <input type="checkbox"/></td> </tr> </table>		Thesaurus	None				Alerts (SDIs)	Not Available				CAS Registry Numbers[®]	<input checked="" type="checkbox"/>	Page Images	<input type="checkbox"/>	STN AnaVist <input type="checkbox"/>	Keep & Share	<input checked="" type="checkbox"/>	SLART	<input checked="" type="checkbox"/>	STN Easy <input checked="" type="checkbox"/>	Learning Database	<input type="checkbox"/>	Structures	<input type="checkbox"/>	STN Viewer <input type="checkbox"/>
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Learning Database	<input type="checkbox"/>	Structures	<input type="checkbox"/>	STN Viewer <input type="checkbox"/>																							
Record Content	<ul style="list-style-type: none"> • Substance information • Numeric toxicity data • Standards and regulations 																										
File Size	More than 174,470 records (02/12)																										
Coverage	1971-present																										
Updates	Quarterly																										
Language	English																										
Database Producer	Accelrys, Inc. 2440 Camino Ramon, Suite 300 San Ramon, CA 94583 Phone: 925-543-5400 Fax: 925-543-7376 E-mail: support@accelrys.com																										

Sources Journal Articles, Government Reports, and Unpublished EPA Test Submissions (TSCATS).

- User Aids**
- Online Helps (HELP DIRECTORY lists all help messages available)
 - [Comprehensive Guide to RTECS](#)
 - STNGUIDE
-

- Clusters**
- CASRNS
 - GOVREGS
 - HEALTH
 - NUMERIC
 - SAFETY
 - TOXICOLOGY
- [STN Database Clusters](#) information (PDF).
-

Pricing See the [STN Price List](#) or enter HELP COST at an arrow prompt (=>).

Search and Display Field Codes

Fields that allow left truncation are marked with an asterisk (*).

Search Field Name	Search Code	Search Examples	Display Codes
Basic Index * (contains single words from the chemical name (CN), class identifier (CI), chemical definition (DEF), irritation data (IRR), toxicology data (TOX), reproductive effects data (REP), mutation data (MUT), tumorigenic effects data (TUM), other multiple dose data (OMUL), reviews (CREV, TREV), threshold limit value (TLV), standards and regulations (SREG), NIOSH recommendations (NREC), national occupational survey (SURV), and federal agency status (ASTA) fields, as well as RTECS numbers (RTN), molecular formulas (MF), and CAS Registry Numbers (RN))	None (or /BI)	S POISONOUS S AROMATIC HYDROCARBON# S ?TOXIC? S C7H10 S 77772-15-7	ASTA, CI, CN, CREV, DEF, IRR, MF, MUT, NREC, OMUL, REP, RN, RTN, SREG, SURV, TLV, TOX, TREV, TUM
Accession Number Cancer Review (1)	/AN /CREV	S 10015/AN S HUMAN?/CREV S ANIMAL EVIDENCE/CREV	AN CREV
Cell Type (code and text)	/CELL	S BONE MARROW/CELL S BMR/CELL	MUT
Chemical Name (2)	/CN	S 3-BUTEN-2-OL/CN S "LEAD ARSENATE (DOT:OSHA)"/CN	CN
Class Identifier	/CI	S HORMONE/CI S PRIMARY IRRITANT/CI	CI
Definitions (1)	/DEF	S FERMENT? PRODUCT#/DEF	DEF
Dose Information (includes dosage amounts for IRR and MUT) (3,4)	/DOSE	S 82/DOSE S 35-40/DOSE (P) MUT/FA S DOSE<=50 (P) MG/IRR	IRR, MUT
Duration (includes duration information from IRR, MUT, OMUL, REP, TOX, and TUM)	/DUR	S 10D/DUR S 24H/DUR (P) IRR/FA	IRR, MUT, OMUL, REP, TOX, TUM
Effect (code and text) (includes effects from IRR, REP, OMUL, TOX, TUM) (5)	/EFF	S SHOCK/EFF S H08/EFF	IRR, REP, OMUL, TOX, TUM
Element Count (3)	/Element Symbol	S N>=5 S 2/P	Not displayed
Federal Agency Status (EPA, NIOSH, NTP, OSHA) (1)	/ASTA	S ASBESTOS/ASTA S SECTION 8/ASTA	ASTA
Field Availability	/FA	S CANCER REVIEW/FA S 24H/DUR (P) IRR/FA	FA
Field not Available	/FNA	S NATURAL?/CI AND DEF/FNA	Not displayed
Formula Weight (3)	/FW (or /MW)	S 61.05/FW	FW
International Standard (Document) Number (contains CODEN and NIOSH-assigned codes)	/ISN	S 47JMAE/ISN S JOCEAH/ISN (P) TOX/FA S NTIS?/ISN	ASTA, CREV, IRR, MUT, NREC, OMUL, REP, SREG, TLV, TREV, TOX, TUM
Irritation Data (contains route, organism, dose, duration, and effect information) (1)	/IRR	S EYE#/IRR S 500 MG/IRR S EYES (P) HUMAN/IRR	IRR

Search and Display Field Codes (cont'd)

Search Field Name	Search Code	Search Examples	Display Codes
Journal Title (6)	/JT	S TOXICOLOGY LETTERS/JT	ASTA, CREV, IRR, MUT, NREC, OMUL, REP, SREG, TLV, TREV, TOX, TUM
Molecular Formula	/MF	S C16H18N4/MF S C16 H18 N4/MF S C16H18N4O2S.2CLH/MF	MF
Mutation Data (includes system, organism, route, dose, duration, and cell type information) (1)	/MUT	S LUNG/MUT S 50 MG L/MUT	MUT
National Occupational Survey (1)	/SURV	S 786/SURV S TNF 33/SURV	SURV
NIOSH Recommendations (1)	/NREC	S BENZYL CHLORIDE/NREC	NREC
Number of Components (3)	/NC	S 4/NC	Not displayed
Organism (code and text) (includes organisms from IRR, MUT, OMUL, REP, TOX, and TUM) (5)	/ORGN	S MOUSE/ORGN S MUS/ORGN (P) MUT/FA	IRR, MUT, OMUL, REP, TOX, TUM
Other Multiple Dose Data (contains effect, route, organism, dose, and duration information) (1)	/OMUL	S MUSCLE WEAKNESS/OMUL	OMUL
Periodic Group	/PG	S A7/PG	Not displayed
Reproductive Effects Data contains effect, route, organism, dose, and duration information) (1)	/REP	S FETUS/REP S 550 MG KG/REP	REP
Route (includes routes from IRR, MUT, OMUL, REP, TOX, and TUM) (code and text) (5)	/RTE	S SKIN/RTE S ITT/RTE	IRR, MUT, OMUL, REP, TOX, TUM
RTECS Entry/Update Date (3)	/DATE	S DATE>=20000400	DATE
RTECS Number	/RTN	S DA0184000/RTN	RTN
Source (contains CODEN, NIOSH-assigned document codes, and collation information) (1,6)	/SO	S NTIS/SO S FAATDF 1997/SO S NTP/SO (P) ASTA/FA	ATSA, CREV, IRR, MUT, OMUL, NREC, REP, SREG, TLV, TOX, TREV, TUM
Standards and Regulations (1)	/SREG	S AIR(1A)DUST/SREG S DUST IN AIR/SREG	SREG
System (code and text) (5)	/SYS	S DNA DAMAGE/SYS S DND/SYS	MUT
Threshold Limit Value (1)	/TLV	S 300/TLV S MG 2/TLV	TLV
Toxicity Data (contains effect, route, organism, dose, and duration information) (1)	/TOX	S INHALATION/TOX S FLUID# CHANG?/TOX S (BRAIN (P) HMN)/TOX	TOX
Toxicology Review (1)	/TREV	S TOXICOLOGY REVIEW/TREV	TREV
Tumorigenic Data (contains effect, route, organism, dose, and duration information) (1)	/TUM	S (CARCINOMA(P)RODENT)/TUM S 17 G KG/TUM	TUM
Wiswesser Line Notation	/WLN	S 10SW5SW10/WLN	WLN

(1) Implied (S) proximity is available in this field.

(2) Includes the prime name and synonyms. Foreign names have the language in parentheses after the name, e.g., Cui Xing AN (Chinese). Trade names that are obsolete have (Obs.) following the name, e.g., Textilon (Obs.).

(3) Numeric search field that may be searched with numeric operators or ranges.

(4) Units are not searchable in the /DOSE search field.

(5) EXPAND with codes to see definitions, e.g., E V10/EFF.

(6) Use the FULL display formats, e.g., OMULFULL, to see the full references.

Property Search and Display Field Codes

Property Search Field Name	Default Unit	Search Code	Search Examples	Display Codes
Lethal Concentration Fifty, Aerosol (includes data from TOX) (1)	mg/m**3	/LC50A	S 11+-1/LC50A S LC50A>20 g/m**3	OMUL, TOX
Lethal Concentration Fifty, Vapor (includes data from TOX) (1)	ppm	/LC50V	S 175/LC50V	OMUL, TOX
Lethal Concentration Low, Aerosol (includes data from TOX) (1)	mg/m**3	/LCLOA	S 65-70/LCLOA	OMUL, TOX
Lethal Concentration Low, Vapor (includes data from TOX) (1)	ppm	/LCLOV	S 10<=LCLOV	OMUL, TOX
Lethal Dose Fifty (includes data from TOX) (1)	mg/kg	/LD50	S 2E-03/LD50 S LD50<1 UG/G(P)TOX/FA	OMUL, TOX
Lethal Dose Low (includes data from TOX) (1)	mg/kg	/LDLO	S 0.07+-1%/LDLO	OMUL, TOX
Toxic Concentration Low, Aerosol (includes data from OMUL, REP, TOX, and TUM) (1)	mg/m**3	/TCLOA	S TCLOA>250	OMUL, REP, TOX, TUM
Toxic Concentration Low, Vapor (includes data from OMUL, REP, TOX, and TUM) (1)	ppm	/TCLOV	S 96+-2/TCLOV	OMUL, REP, TOX, TUM
Toxic Dose Low (includes data from OMUL, REP, TOX, and TUM) (1)	mg/kg	/TDLO	S 14/TDLO	OMUL, REP, TOX, TUM

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

RTECS

DISPLAY and PRINT Formats

Any combination formats may be used to display or print answers. Multiple codes must be separated by spaces or commas, e.g., D L1 RN CN STR 4. The fields are displayed or printed in the order requested.

Hit-term highlighting is available in the following display fields: AN, CI, CN (only first name is highlighted), DATE, DEF, FW, MF, RN, RTN, and WLN. Highlighting must be ON during SEARCH to use the HIT, KWIC, and OCC formats.

Format	Content	Examples
AN	Accession Number	D L4 1-4 AN
ASTA	Federal Agency Status for EPA, NIOSH, NTP, and OSHA with source information	D L1 3 ASTA
CHC	Character Count	D CHC 1,3-5
CI	Class Identifier	D CI 5-10
CN	Chemical Name	D 1-3,7,8 CN
CREV	Cancer Review with source information	D CREV
DATE	RTECS Entry/Update Date	D DATE 1-5
DEF	Definitions	D L1 DEF 3
FA (1,2)	Field Availability	D 1,3,6 FA L5
FW (MW)	Formula Weight	D FW
IRR	Tabular display of irritation data (Route, Organism, Dose, Duration, Effect, Source)	D IRR 2
MF	Molecular Formula	D L8 MF 1-3
MUT	Tabular display of mutation data (System, Organism, Cell Type, Route, Dose, Duration, and Source)	D MUT
NREC	NIOSH recommendations with source information	D NREC
OMUL	Tabular display of other multiple dose data (Effect, Route, Organism, Dose, Duration, Source)	D OMUL
REP	Tabular display of reproductive effects data (Effect, Route, Organism, Dose, Duration, Source)	D REP
RN	CAS Registry Number	D RN 4
RTN	RTECS Number	D RTN 3,4
SREG	Standards and regulations with source information	D SREG
STF (2)	Flat Structure Diagram (no stereo bonds indicated)	D STF
STR (3)	Structure Diagram (includes stereo bonds and R/S/E/Z labels when available)	D 1-10 CN STR
STS (2,3)	Stereo Structure (includes stereo bonds when available)	D STS
SURV	National Occupational Survey (NOHS, NOES) with source information	D SURV 2
TLV	Threshold Limit Value with source information	D L3 4 TLV
TOX	Tabular display of toxicity data (Effect, Route, Organism, Dose, Duration, Source)	D TOX
TREV	Toxicology review with source information	D 5,3 TREV
TUM	Tabular display of tumorigenic data (Effect, Route, Organism, Dose, Duration, Source)	D TUM
WLN	Wiswesser Line Notation	D L4 WLN 3
ALL	AN, RN, RTN, MF, FW, CN, DEF, CI, WLN, DATE, CHC, STR, IRRFULL, MUTFULL, REPFULL, TUMFULL, TOXFULL, OMULFULL, CREVFULL, TREVFULL, TLVFULL, SREGFULL, NREC, SURV, ASTAFULL	D L3 2 ALL
ASTAFULL	ASTA with all titles listed under one header	D ASTAFULL
BIB	CREV, TREV, TLV	D 1-3,5 BIB
CREVFULL	CREV with all sources listed under one header and the complete cancer review references cited in the sources	D CREVFULL
EFFECTS	IRR, MUT, REP, TUM, TOX, OMUL	D EFFECTS 1-10
IDE	AN, RN, RTN, MF, FW, CN, DEF, CI, WLN, DATE, CHC, STR	D IDE
IRRFULL	IRR and complete irritation data references cited in the sources	D IRRFULL 1,4
LEGAL	SREG, NREC, SURV, ASTA	D LEGAL TOTAL
MUTFULL	MUT and complete mutation data references cited in the sources	D MUTFULL
OMULFULL	OMUL and the complete other multiple dose references cited in the sources	D OMULFULL
QRD (4)	IDE and fields containing hit terms. When the hit terms occur in a table, only the lines containing the hit terms are displayed. (QRD is the default)	D L4 7 QRD
REPFULL	REP and the complete reproductive effects references cited in the sources	D REPFULL 1-4

DISPLAY and PRINT Formats (cont'd)

Format	Content	Examples
SREGFULL	SREG with all sources listed under one heading and the complete standards and regulations references cited in the sources	D SREGFULL 2 L4
TLVFULL	TLV with all sources listed under one heading and the complete threshold limit value references cited in the sources	D L7 TLVFULL
TOXFULL	TOX and the complete toxicity data references cited in the sources	D TOXFULL 1-3
TREVFULL	TREV with sources listed under one heading and the complete toxicology review references cited in the sources	D TREVFULL
TUMFULL	TUM and complete tumorigenic data references cited in the sources	D 3 TUMFULL
HIT KWIC OCC (1)	Fields containing hit terms. When the hit term occurs in a table, only the line containing the hit term is displayed. Hit term with 20 words on either side (KeyWord-In-Context) Number of occurrences of hit terms and fields in which they occur	D HIT D KWIC NOH D OCC 1-5

(1) No online display fee for this format.

(2) Custom display only.

(3) Stereo structure diagrams are available only on graphics terminals and in offline prints.

(4) Only the first name in the CN field is displayed.

RTECS**SELECT, ANALYZE, and SORT Fields**

The SELECT command is used to create E-numbers or an L-number containing terms 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
Accession Number	AN	Y	N
Cancer Review	CREV	Y (2)	N
CAS Registry Number	RN	Y (3)	Y
CAS Registry Number and Chemical Name	CHEM	Y (3,4)	N
Cell Type	CELL	Y (2)	N
Chemical Name	CN	Y (5)	Y
	NAME	Y (3,5)	N
Class Identifier	CI	Y	N
Definitions	DEF	Y (3)	N
Effect	EFF	Y (2)	N
Federal Agency Status (EPA, NIOSH, NTP, OSHA)	ASTA	Y (2)	N
Formula Weight	FW	Y	Y
Journal Title	JT	Y (2)	N
Molecular Formula	MF	Y (default)	N
Molecular Weight	MW	Y	Y
National Occupational Survey (NOHS, NOES)	SURV	Y (2)	N
NIOSH Recommendations	NREC	Y (2)	N
Occurrence Count of Hit Terms	OCC	N	Y
Organism	ORGN	Y (2)	N
Route	RTE	Y (2)	N
RTECS Entry/Update Date	DATE	Y	Y
RTECS Number	RTN	Y	Y
Source	SO	Y (2,6)	N
Standards and Regulations	SREG	Y (2)	N
System	SYS	Y (2)	N
Threshold Limit Value	TLV	Y (2)	N
Toxicology Review	TREV	Y (2)	N
Wiswesser Line Notation	WLN	Y	Y

(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 MF

(2) SELECT HIT and ANALYZE HIT are not valid with this field

(3) Appends /BI to the terms created by SELECT.

(4) SELECT HIT and ANALYZE HIT are valid only when search term is the first name in the CN field or is a CAS Registry Number.

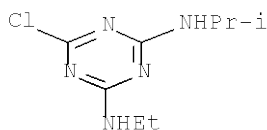
(5) SELECT HIT and ANALYZE HIT are valid only when search term is the first name.

(6) Selects or analyzes the CODEN with /SO appended to the terms created by SELECT.

Sample Records

DISPLAY ALL

L1 ANSWER 1 of 1 RTECS COPYRIGHT 2012 U.S. GOVERNMENT on STN
 CAS Registry Number (RN): 1912-24-9 RTECS
 Other Registry Numbers: 11121-31-6; 12040-45-8; 12797-72-7; 39400-72-1;
 69771-31-9; 93616-39-8
 RTECS Number (RTN): XY5600000
 Molecular Formula (MF): C8 H14 Cl N5
 Formula Weight (FW): 215.72
 Chemical Name (CN): s-Triazine, 2-chloro-4-ethylamino-6-isopropylamino-;
 1,3,5-Triazine-2,4-diamine,
 6-chloro-N-ethyl-N'-(1-methylethyl)- (9CI);
 1-Chloro-3-ethylamino-5-isopropylamino-2,4,6-
 triazine; 1-Chloro-3-ethylamino-5-isopropylamino-s-
 triazine; 2-Aethylamino-4-chlor-6-isopropylamino-
 1,3,5-triazin (German);
 2-Aethylamino-4-isopropylamino-6-chlor-1,3,5-triazin
 (German); 2-Chloro-4-(2-propylamino)-6-ethylamino-s-
 triazine; 2-Chloro-4-ethylamineisopropylamine-s-
 triazine; 2-Chloro-4-ethylamino-6-isopropylamino-
 1,3,5-triazine;
 2-Chloro-4-ethylamino-6-isopropylamino-s-triazine;
 6-Chloro-N-ethyl-N'-(1-methylethyl)-1,3,5-triazine-
 2,4-diamine;
 6-Chloro-N-ethyl-N9-(1-methylethyl)-1,3,5-triazine-
 2,4-diamine; A 361; Aatram 20G; Aatrex; Aatrex 4L;
 Aatrex 80W; Aatrex nine-O; Aktikon; Aktikon PK;
 Aktinit A; Aktinit PK; Aneldazin; Argezin; Atrataf;
 Atrazin; Atrazine; Atrazine (ACGIH); Azoprim; Ceasin
 50; Cekuzina-T; Chromozin; Cyazin; G 30027; Geigy
 30,027; Gesaprim; Herbatoxol; Hungazin; Hungazin PK;
 Oleogesaprim; Primatol A; Radazin; Technical
 atrazine; Technical grade atrazine; Triazine A 1294;
 Vectal; Vectal SC; Weedex A; Wonuk; Zeapos; Zeazin;
 Zeazine; Zeopos
 Class Identifier (CI): Agricultural Chemical; Tumorigen; Mutagen; Human
 Data; Primary Irritant; Reproductive Effector
 Wiswesser Notation (WLN): T6N CN ENJ BMY1&1 DM2 FG
 Entry/Update Date (DATE): Dec 2011
 Character Count: 50668



IRRITATION DATA (IRR):

Route	Organism	Dose	Effect	Source
RTE	ORGN	DOSE	EFF	SO
skin	rabbit	38 mg open	Mild	CIGET* -, -, 1977
eyes	rabbit	6320 ug	Severe	CIGET* -, -, 1977
skin	Mammal - species unspecified (species unspecified)	500 mg	Mild	VRDEA5 (5), 133, 1977

RTECS

eyes	Mammal - species unspecified (species unspecified)	100 mg	Severe	VRDEA5 (5),133,1977
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IRRITATION DATA REFERENCES:

CIGET* Ciba-Geigy Toxicology Data/Indexes (Ciba-Geigy Corp., 556 Morris Ave., Summit, NJ 07901)

VRDEA5 Vrachebnoe Delo Medical Practice. (V/O Mezhdunarodnaya Kniga, 113095 Moscow, USSR) No.1- 1918-

MUTATION DATA (MUT):

System SYS	Organism ORGN	Cell Type CELL	Route RTE	Dose DOSE	Dur. DUR	Source SO
specific locus test	Drosophila melanogaster		oral	5 mmol/L		MUREAV 280,291,1992
sex chromosome loss and nondisjunction	Drosophila melanogaster		oral	100 ppm		JTEHD6 3,691,1977
dominant lethal test	Drosophila melanogaster		parenteral	556 umol/L		JTEHD6 3,691,1977
dominant lethal test	Drosophila melanogaster		oral	100 ppm		JTEHD6 3,691,1977
sex chromosome loss and nondisjunction	Neurospora crassa			10 mg/L		MUREAV 167,35,1986
mutation in microorganisms	Aspergillus nidulans			6 mmol/L (+S9)		MUREAV 74,77,1980
gene conversion and mitotic recombination	Aspergillus nidulans			6 mmol/L		MUREAV 74,77,1980
mutation in microorganisms	Schizosaccharomyces pombe			6 mmol/L (+S9)		MUREAV 74,77,1980
DNA damage	human	lymphocyte		100 mg/L		MUREAV 344,41,1995
unscheduled DNA synthesis	human	fibroblast		3 mmol/L		MUREAV 74,77,1980
cytogenic analysis	human	lymphocyte		1 mg/L		MUREAV 281,295,1992
DNA damage	rat		oral	875 mg/kg		MUREAV 209,145,1988
host-mediated assay	rat			100 mg/kg		CECED9 6388,328,1980

other mutation test systems	Mouse		oral	216 mg/kg	90D-C	EMMUEG 19,77,1992
cytogenic analysis	Mouse		oral	72 mg/kg	30D-C	EMMUEG 19,77,1992
dominant lethal test	Mouse		oral	1500 mg/kg		MUREAV 74,77,1980
host-mediated assay	Mouse			100 mg/kg		MUREAV 74,77,1980
mutation in microorganisms	hamster	lung		3 mmol/L (+S9)		MUREAV 74,77,1980
DNA damage	Mouse		intraperitoneal	500 mg/kg		MUREAV 493,1,2001
cytogenic analysis	hamster		oral	5.0 umol/L		MUREAV 608,28,2006
sperm morphology	human	sperm		100 umol/L	1H	REPTED 22,508,2006
DNA damage	rat		oral	2100 mg/kg	7D	MUREAV 654,145,2008
micronucleus test	rat		oral	2100 mg/kg	7D	MUREAV 654,145,2008
micronucleus test	rat		oral	2100 mg/kg		MUREAV 654,145,2008
micronucleus test	other fish		multiple	6.25 ug/L	72H-C	PCBPBS 90,42,2008
DNA damage	other fish		multiple	6.25 ug/L	72H-C	PCBPBS 90,42,2008

MUTATION DATA REFERENCES:

MUREAV Mutation Research (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964-
 JTEHD6 Journal of Toxicology and Environmental Health (Hemisphere Pub., 1025 Vermont Ave., NW, Washington, DC 20005) V.1- 1975/76-
 CECED9 Commission of the European Communities, Report EUR (Office for Official Pub., 5 rue du Commerce, Luxembourg L-2985, Luxembourg) 1967-
 EMMUEG Environmental and Molecular Mutagenesis (Alan R. Liss, Inc., 41 E. 11th St., New York, NY 10003) V.10- 1987-
 REPTED Reproductive Toxicology (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.1- 1987-
 PCBPBS Pesticide Biochemistry and Physiology (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1971-

REPRODUCTIVE EFFECTS DATA (REP):

Effect EFF	Route RTE	Organism ORGN	Dose DOSE	Duration DUR	Source SO
T34	oral	rat	TDLo 7 g/kg	6-15D preg	JTEHD6 24,307,1988

RTECS

T19;T46	oral	rat	TDL0 700 mg/kg	6-15D preg	JTEHD6 24,307,198 8
T19;T85	oral	rat	TDL0 720 mg/kg	10D pre	APHHDU 83,79,1995
T25	subcutaneous	rat	TDL0 2400 mg/kg	3-9D preg	BECTA6 9,301,1973
T35	subcutaneous	rat	TDL0 6 g/kg	3-9D preg	BECTA6 9,301,1973
T26;T34;T35	subcutaneous	Mouse	TDL0 418 mg/kg	6-14D preg	NTIS** PB223-160
T25;T34;T35	oral	rabbit	TDL0 975 mg/kg	7-19D preg	JTEHD6 24,307,198 8
T46	oral	rabbit	TDL0 975 mg/kg	7-19D preg	JTEHD6 24,307,198 8
T53	oral	rat	TDL0 125 mg/kg	5D post	TOSCF2 52,68,1999
T01;T02;T03	intraperiton eal	rat	TDL0 1028 mg/kg	60D male	JJATDK 20,61,2000
T26;T75;T81	oral	rat	TDL0 1000 mg/kg	6-10D preg	REPTED 15,61,2000
T75;T81	oral	rat	TDL0 1000 mg/kg	11-15D preg	REPTED 15,61,2000
T16;T25;T35	oral	rat	TDL0 500 mg/kg	6-10D preg	REPTED 15,61,2000
T25	oral	rat	TDL0 600 mg/kg	8-10D preg	REPTED 15,61,2000
T75	oral	rat	TDL0 1000 mg/kg	6-10D preg	REPTED 15,61,2000
T54	oral	rat	TDL0 35 mg/kg	10D preg-23D post	TOXID9 72,120,200 3
T25	oral	rat	TDL0 200 mg/kg	6-10D preg	TOXID9 72,77,2003
T75;T81;T83	oral	rat	TDL0 1260 mg/kg	10-22D preg/23D post	TOSCF2 76,366,200 3
T44;T53;T91	oral	rat	TDL0 500 mg/kg	15-19D preg	TXAPA9 195,23,200 4
T81	oral	rat	TDL0 300 mg/kg	17-19D preg	TOXID9 44,230,200 5
T81	oral	rat	TDL0 700 mg/kg	13-19D preg	TOXID9 44,230,200

					5
T54;T91	subcutaneous	Mouse	TDLo 588 mg/kg	10-21D preg/9D post	TOXID9 78,10,2004
T41;T52;T83	unreported	rat	TDLo 125 mg/kg	5D post	TOXID9 78,116,200 4
T44	oral	rat	TDLo 300 mg/kg	15-17D preg	TOXID9 78,218,200 4
T44;T91	oral	rat	TDLo 300 mg/kg	17-19D preg	TOXID9 78,218,200 4
T44;T91	oral	rat	TDLo 700 mg/kg	13-19D preg	TOXID9 78,218,200 4
T53;T81	oral	rat	TDLo 500 mg/kg	15-19D preg	TOXID9 66,371,200 2
T53	oral	rat	TDLo 500 mg/kg	15-19D preg	TOXID9 66,373,200 2
T77	unreported	rat	TDLo 500 mg/kg	15-19D preg	TOXID9 60,391,200 1
T81	unreported	rat	TDLo 875 mg/kg	14-20D preg	TOXID9 90,190,200 6
T41;T52;T85	oral	Mouse	TDLo 29 mg/kg	14-21D preg/1-21D post	REPTED 22,263,200 6
T83;T87	subcutaneous	Mouse	TDLo 6.16000E+0 5 ug/kg	10D preg-10D post	TXAPA9 214,69,200 6
T81;T83;T86	oral	rat	TDLo 500 mg/kg	15-19D preg	TXAPA9 218,238,20 07
T91	oral	rat	TDLo 500 mg/kg	15-19D preg	TXAPA9 218,238,20 07

REPRODUCTIVE EFFECTS REFERENCES:

JTEHD6 Journal of Toxicology and Environmental Health (Hemisphere Pub., 1025 Vermont Ave., NW, Washington, DC 20005) V.1- 1975/76-

APHHDU Acta Physiologica Hungarica (Kultura, POB 149, H-1389 Budapest, Hungary) V.61- 1983-

BECTA6 Bulletin of Environmental Contamination and Toxicology (Springer-Verlag New York, Inc., Service Center, 44 Hartz Way, Secaucus, NJ 07094) V.1- 1966-

NTIS** National Technical Information Service (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information.

TOSCF2 Toxicological Sciences (Oxford University Press, 6277 Sea Harbor Drive, Orlando, FL 32887) V 41, Jan. 1998-

JJATDK JAT, Journal of Applied Toxicology (John Wiley & Sons Ltd., Baffins Lane, Chichester, W. Sussex PO19 1UD, UK) V.1- 1981-

RTECS

REPTED Reproductive Toxicology (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.1- 1987-

TOXID9 Toxicologist (Soc. of Toxicology, Inc., 475 Wolf Ledge Parkway, Akron, OH 44311) V.1- 1981-

TXAPA9 Toxicology and Applied Pharmacology (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1959-

TUMORIGENIC DATA (TUM):

Effect EFF	Route RTE	Organism ORGN	Dose DOSE	Duration DUR	Source SO
V01;P61;T64	oral	rat	TDL0 3.3775E+04 mg/kg	2Y-C	NEOLA4 37,533,199 0
V03;J60;L60	oral	Mouse	TDL0 9000 mg/kg	78W-I	NTIS** PB223-159
V01;T69	oral	rat	TDL0 36.5 g/kg	2Y-C	HBPTO* 2,1514,200 1

TUMORIGENIC DATA REFERENCES:

NEOLA4 Neoplasma (Karger-Libri, P.O. Box, CH-4009 Basel, Switzerland) V.4-1957-

NTIS** National Technical Information Service (Springfield, VA 22161)
Formerly U.S. Clearinghouse for Scientific & Technical Information.

HBPTO* Handbook of pesticide toxicology Robert Krieger ed, Academic press, 2001

TOXICITY DATA (TOX):

Effect EFF	Route RTE	Organism ORGN	Dose DOSE	Duration DUR	Source SO
	oral	rat	LD50 672 mg/kg		FAATDF 7,299,1986
	inhalation	rat	LC50 5200 mg/m**3	4H	FMCHA2 -,C29,1991
	skin	rat	LD50 >.12500E+05 mg/kg		GISAAA 55(7),87,1 990
	intraperitoneal	rat	LD50 235 mg/kg		PESTD5 17,351,197 6
	oral	Mouse	LD50 850 mg/kg		85GMAT -,36,1982
	intraperitoneal	Mouse	LD50 626 mg/kg		PESTD5 17,351,197 6
	skin	rabbit	LD50 7500 mg/kg		28ZEAL 5,15,1976
	oral	hamster	LD50 1 g/kg		TXAPA9 48,A192,19 79

	unreported	Mammal - species unspecified (species unspecified)	LD50 1400 mg/kg		GISAAA 44(6),81,1 979
L60;V16	oral	rat	TDLo 300 mg/kg		TOSCF2 53,297,200 0
U01	oral	rat	TDLo 40 mg/kg		TOXID9 72,77,2003
N30;P27;S02	intraperitoneal	Mouse	TDLo 100 mg/kg		TOXID9 72,172,200 3
N74;P27	oral	Mouse	TDLo 875 mg/kg		TOXID9 72(Suppl 1),329,200 3
S02	oral	Mouse	TDLo 8.75 mg/kg		TOXID9 72(Suppl 1),329,200 3
L30	intraperitoneal	rat	TDLo 300 mg/kg		ETOPFR 12,1,2002
N16;N17;Y53	oral	rat	TDLo 200 mg/kg		TOXID9 78,117,200 4
Y64	intraperitoneal	rat	TDLo 100 mg/kg		TOXID9 44,400,200 5
S04	intraperitoneal	Mouse	TDLo 100 mg/kg		TOXID9 60,24,2001
G04	intraperitoneal	rat	TDLo 100 mg/kg		TOXID9 90,304,200 6
F23;J22;U28	oral	rat	LD50 2 g/kg		ENTOX* -,188,2005
F23;J22;U28	skin	rat	LD50 3 g/kg		ENTOX* -,188,2005
	inhalation	rat	LC50 700 mg/kg		ENTOX* -,188,2005
	oral	rabbit	LD50 750 mg/kg		ENTOX* -,188,2005
N12;N30	oral	rat	TDLo 75 mg/kg		TOXID9 -,18,2008
N02;N30	oral	rat	TDLo 75 mg/kg		TOXID9 -,30,2009
L30	in tank	other fish	TCLo 0.17 mg/L	21D	TIVIEQ 31,217,199 5

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TOXICITY DATA REFERENCES:

FAATDF Fundamental and Applied Toxicology (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1-40, 1981-97. For publisher information, see TOSCF2

FMCHA2 Farm Chemicals Handbook (Meister Pub., 37841 Euclid Ave., Willoughy, OH 44094)

GISAAA Gigena i Sanitariya For English translation, see HYSAAV. (V/O Mezhdunarodnaya Kniga, 113095 Moscow, USSR) V.1- 1936-

PESTD5 Proceedings of the European Society of Toxicology (Amsterdam, Netherlands) V.16-18, 1975-77. Discontinued.

85GMAT "Toxicometric Parameters of Industrial Toxic Chemicals Under Single Exposure," Izmerov, N.F., et al., Moscow, Centre of International Projects, GKNT, 1982

28ZEAL "Pesticide Index," Frear, E.H., ed., State College, PA, College Science Pub., 1969

TXAPA9 Toxicology and Applied Pharmacology (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1959-

TOSCF2 Toxicological Sciences (Oxford University Press, 6277 Sea Harbor Drive, Orlando, FL 32887) V 41, Jan. 1998-

TOXID9 Toxicologist (Soc. of Toxicology, Inc., 475 Wolf Ledge Parkway, Akron, OH 44311) V.1- 1981-

ETOPFR Environmental Toxicology and Pharmacology (Elsevier Science, P O.Box 7247-7682, Philadelphia, PA 19170 -7682, USA OR Elsevier Science B.V., P.O.Box 1270, 1000 BG Amsterdam, The Netherlands) V.1- Feb.1996-

ENTOX* Encyclopedia of Toxicology: Reference Book, Elsevier, 2005

TIVIEQ Toxicology In Vitro (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.1- 1987-

OTHER MULTIPLE DOSE DATA (OMUL):

Effect EFF	Route RTE	Organism ORGN	Dose DOSE	Duration DUR	Source SO
N30;Z72	oral	rat	TDLo 6 g/kg	30D-I	TOXID9 54,366,200 0
L30;P08;Y01	oral	rat	TDLo 3.3572E+04 mg/kg	22W-I	KHZDAN 12,114,196 9
M13;M16;P30	oral	rat	TDLo 2800 mg/kg	14D-I	BECTA6 36,325,198 6
L70;Y03;Y15	oral	rat	TDLo 4200 mg/kg	7D-I	JJATDK 7,373,1987
L30;Y01;Y15	inhalation	rat	TCLo 10 mg/m**3	26W-I	KHZDAN 12,114,196 9
L70	oral	Mouse	TDLo 2100 mg/kg	21D-I	AECTCV 24,449,199 3
G02;G07;G30	oral	dog	TDLo 9125 mg/kg	1Y-C	NTIS** OTS0543210
P30;R03	skin	rabbit	TDLo 25 g/kg	25D-C	NTIS** OTS0555001
N02;N19	oral	pig	TDLo 38 mg/kg	19D-I	TOLED5 85,9,1996
T14	oral	rat	TDLo 3825 mg/kg	21D-I	REPTED 10,257,199 6

N30	oral	rat	TDLo 250 mg/kg	5D-I	TOSCF2 52,68,1999
K30;L70;Y53	subcutaneous	rat	TDLo 45 mg/kg	3W-I	LIFSAK 69,901,200 1
U01	oral	rat	TDLo 125 mg/kg	5D-I	REPTED 15,61,2000
Z01	oral	rat	TDLo 600 mg/kg	3D-I	REPTED 15,61,2000
N02;N30	oral	rat	TDLo 3150 mg/kg	21D-I	TOSCF2 53,297,200 0
N02	oral	rat	TDLo 1575 mg/kg	21D-I	TOSCF2 53,297,200 0
T11	oral	rat	TDLo 900 mg/kg	3D-I	TOSCF2 53,297,200 0
T12;U01	oral	rat	TDLo 400 mg/kg	8D-I	TOSCF2 58,135,200 0
N02;N30;T25	oral	rat	TDLo 800 mg/kg	8D-I	TOSCF2 58,135,200 0
T13;T24;U01	oral	rat	TDLo 800 mg/kg	8D-I	TOSCF2 58,135,200 0
N17	oral	rat	TDLo 1600 mg/kg	8D-I	TOSCF2 58,135,200 0
U01	intraperitoneal	rat	TDLo 360 mg/kg	23D-I	JAPTO* 20,61,2000
N71;T01;Z72	intraperitoneal	rat	TDLo 1020 mg/kg	60D-I	JAPTO* 20,61,2000
T02	intraperitoneal	rat	TDLo 2040 mg/kg	60D-I	JAPTO* 20,61,2000
N60;T15	oral	rat	TDLo 1.45600E+05 mg/kg	104W-C	HBPTO* 1,738,2001
N19	unreported	rat	TDLo 840 mg/kg	7D-C	HBPTO* 1,738,2001
N30;T13;Y21	oral	rat	TDLo 150 mg/kg	3D-I	HBPTO* 1,738,2001
N17;N30;T14	unreported	rat	TDLo 1575 mg/kg	21D-C	HBPTO* 1,738,2001
N19	oral	rat	TDLo 98 mg/kg	4W-C	JTEHD6 43,169,199 4

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R25	oral	rat	TDLo 7280 mg/kg	52W-C	JTEHD6 43,169,199 4
Z01	oral	rat	TDLo 4200 mg/kg	14D-I	JTEHD6 43,155,199 4
U01;Z71;Z74	oral	rat	TDLo 1400 mg/kg	14D-I	JTEHD6 43,155,199 4
N17;N19;P30	oral	rat	TDLo 1400 mg/kg	14D-I	JTEHD6 43,155,199 4
N30;P30;T13	oral	rat	TDLo 4200 mg/kg	14D-I	JTEHD6 43,155,199 4
T13;V05	oral	rat	TDLo 600 mg/kg	2D-I	JTEHF8 43,183,199 4
U01	oral	rat	TDLo 2970 mg/kg	90D-I	HBPTO* 2,1512,200 1
G30	oral	dog	TDLo 9100 mg/kg	52W-I	HBPTO* 2,1512,200 1
U01	oral	Mouse	TDLo 20.8 g/kg	78W-C	HBPTO* 2,1514,200 1
U01	oral	rat	TDLo 14.6 g/kg	2Y-C	HBPTO* 2,1514,200 1
N16	oral	rat	TDLo 150 mg/kg	3D-I	REPTED 16,275,200 2
N16	oral	rat	TDLo 1350 mg/kg	27D-I	REPTED 16,275,200 2
N16	oral	rat	TDLo 420 mg/kg	7D-I	JSTBBK 33,141,198 9
P72	oral	rat	TDLo 300 mg/kg	3D-I	HBPTO* 1,777,2001
N08	oral	rat	TDLo 1440 mg/kg	6D-I	BESCE5 9,60,1996
N17	oral	rat	TDLo 318.5 mg/kg	13W-C	JTEHD6 43,169,199 4
N30	oral	rat	TDLo 5460 mg/kg	39W-C	JTEHD6 43,169,199 4

U01	oral	rat	TDLo 910 mg/kg	13W-C	JTEHD6 43,169,199 4
Z01	oral	rat	TDLo 1.4700E+04 mg/kg	105W-C	JTEHD6 43,169,199 4
N19	oral	rat	TDLo 105 mg/kg	30D-C	JTEHD6 43,169,199 4
N17	oral	rat	TDLo 315 mg/kg	90D-C	JTEHD6 43,169,199 4
N04	oral	rat	TDLo 800 mg/kg	40W-C	JTEHD6 43,169,199 4
N60	oral	rat	TDLo 1.4700E+04 mg/kg	105W-C	JTEHD6 43,169,199 4
N60	oral	rat	TDLo 7280 mg/kg	52W-C	JTEHD6 43,169,199 4
N02	oral	rat	TDLo 1500 mg/kg	5D-I	TOXID9 72,133,200 3
U01	oral	rat	TDLo 1572.2 mg/kg	2W-C	FCTOD7 41,1811,20 03
F15;A70;Z73	oral	rat	TDLo 18.87 g/kg	24W-C	FCTOD7 41,1811,20 03
L30;Y07;Y16	intraperitoneal	rat	TDLo 30 mg/kg	3D-I	ETOPFR 12,1,2002
T13;Z74	oral	rat	TDLo 900 mg/kg	9D-I	RTOPDW 35,468,200 2
T13	oral	rat	TDLo 750 mg/kg	25D-I	RTOPDW 35,468,200 2
U01	oral	rat	TDLo 800 mg/kg	10D-I	TXCYAC 195,177,20 04
N73	oral	Mouse	TDLo 350 mg/kg	14D-I	TXCYAC 209,15,200 5
N73;U01	oral	Mouse	TDLo 3500 mg/kg	14D-I	TXCYAC 209,15,200 5
M71;N73;U01	oral	Mouse	TDLo 7000 mg/kg	14D-I	TXCYAC 209,15,200 5

RTECS

F40	oral	rat	TDLo 300 mg/kg	3D-I	TOXID9 44,230,200 5
N02;P28	oral	pig	TDLo 20 mg/kg	20D-C	TXAPA9 197,351,20 04
N17;N18;Y53	oral	rat	TDLo 800 mg/kg	4D-I	TOXID9 78,117,200 4
N17;N18;Y53	oral	rat	TDLo 4200 mg/kg	21D-I	TOXID9 78,117,200 4
N02	oral	rat	TDLo 18.75 mg/kg	3D-I	TOXID9 44,353,200 5
N30	oral	rat	TDLo 225 mg/kg	3D-I	TOXID9 44,353,200 5
Y64	oral	Mouse	TDLo 1750 mg/kg	14D-I	TOXID9 44,400,200 5
Y65	oral	rat	TDLo 910 mg/kg	0.5Y-C	TOXID9 78,277,200 4
F17;Y64	oral	rat	TDLo 1820 mg/kg	0.5Y-C	TOXID9 78,277,200 4
N02;N17	unreported	rat	TDLo 1500 mg/kg	5D-I	TOXID9 66,339,200 2
N02	oral	rat	TDLo 3640 mg/kg	0.5Y-C	TOXID9 60,321,200 1
Y53;Y64	oral	Mouse	TDLo 109.2 mg/kg	26W-I	TOXID9 90,304,200 6
P71;S01;U01	oral	Mouse	TDLo 7000 mg/kg	14D-I	NTPTR* IMM-94003
F40;N73;N74	oral	Mouse	TDLo 3500 mg/kg	14D-I	NTPTR* IMM-94003
P27	oral	Mouse	TDLo 3500 mg/kg	14D-I	NTPTR* IMM-94003
U01	oral	Mouse	TDLo 4000 mg/kg	8D-I	NTPTR* IMM-94002
L70;M71;N74	oral	Mouse	TDLo 7500 mg/kg	15D-I	NTPTR* IMM-94002
P05;P71;S02	oral	Mouse	TDLo 7500 mg/kg	15D-I	NTPTR* IMM-94002

S03	oral	Mouse	TDLo 7500 mg/kg	15D-I	NTPTR* IMM-94002
P70	oral	Mouse	TDLo 375 mg/kg	15D-I	NTPTR* IMM-94002
N12	oral	rat	TDLo 50 mg/kg	4D-I	TOXID9 -,18,2008
N12;N30	oral	rat	TDLo 300 mg/kg	4D-I	TOXID9 -,18,2008
N02;N04;P28	oral	rat	TDLo 400 mg/kg	4D-I	TOXID9 -,271,2008
N30;Y40	oral	rat	TDLo 800 mg/kg	4D-I	TOXID9 12,471,200 8
N17;N30	oral	rat	TDLo 150 mg/kg	3D-I	TOXID9 -,121,2009
D17	oral	rat	TDLo 420 mg/kg	2W-I	JTSCDR 34,SP147,2 009
T12;T14;Z71	oral	rat	TDLo 4200 mg/kg	2W-I	JTSCDR 34,SP147,2 009
D17;K01;T14	oral	rat	TDLo 840 mg/kg	4W-I	JTSCDR 34,SP147,2 009
T14;Z71;Z74	oral	rat	TDLo 8400 mg/kg	4W-I	JTSCDR 34,SP147,2 009
F17	oral	rat	TDLo 2440 mg/kg	244D-C	NETEEC 33,263,201 1
F40	oral	rat	TDLo 3350 mg/kg	335D-C	NETEEC 33,263,201 1
F17;F40;Y64	oral	rat	TDLo 3650 mg/kg	1Y-C	NETEEC 33,263,201 1

OTHER MULTIPLE DOSE REFERENCES:

TOXID9 Toxicologist (Soc. of Toxicology, Inc., 475 Wolf Ledge Parkway, Akron, OH 44311) V.1- 1981-

KHZDAN Khigiiena i Zdraveopazvane Hygiene and Sanitation. (Hemus, Blvd. Russki 6, Sofia, Bulgaria) V.9- 1966-

BECTA6 Bulletin of Environmental Contamination and Toxicology (Springer-Verlag New York, Inc., Service Center, 44 Hartz Way, Secaucus, NJ 07094) V.1- 1966-

JJATDK JAT, Journal of Applied Toxicology (John Wiley & Sons Ltd., Baffins Lane, Chichester, W. Sussex PO19 1UD, UK) V.1- 1981-

AECTCV Archives of Environmental Contamination and Toxicology (Springer-Verlag New York, Inc., Service Center, 44 Hartz Way, Secaucus, NJ 07094) V.1- 1973-

NTIS** National Technical Information Service (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information.

TOLED5 Toxicology Letters (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1977-

RTECS

REPTED Reproductive Toxicology (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.1- 1987-

TOSCF2 Toxicological Sciences (Oxford University Press, 6277 Sea Harbor Drive, Orlando, FL 32887) V 41, Jan. 1998-

LIFSAK Life Sciences (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.1-8, 1962-69; V.14- 1974-

JAPTO* Journal of Applied Toxicology (John Wiley & Sons, Ltd , Oldlands Way Bognor Regis West Sussex, PO22 9SA England) V.1- 1981-

HBPTO* Handbook of pesticide toxicology Robert Krieger ed, Academic press, 2001

JTEHD6 Journal of Toxicology and Environmental Health (Hemisphere Pub., 1025 Vermont Ave., NW, Washington, DC 20005) V.1- 1975/76-

JTEHF8 Journal of Toxicology and Environmental Health, Part A (Taylor & Francis, 47 Runway Rd., Suite G, Levittown, PA 19057) V.53- 1998-

JSTBBK Journal of Steroid Biochemistry (Pergamon Press Ltd., Headington Hill Hall, Oxford OX3 0BW, UK) V.1- 1969-

BESCE5 Biomedical and Environmental Sciences (Academic Press, 525 B St., Suite 1900, San Diego, CA 92101) V.1- 1988-

FCTOD7 Food and Chemical Toxicology (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.20- 1982-

ETOPFR Environmental Toxicology and Pharmacology (Elsevier Science, P O.Box 7247-7682, Philadelphia, PA 19170 -7682, USA OR Elsevier Science B.V., P.O.Box 1270, 1000 BG Amsterdam, The Netherlands) V.1- Feb.1996-

RTOPDW Regulatory Toxicology and Pharmacology (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1981-

TXCYAC Toxicology (Elsevier Scientific Pub. Ireland, Ltd., POB 85, Limerick, Ireland) V.1- 1973-

TXAPA9 Toxicology and Applied Pharmacology (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1959-

NTPTR* National Toxicology Program Technical Report Series (Research Triangle Park, NC 27709) No.206-

JTSCDR Journal of Toxicological Sciences (Japanese Soc. of Toxicological Sciences, 4th Floor, Gakkai Center Bldg., 4-16, Yayoi 2-chome, Bunkyo-ku, Tokyo 113, Japan) V.1- 1976-

NETEEC Neurotoxicology and Teratology (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.9- 1987-

CANCER REVIEW (CREV):

IARC Cancer Review:Animal Limited Evidence IMEMDT 53,441,1991

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IARC Cancer Review:Human Inadequate Evidence IMEMDT 53,441,1991

IARC Cancer Review:Human Inadequate Evidence IMEMDT 73,59,1999

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CANCER REVIEW REFERENCES:

IMEMDT IARC Monographs on the Evaluation of Carcinogenic Risk of Chemicals to Man (WHO Publications Centre USA, 49 Sheridan Ave., Albany, NY 12210) V.1-1972-

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TOXICOLOGY REVIEW CNDQA8 10(3),43,1975

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TOXICOLOGY REVIEW BCLPT* 96,131,2005

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TOXICOLOGY REVIEW JTEHD6 7,1,2004

TOXICOLOGY REVIEW REPTED 23,337,2007

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 TOXICOLOGY REVIEW FEREAC 73,37850,2008
 TOXICOLOGY REVIEW FESTAS 90,911,2008
 TOXICOLOGY REVIEW MUTAEX 26,19,2011
 TOXICOLOGY REVIEW MUTAEX 26,223,2011
 TOXICOLOGY REVIEW REPTED 31,337,2011
 TOXICOLOGY REVIEW REPTED 31,327,2011

TOXICOLOGY REVIEW REFERENCES:

CNDQA8 Cahiers de Nutrition et de Dietetique (Editions Meteore, 42, rue du Louvre, 75001 Paris, France) V.1- 1966-

DTTIAF Deutsche Tieraerztliche Wochenschrift (Hanover, Fed. Rep. Ger.) V.1-77, 1893-1970.

MUREAV Mutation Research (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964-

MUTAEX Mutagenesis (Oxford Univ. Press, Pinkhill House, Southfield Road, Eynsham, Oxford OX8 1JJ, UK) V.1- 1986-

ENTOX* Encyclopedia of Toxicology: Reference Book, Elsevier, 2005

BCLPT* Basic & clinical pharmacology & toxicology (Copenhagen, Denmark : Nordic Pharmacological Society Oxford, UK : Distributed by Blackwell Munksgaard) V 94-2004-

JTEHD6 Journal of Toxicology and Environmental Health (Hemisphere Pub., 1025 Vermont Ave., NW, Washington, DC 20005) V.1- 1975/76-

REPTED Reproductive Toxicology (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.1- 1987-

FEREAC Federal Register (U.S. Government Printing Office, Supt. of Documents, Washington, DC 20402) V.1- 1936-

JTPAE7 Journal of Toxicologic Pathology (Nihon Dokusei Byori Gakkai, editor, 3-25-8 Nishi- shinbashi, Minato-ku, Tokyo 105, Japan) V.1- 1988

ITODC* Immunotoxicology of Drugs and Chemicals: an Experimental and Clinical Approach Volume I: Principles and Methods of Immunotoxicology. Edited by: J. Descotes, Elsevier B.V., 2009

HUTOX* Human Toxicology, Edited by: Jacques Descotes, Elsevier B V., 1996

HTOPA* Handbook of Toxicologic Pathology (Second Edition) Edited by: Wanda M Haschek, Colin G. Rousseaux and Matthew A. Wallig, Elsevier Inc, 2002

JTSCDR Journal of Toxicological Sciences (Japanese Soc. of Toxicological Sciences, 4th Floor, Gakkai Center Bldg., 4-16, Yayoi 2-chome, Bunkyo-ku, Tokyo 113, Japan) V.1- 1976-

FESTAS Fertility and Sterility (American Fertility Soc., 608 13th Ave. S, Birmingham, AL 35282) V.1- 1950-

THRESHOLD LIMIT VALUE (TLV):

ACGIH TLV-TWA 5 mg/m3 DTLVS* TLV/BEI,2010

ACGIH TLV-Not classifiable as human carcinogen DTLVS* TLV/BEI,2010

THRESHOLD LIMIT VALUE REFERENCES:

DTLVS* The Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs) booklet issues by American Conference of Governmental Industrial Hygienists (ACGIH), Cincinnati, OH, 1996

STANDARD AND REGULATIONS (SREG):

EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION

FEREAC 54,7740,1989

EPA FIFRA 1998 STATUS OF PESTICIDES: Supported RBREV* -,87,1998

OEL-AUSTRALIA: TWA 5 mg/m3, JUL2008

OEL-AUSTRIA: MAK-TMW 2 mg/m3, inhal, sen, 2007

OEL-BELGIUM: TWA 5 mg/m3, MAR2002

OEL-DENMARK: TWA 2 mg/m3, OCT 2002

OEL-FINLAND: TWA 10 mg/m3, STEL 20 mg/m3, SEP2009

OEL-FRANCE: VME 5 mg/m3, FEB2006

RTECS

OEL-GERMANY: MAK 2 mg/m3 (inhalable), 2005
 OEL-KOREA: TWA 5 mg/m3, 2006
 OEL-MEXICO: TWA 10 mg/m3, 2004
 OEL-THE NETHERLANDS: MAC-TGG 5 mg/m3, 2003
 OEL-NEW ZEALAND: TWA 5 mg/m3, JAN2002
 OEL-NORWAY: TWA 5 mg/m3, JAN1999
 OEL-PERU: TWA 5 mg/m3, JUL2005
 OEL-RUSSIA: STEL 2 mg/m3, JUN2003
 OEL-SWITZERLAND: MAK-W 2 mg/m3, DEC2006
 OEL IN ARGENTINA, BULGARIA, COLOMBIA, JORDAN check ACGIH TLV;
 OEL IN SINGAPORE, VIETNAM check ACGIH TLV

STANDARDS AND REGULATIONS REFERENCES:

FEREAC Federal Register (U.S. Government Printing Office, Supt. of Documents, Washington, DC 20402) V.1- 1936-

RBREV* Status of Pesticides in Registration, Reregistration, and Special Review (Rainbow Report), Special Review and Reregistration Division Office of Pesticide Programs U.S. Environmental Protection Agency, 401 M. Street, S.W., Washington, D.C. 20460, Spring 1998

NIOSH RECOMMENDATIONS (NREC):

NIOSH REL TO ATRAZINE-air:10H TWA 5 mg/m3 NIOSH* DHHS #92-100,1992

NATIONAL OCCUPATIONAL SURVEY (SURV):

NOHS 1974: HZD 18420; NIS 1; TNF 165; NOS 2; TNE 331

NATIONAL OCCUPATIONAL SURVEY (SURV):

NOES 1983: HZD 18420; NIS 1; TNF 44; NOS 9; TNE 1001; TFE 123

FEDERAL AGENCY STATUS (ASTA):

ATSDR TOXICOLOGY PROFILE (NTIS** PB2004/100001)
 EPA GENETOX PROGRAM 1988, Positive: Aspergillus-reversion; S cerevisia
 EPA GENETOX PROGRAM 1988, Negative: N crassa-aneuploidy
 EPA GENETOX PROGRAM 1988, Inconclusive: D melanogaster-whole sex chrom
 EPA GENETOX PROGRAM 1988, Inconclusive: D melanogaster-nondisjunction
 EPA GENETOX PROGRAM 1988, Inconclusive: D melanogaster Sex-linked leth
 EPA TSCA Section 8(b) CHEMICAL INVENTORY
 EPA TSCA Section 8(d) unpublished health/safety studies
 EPA TSCA Section 8(e) Risk Notification, 8EHQ-0892-8894
 On EPA IRIS database
 EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 2001

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