CHEMICAL IDENTIFICATION

RTECS Number	PA8050000
Chemical Name	Methane, dichloro-
CAS Registry Number	75-09-2
Beilstein Reference No.	1730800
Reference	4-01-00-00035
Last Updated	201903
Data Items Cited	245
Molecular Formula	C-H2-Cl2
Molecular Weight	84.93
Wiswesser Line Notation	G1G
Compound Descriptor	Agricultural Chemical Tumorigen Drug Mutagen Reproductive Effector Human Primary Irritant

Synonyms/Trade Names

* Aerothene MM
* Chlorure de methylene
* Dichloromethane
* Dichloromethane
* F 30 (chlorocarbon)
* Freon 30
* HCC 30
* Khladon 30
* Methane dichloride
* Methylene bichloride
* Methylene chloride
* Methylene chloride
* Methylene dichloride
* Metylenu chlorek
* NCI-C50102
* Narkotil
* R 30
* R30 (refrigerant)
* RCRA waste number U080
* Solaesthin
* Soleana VDA
* Solmethine

HEALTH HAZARD DATA

SKIN/EYE IRRITATION DATA

Type of Test	Route of Exposure or Administration	Species/Test System	Dose Data	Reaction Severity	Reference
Standard Draize test	Administration onto the skin	Rodent - rabbit	810 mg/24H	Severe	EJTXAZ European Journal of Toxicology and Environmental Hygiene. (Paris, France) V.7-9, 1974-76. For publisher information, see TOERD9. Volume(issue)/page/year: 9,171,1976
Standard Draize test	Administration onto the skin	Rodent - rabbit	100 mg/24H	Moderate	85JCAE "Prehled Prumyslove Toxikologie; Organicke Latky," Marhold, J., Prague, Czechoslovakia, Avicenum, 1986 Volume(issue)/page/year: -,88,1986
Standard Draize test	Administration into the eye	Rodent - rabbit	162 mg	Moderate	EJTXAZ European Journal of Toxicology and Environmental Hygiene. (Paris, France) V.7-9, 1974-76. For publisher information, see TOERD9. Volume(issue)/page/year: 9,171,1976
Standard Draize test	Administration into the eye	Rodent - rabbit	10 mg	Mild	TXCYAC Toxicology. (Elsevier Scientific Pub. Ireland, Ltd., POB 85, Limerick, Ireland) V.1- 1973- Volume(issue)/page/year: 6,173,1976
Standard Draize test	Administration into the eye	Rodent - rabbit	500 mg/24H	Mild	85JCAE "Prehled Prumyslove Toxikologie; Organicke Latky," Marhold, J., Prague, Czechoslovakia, Avicenum, 1986 Volume(issue)/page/year: -,88,1986

ACUTE TOXICITY DATA

Type of Test	Route of Exposure or Administration	Species/Test System	Dose Data	Toxic Effects	Reference
TDLo - Lowest published toxic dose	Oral	Human - man	1429 uL/kg	Kidney/Ureter/Bladder - changes in tubules (including acute renal failure, acute tubular necrosis) Blood - normocytic anemia Nutritional and Gross Metabolic - changes in iron	YAKUD5 Gekkan Yakuji. Pharmaceuticals Monthly. (Yakugyo Jihosha, Inaoka Bldg., 2-36 Jinbo-cho, Kanda, Chiyoda-ku, Tokyo 101, Japan) V.1- 1959- Volume(issue)/page/year: 36,575,1994
LDLo - Lowest published lethal dose	Oral	Human	357 mg/kg	Peripheral Nerve and Sensation - paresthesis Behavioral - somnolence (general	34ZIAG "Toxicology of Drugs and Chemicals," Deichmann, W.B., New York, Academic Press,

				depressed activity) Behavioral - convulsions or effect on seizure threshold	Inc., 1969 Volume(issue)/page/year: -,390,1969
TCLo - Lowest published toxic concentration	Inhalation	Human	500 ppm/1Y (intermittent)	Behavioral - altered sleep time (including change in righting reflex) Behavioral - somnolence (general depressed activity) Cardiac - change in rate	ABHYAE Abstracts on Hygiene. (Bureau of Hygiene and Tropical Diseases, Keppel St., London WC1E 7HT, UK) V.1- 1926- Volume(issue)/page/year: 43,1123,1968
TCLo - Lowest published toxic concentration	Inhalation	Human	500 ppm/8H	Behavioral - euphoria	SCIEAS Science. (American Assoc. for the Advancement of Science, 1333 H St., NW, Washington, DC 20005) V.1- 1895- Volume(issue)/page/year: 176,295,1972
LD50 - Lethal dose, 50 percent kill	Oral	Rodent - rat	1600 mg/kg	Behavioral - ataxia	FAONAU FAO Nutrition Meetings Report Series. (Rome, Italy) No.?-57, 1948-77. Discontinued. Volume(issue)/page/year: 48A,94,1970
LD50 - Lethal dose, 50 percent kill	Intraperitoneal	Rodent - rat	916 mg/kg	Details of toxic effects not reported other than lethal dose value	ENVRAL Environmental Research. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1967- Volume(issue)/page/year: 40,411,1986
LDLo - Lowest published lethal dose	Intratracheal	Rodent - rat	350 mg/kg	Lungs, Thorax, or Respiration - structural or functional change in trachea or bronchi Lungs, Thorax, or Respiration - acute pulmonary edema	NTIS** National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information. Volume(issue)/page/year: OTS0520615
LD50 - Lethal dose, 50 percent kill	Unreported	Rodent - rat	5350 mg/kg	Details of toxic effects not reported other than lethal dose value	GISAAA Gigiena i Sanitariya. For English translation, see HYSAAV. (V/O Mezhdunarodnaya Kniga, 113095 Moscow, USSR) V.1- 1936- Volume(issue)/page/year:

					53(6),78,1988
LD50 - Lethal dose, 50 percent kill	Oral	Rodent - mouse	873 mg/kg	Details of toxic effects not reported other than lethal dose value	EVHPAZ EHP, Environmental Health Perspectives. (U.S. Government Printing Office, Supt of Documents, Washington, DC 20402) No.1- 1972- Volume(issue)/page/year: 106(Suppl 2),497,1998
LC50 - Lethal concentration, 50 percent kill	Inhalation	Rodent - mouse	14400 ppm/7H	Details of toxic effects not reported other than lethal dose value	NIHBAZ National Institutes of Health, Bulletin. (Bethesda, MD) Volume(issue)/page/year: 191,1,1949
LD50 - Lethal dose, 50 percent kill	Intraperitoneal	Rodent - mouse	437 mg/kg	Details of toxic effects not reported other than lethal dose value	AGGHAR Archiv fuer Gewerbepathologie und Gewerbehygiene. (Berlin, Ger.) V.1-18, 1930-61. For publisher information, see IAEHDW. Volume(issue)/page/year: 18,109,1960
LD50 - Lethal dose, 50 percent kill	Subcutaneous	Rodent - mouse	6460 mg/kg	Details of toxic effects not reported other than lethal dose value	TXAPA9 Toxicology and Applied Pharmacology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1959- Volume(issue)/page/year: 4,354,1962
LD50 - Lethal dose, 50 percent kill	Unreported	Rodent - mouse	4770 mg/kg	Gastrointestinal - ulceration or bleeding from stomach Gastrointestinal - ulceration or bleeding from small intestine	ESKGA2 Eisei Kagaku. Hygienic Chemistry. (Nippon Yakugakkai, 2-12-15 Shibuya, Shibuya-ku, Tokyo 150, Japan) V.1- 1953- Volume(issue)/page/year: 28,P31,1982
LDLo - Lowest published lethal dose	Oral	Mammal - dog	3 gm/kg	Details of toxic effects not reported other than lethal dose value	QJPPAL Quarterly Journal of Pharmacy & Pharmacology. (London, UK) V.2-21, 1929-48. For publisher information, see JPPMAB. Volume(issue)/page/year: 7,205,1934
LCLo -	Inhalation	Mammal -	14108	Sense Organs and	NIHBAZ National

Lowest published lethal concentration		dog	ppm/7H	Special Senses (Eye) - miosis (pupillary constriction) Vascular - BP lowering not characterized in autonomic section Lungs, Thorax, or Respiration - dyspnea	Institutes of Health, Bulletin. (Bethesda, MD) Volume(issue)/page/year: 191,1,1949
LD50 - Lethal dose, 50 percent kill	Intraperitoneal	Mammal - dog	1274 mg/kg	Details of toxic effects not reported other than lethal dose value	TXAPA9 Toxicology and Applied Pharmacology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1959- Volume(issue)/page/year: 10,119,1967
LDLo - Lowest published lethal dose	Intravenous	Mammal - dog	200 mg/kg	Details of toxic effects not reported other than lethal dose value	QJPPAL Quarterly Journal of Pharmacy & Pharmacology. (London, UK) V.2-21, 1929-48. For publisher information, see JPPMAB. Volume(issue)/page/year: 7,205,1934
LCLo - Lowest published lethal concentration	Inhalation	Mammal - cat	43400 mg/m3/4.5H	Behavioral - general anesthetic Behavioral - ataxia Nutritional and Gross Metabolic - body temperature decrease	AHBAAM Archiv fuer Hygiene und Bakteriologie. (Munich, Fed. Rep. Ger.) V.101-154, 1929-71. For publisher information, see ZHPMAT. Volume(issue)/page/year: 116,131,1936
LDLo - Lowest published lethal dose	Oral	Rodent - rabbit	1900 mg/kg	Details of toxic effects not reported other than lethal dose value	HBTXAC "Handbook of Toxicology," 4 vols., Philadelphia, W.B. Saunders Co., 1956-59 Volume(issue)/page/year: 1,94,1955
LCLo - Lowest published lethal concentration	Inhalation	Rodent - rabbit	10000 ppm/7H	Details of toxic effects not reported other than lethal dose value	JIHTAB Journal of Industrial Hygiene and Toxicology. (Cambridge, MA) V.18-31, 1936-49. For publisher information, see AEHLAU. Volume(issue)/page/year: 26,8,1944
LDLo -	Subcutaneous	Rodent -	2700 mg/kg	Details of toxic effects	QJPPAL Quarterly

Lowest published lethal dose		rabbit		not reported other than lethal dose value	Journal of Pharmacy & Pharmacology. (London, UK) V.2-21, 1929-48. For publisher information, see JPPMAB. Volume(issue)/page/year: 7,205,1934
LD50 - Lethal dose, 50 percent kill	Unreported	Rodent - rabbit	1225 mg/kg	Details of toxic effects not reported other than lethal dose value	GISAAA Gigiena i Sanitariya. For English translation, see HYSAAV. (V/O Mezhdunarodnaya Kniga, 113095 Moscow, USSR) V.1- 1936- Volume(issue)/page/year: 53(6),78,1988
LCLo - Lowest published lethal concentration	Inhalation	Rodent - guinea pig	5000 ppm/2H	Details of toxic effects not reported other than lethal dose value	FLCRAP Fluorine Chemistry Reviews. (Marcel Dekker, 270 Madison Ave., New York, NY 10016) V.1- 1967- Volume(issue)/page/year: 1,197,1967
TCLo - Lowest published toxic concentration	Inhalation	Rodent - mouse	32500 mg/m3/2H	Behavioral - general anesthetic	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,307,1990
LC50 - Lethal concentration, 50 percent kill	Inhalation	Rodent - mouse	49100 mg/m3/6H	Details of toxic effects not reported other than lethal dose value	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
LC16 - Lethal concentration	Inhalation	Rodent - mouse	53000 mg/m3/6H	Details of toxic effects not reported other than lethal dose value	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie

				uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
LC50 - Lethal concentration, 50 percent kill	Inhalation	Rodent - mouse	54000 mg/m3/2H	Details of toxic effects not reported other than lethal dose value	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
LC84 - Lethal concentration	Inhalation	Rodent - mouse	75000 mg/m3/2H	Details of toxic effects not reported other than lethal dose value	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
LC50 - Lethal concentration, 50 percent kill	Inhalation	Rodent - mouse	56220 mg/m3/7H	Details of toxic effects not reported other than lethal dose value	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
LC50 - Lethal concentration, 50 percent kill	Inhalation	Rodent - rat	76000 mg/m3/4H	Details of toxic effects not reported other than lethal dose value	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year:

					-,320,1990
LC50 - Lethal concentration, 50 percent kill	Inhalation	Rodent - rat	52000 mg/m3/6H	Details of toxic effects not reported other than lethal dose value	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
LC50 - Lethal concentration, 50 percent kill	Inhalation	Rodent - guinea pig	40200 mg/m3/6H	Details of toxic effects not reported other than lethal dose value	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
LD16 - Lethal dose	Oral	Rodent - mouse	620 mg/kg	Details of toxic effects not reported other than lethal dose value	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
LD84 - Lethal dose	Oral	Rodent - mouse	1650 mg/kg	Details of toxic effects not reported other than lethal dose value	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
LD50 - Lethal dose, 50 percent kill	Oral	Rodent - rat	985 mg/kg	Details of toxic effects not reported other than lethal dose value	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated

					hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
LD16 - Lethal dose	Oral	Rodent - rat	800 mg/kg	Details of toxic effects not reported other than lethal dose value	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
LD84 - Lethal dose	Oral	Rodent - rat	2200 mg/kg	Details of toxic effects not reported other than lethal dose value	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
LD50 - Lethal dose, 50 percent kill	Oral	Rodent - rabbit	2000 mg/kg	Details of toxic effects not reported other than lethal dose value	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
LD50 - Lethal dose, 50 percent kill	Oral	Mammal - dog	3000 mg/kg	Details of toxic effects not reported other than lethal dose value	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
TCLo - Lowest	Inhalation	Rodent - mouse	40000 mg/m3	Behavioral - general anesthetic	VCVGH* "Vrednie chemichescie veshestva,

published toxic concentration					galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	50000 mg/m3	Behavioral - general anesthetic	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
TCLo - Lowest published toxic concentration	Inhalation	Rodent - mouse	17000 mg/m3/2H	Behavioral - somnolence (general depressed activity)	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	1000 mg/m3/30M	Endocrine - adrenal cortex hyperplasia Behavioral - alteration of classical conditioning	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
TCLo - Lowest published toxic concentration	Inhalation	Rodent - guinea pig	21000 mg/m3/45M	Behavioral - general anesthetic	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990.

					Volume(issue)/page/year: -,320,1990
TDLo - Lowest published toxic dose	Intravenous	Rodent - mouse	133 mg/kg	Kidney/Ureter/Bladder - other changes	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
TDLo - Lowest published toxic dose	Intravenous	Rodent - rat	1000 mg/kg	Liver - other changes Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - cytochrome oxidases (including oxidative phosphorylation)	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
TDLo - Lowest published toxic dose	Intraperitoneal	Rodent - rat	510 mg/kg	Blood - methemoglobinemia-carboxyhemoglobin	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,320,1990
TDLo - Lowest published toxic dose	Oral	Rodent - rat	237.8 mg/kg	Kidney/Ureter/Bladder - changes in tubules (including acute renal failure, acute tubular necrosis)	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,321,1990
TCLo - Lowest published toxic	Inhalation	Human	69600 mg/m3/30M	Behavioral - general anesthetic	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov".

concentration					(Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,321,1990
TCLo - Lowest published toxic concentration	Inhalation	Human	25000 mg/m3/8M	Peripheral Nerve and Sensation - paresthesis Sense Organs and Special Senses (Eye) - conjunctive irritation	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,321,1990
TCLo - Lowest published toxic concentration	Inhalation	Human	8000 mg/m3/30M	Gastrointestinal - nausea or vomiting	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,321,1990
TDLo - Lowest published toxic dose	Administration into the eye	Rodent - rabbit	0.25 mL/kg	Sense Organs and Special Senses (Eye) - increased intraocular pressure Sense Organs and Special Senses (Eye) - conjunctive irritation Sense Organs and Special Senses (Eye) - corneal damage	VCVGH* "Vrednie chemichescie veshestva, galogenproisvodnie uglevodorodov". (Hazardous substances: Galogenated hydrocarbons) Bandman A.L. et al., Chimia, 1990. Volume(issue)/page/year: -,323,1990
TDLo - Lowest published toxic dose	Intraperitoneal	Rodent - mouse	509.58 mg/kg	Blood - methemoglobinemia-carboxyhemoglobin	JAPTO* Journal of Applied Toxicology (John Wiley & Sons, Ltd., Oldlands Way Bognor Regis West Sussex, PO22 9SA England) V.1- 1981- Volume(issue)/page/year: 27,25,2007
TCLo -	Inhalation	Rodent -	35	Brain and Coverings -	TPKVAL Toksikologiya

Lowest published toxic concentration		mouse	gm/m3/2H	changes in circulation (hemorrhage, thrombosis, etc.) Brain and Coverings - other degenerative changes Behavioral - general anesthetic	Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1-1961- Volume(issue)/page/year: 1,96,1961
TCLo - Lowest published toxic concentration	Inhalation	Rodent - mouse	15 gm/m3/2H	Behavioral - general anesthetic Behavioral - convulsions or effect on seizure threshold Behavioral - ataxia	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1-1961- Volume(issue)/page/year: 1,96,1961
LC50 - Lethal concentration, 50 percent kill	Inhalation	Rodent - mouse	25 gm/m3/2H	Behavioral - alteration of classical conditioning Liver - fatty liver degeneration Kidney/Ureter/Bladder - changes in tubules (including acute renal failure, acute tubular necrosis)	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1-1961- Volume(issue)/page/year: 1,96,1961
TCLo - Lowest published toxic concentration	Inhalation	Rodent - mouse	10 gm/m3/2H	Details of toxic effects not reported other than lethal dose value	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina,

					Moscow, USSR) No.1- 1961- Volume(issue)/page/year: 1,96,1961
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	1 gm/m3/1H	Details of toxic effects not reported other than lethal dose value	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1- 1961- Volume(issue)/page/year: 1,96,1961
IC50 - Inhibitor Concentration 50	In vitro	Chicken - neurons	125548 umol/L/21H	In Vitro Toxicity Studies - cell viability (mitochondrial reductase assays): MTT, XTT, MTS, WSTs assays etc.	TIVIEQ Toxicology In Vitro. (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.1- 1987- Volume(issue)/page/year: 7,653,1993
IC10 - Inhibitor Concentration 10	In vitro	Chicken - neurons	32249 umol/L/21H	In Vitro Toxicity Studies - cell viability (mitochondrial reductase assays): MTT, XTT, MTS, WSTs assays etc.	TIVIEQ Toxicology In Vitro. (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.1- 1987- Volume(issue)/page/year: 7,653,1993
IC50 - Inhibitor Concentration 50	In vitro	Chicken - neurons	87758 umol/L/20H	In Vitro Toxicity Studies - cell viability (lysosomal damage): neutral red assay etc.	TIVIEQ Toxicology In Vitro. (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.1- 1987- Volume(issue)/page/year: 7,653,1993
IC10 - Inhibitor Concentration 10	In vitro	Chicken - neurons	25310 umol/L/20H	In Vitro Toxicity Studies - cell viability (lysosomal damage): neutral red assay etc.	TIVIEQ Toxicology In Vitro. (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.1- 1987- Volume(issue)/page/year: 7,653,1993
LCLo - Lowest published lethal	Inhalation	Rodent - rat	52000 mg/m3	Blood - other changes Biochemical - Enzyme inhibition, induction, or change in blood or	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh

concentration				tissue levels - other Enzymes	Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1-1961- Volume(issue)/page/year: 15,64,1979
LCLo - Lowest published lethal concentration	Inhalation	Rodent - mouse	30 gm/m3/2H	Skin and Appendages - dermatitis, other (after systemic exposure)	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1-1961- Volume(issue)/page/year: 1,96,1961
LCLo - Lowest published lethal concentration	Inhalation	Rodent - mouse	50 gm/m3/2H	Behavioral - ataxia Lungs, Thorax, or Respiration - respiratory obstruction Liver - fatty liver degeneration	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1-1961- Volume(issue)/page/year: 1,96,1961
IC20	In vitro	Human - leukemia cells	16.54 mmol/L/3H	In Vitro Toxicity Studies - cell viability (mitochondrial reductase assays): MTT, XTT, MTS, WSTs assays etc. In Vitro Toxicity Studies - other assays	TXCYAC Toxicology. (Elsevier Scientific Pub. Ireland, Ltd., POB 85, Limerick, Ireland) V.1-1973- Volume(issue)/page/year: 271,122,2010
IC50 - Inhibitor Concentration 50	In vitro	Human - leukemia cells	53.86 mmol/L/3H	In Vitro Toxicity Studies - cell viability (mitochondrial reductase assays): MTT, XTT, MTS,	TXCYAC Toxicology. (Elsevier Scientific Pub. Ireland, Ltd., POB 85, Limerick, Ireland) V.1-1973-

				WSTs assays etc. In Vitro Toxicity Studies - other assays	Volume(issue)/page/year: 271,122,2010
TDLo - Lowest published toxic dose	Oral	Rodent - rat	160 mg/kg	Blood - other changes	TXAPA9 Toxicology and Applied Pharmacology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1959- Volume(issue)/page/year: 250,162,2011

OTHER MULTIPLE DOSE TOXICITY DATA

Type of Test	Route of Exposure or Administration	Species/Test System	Dose Data	Toxic Effects	Reference
TDLo - Lowest published toxic dose	Oral	Rodent - rat	14940 mg/kg/90D (continuous)	Liver - hepatitis (hepatocellular necrosis), zonal Liver - fatty liver degeneration	FCTOD7 Food and Chemical Toxicology. (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.20- 1982- Volume(issue)/page/year: 24,943,1986
TDLo - Lowest published toxic dose	Oral	Rodent - rat	91 gm/kg/2Y (continuous)	Behavioral - fluid intake Liver - fatty liver degeneration Nutritional and Gross Metabolic - weight loss or decreased weight gain	FCTOD7 Food and Chemical Toxicology. (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.20- 1982- Volume(issue)/page/year: 24,951,1986
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	3700 ppm/5H/4W (intermittent)	Lungs, Thorax, or Respiration - other changes Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - phosphatases Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - dehydrogenases	TOLED5 Toxicology Letters. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1977- Volume(issue)/page/year: 7,41,1980
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	5000 ppm/24H/14W (continuous)	Liver - other changes Kidney/Ureter/Bladder - changes in tubules (including acute renal failure, acute tubular necrosis)	NTIS** National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical

				Kidney/Ureter/Bladder - changes in bladder weight	Information. Volume(issue)/page/year: AD746-295
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	8400 ppm/6H/13W (intermittent)	Liver - changes in liver weight Related to Chronic Data - death	NTPTR* National Toxicology Program Technical Report Series. (Research Triangle Park, NC 27709) No.206- Volume(issue)/page/year: NTP-TR-306,1986
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	500 ppm/6H/2W (intermittent)	Kidney/Ureter/Bladder - other changes Blood - methemoglobinemia-carboxyhemoglobin Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - other Enzymes	RCOCB8 Research Communications in Chemical Pathology and Pharmacology. (PJD Pub. Ltd., P.O. Box 966, Westbury, NY 11590) V.1- 1970- Volume(issue)/page/year: 32,535,1981
TDLo - Lowest published toxic dose	Administration onto the skin	Rodent - rat	39270 mg/kg/17W (intermittent)	Liver - other changes Liver - changes in liver weight	GTPZAB Gigiena Truda i Professional'nye Zabolevaniya. Labor Hygiene and Occupational Diseases. (V/O Mezhdunarodnaya Kniga, 113095 Moscow, USSR) V.1-36, 1957-1992. For publisher information, see MTPEEI Volume(issue)/page/year: 26(5),41,1982
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	1000 ppm/2H/3W (intermittent)	Behavioral - food intake (animal) Liver - other changes Blood - other changes	HOCHE8 Hochudoku. (Nippon Hochudoku Gakkai, c/o Kyushu Daigaku Igakubu Hoigaku Kyoshitsu, 3-1-1 Maidashi, Higashi-ku, Fukuoka, 812, Japan) V.8- 1990- Volume(issue)/page/year: 8,64,1990
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	1000 ppm/6H/3D (intermittent)	Brain and Coverings - other degenerative changes Biochemical - Neurotransmitters or modulators (putative) - dopamine at other sites	TXCYAC Toxicology. (Elsevier Scientific Pub. Ireland, Ltd., POB 85, Limerick, Ireland) V.1-1973- Volume(issue)/page/year: 29,293,1984
TDLo -	Oral	Rodent -	1862	Kidney/Ureter/Bladder	DCTODJ Drug and

Lowest published toxic dose		mouse	mg/kg/2W (intermittent)	- changes in tubules (including acute renal failure, acute tubular necrosis)	Chemical Toxicology. (Marcel Dekker, 270 Madison Ave., New York, NY 10016) V.1- 1977/78- Volume(issue)/page/year: 6,563,1983
TDLo - Lowest published toxic dose	Oral	Rodent - mouse	52740 mg/kg/90D (continuous)	Liver - hepatitis (hepatocellular necrosis), zonal Liver - fatty liver degeneration	FCTOD7 Food and Chemical Toxicology. (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.20- 1982- Volume(issue)/page/year: 24,943,1986
TCLo - Lowest published toxic concentration	Inhalation	Rodent - mouse	13000 ppm/6H/19D (intermittent)	Related to Chronic Data - death	NTPTR* National Toxicology Program Technical Report Series. (Research Triangle Park, NC 27709) No.206- Volume(issue)/page/year: NTP-TR-306,1986
TCLo - Lowest published toxic concentration	Inhalation	Rodent - mouse	150 ppm/24H/30D (continuous)	Liver - changes in liver weight Endocrine - changes in spleen weight Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - other esterases	APTOA6 Acta Pharmacologica et Toxicologica. (Copenhagen, Denmark) V.1-59, 1945-86. For publisher information, see PHTOEH Volume(issue)/page/year: 59,73,1986
TCLo - Lowest published toxic concentration	Inhalation	Rodent - mouse	5000 ppm/24H/7D (continuous)	Liver - changes in liver weight Nutritional and Gross Metabolic - weight loss or decreased weight gain	TXAPA9 Toxicology and Applied Pharmacology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1959- Volume(issue)/page/year: 23,660,1972
TCLo - Lowest published toxic concentration	Inhalation	Rodent - mouse	300 ppm/24H/90D (continuous)	Liver - changes in liver weight Endocrine - changes in spleen weight Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - other esterases	APTOA6 Acta Pharmacologica et Toxicologica. (Copenhagen, Denmark) V.1-59, 1945-86. For publisher information, see PHTOEH Volume(issue)/page/year: 59,73,1986
TCLo - Lowest	Inhalation	Mammal - dog	1000 ppm/24H/7W	Behavioral - food intake (animal)	NTIS** National Technical Information

published toxic concentration			(continuous)	Musculoskeletal - other changes Related to Chronic Data - death	Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information. Volume(issue)/page/year: AD746-295
TCLo - Lowest published toxic concentration	Inhalation	Mammal - dog	5000 ppm/6H/12W (intermittent)	Behavioral - hallucinations, distorted perceptions Behavioral - ataxia Behavioral - antipsychotic	NTIS** National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information. Volume(issue)/page/year: OTS0555748
TCLo - Lowest published toxic concentration	Inhalation	Primate - monkey	5000 ppm/24H/32D (continuous)	Behavioral - food intake (animal) Nutritional and Gross Metabolic - weight loss or decreased weight gain Related to Chronic Data - death	NTIS** National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information. Volume(issue)/page/year: AD746-295
TCLo - Lowest published toxic concentration	Inhalation	Rodent - guinea pig	552 ppm/6H/5D (intermittent)	Liver - other changes Biochemical - Metabolism (Intermediary) - lipids including transport	AIHAAP American Industrial Hygiene Association Journal. (AIHA, 475 Wolf Ledges Pkwy., Akron, OH 44311) V.19- 1958- Volume(issue)/page/year: 37,345,1976
TCLo - Lowest published toxic concentration	Inhalation	Rodent - mouse	1.04 gm/m3/5D (intermittent)	Lungs, Thorax, or Respiration - other changes Liver - other changes Kidney/Ureter/Bladder - other changes	TOXID9 Toxicologist. (Soc. of Toxicology, Inc., 475 Wolf Ledge Parkway, Akron, OH 44311) V.1- 1981- Volume(issue)/page/year: 66,62,2002
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	2800 mg/m3/4D (intermittent)	Peripheral Nerve and Sensation - recording from peripheral motor nerve Liver - liver function tests impaired Kidney/Ureter/Bladder - other changes	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1-

					1961- Volume(issue)/page/year: 15,76,1979
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	2800 mg/m3/8D (intermittent)	Kidney/Ureter/Bladder - other changes in urine composition	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1-1961- Volume(issue)/page/year: 15,76,1979
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	2800 mg/m3/27D (intermittent)	Nutritional and Gross Metabolic - weight loss or decreased weight gain	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1-1961- Volume(issue)/page/year: 15,76,1979
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	880 mg/m3/4D (intermittent)	Peripheral Nerve and Sensation - recording from peripheral motor nerve	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1-1961- Volume(issue)/page/year: 15,76,1979
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	880 mg/m3/15D (intermittent)	Kidney/Ureter/Bladder - other changes in urine composition	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology

					of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1-1961- Volume(issue)/page/year: 15,76,1979
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	0.4 gm/m3/91D (intermittent)	Brain and Coverings - other degenerative changes	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1-1961- Volume(issue)/page/year: 1,72,1961
TCLo - Lowest published toxic concentration	Inhalation	Mammal - dog	34 gm/m3/7W (intermittent)	Behavioral - general anesthetic Liver - fatty liver degeneration	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1-1961- Volume(issue)/page/year: 1,96,1961
TCLo - Lowest published toxic concentration	Inhalation	Rodent - guinea pig	34 gm/m3/7W (intermittent)	Behavioral - general anesthetic Liver - fatty liver degeneration	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1-1961- Volume(issue)/page/year: 1,96,1961

TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	0.045 gm/m3/91D (intermittent)	Behavioral - alteration of classical conditioning	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1-1961- Volume(issue)/page/year: 1,96,1961
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	0.25 gm/m3/24D (intermittent)	Behavioral - alteration of classical conditioning	TPKVAL Toksikologiya Novykh Promyshlennykh Khimicheskikh Veshchestv. Toxicology of New Industrial Chemical Substances. For English translation, see TNICS*. (Izdatel'stvo Meditsina, Moscow, USSR) No.1-1961- Volume(issue)/page/year: 1,96,1961
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	5000 ppm/28D (intermittent)	Liver - changes in liver weight Endocrine - differential effect of sex or castration on observed toxicity Endocrine - changes in spleen weight	JTEHF8 Journal of Toxicology and Environmental Health, Part A. (Taylor & Francis, 47 Runway Rd., Suite G, Levittown, PA 19057) V.53- 1998- Volume(issue)/page/year: 66,1207,2003
TCLo - Lowest published toxic concentration	Inhalation	Rodent - mouse	49567.7 mg/kg/13W (intermittent)	Liver - other changes	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 746,135,2012

TUMORIGENIC DATA

Type of Test	Route of Exposure or Administration	Species/Test System	Dose Data	Toxic Effects	Reference

TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	3500 ppm/6H/2Y (intermittent)	Tumorigenic - carcinogenic by RTECS criteria Endocrine - tumors	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 Volume(issue)/page/year: 4,30,1984
TCLo - Lowest published toxic concentration	Inhalation	Rodent - mouse	2000 ppm/5H/2Y (continuous)	Tumorigenic - carcinogenic by RTECS criteria Lungs, Thorax, or Respiration - tumors	NTPTR* National Toxicology Program Technical Report Series. (Research Triangle Park, NC 27709) No.206- Volume(issue)/page/year: NTP-TR-306,1986
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	122400 mg/kg/103W (intermittent)	Tumorigenic - neoplastic by RTECS criteria Skin and Appendages - tumors	NTIS** National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information. Volume(issue)/page/year: PB86-187903/AS
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	102000 mg/kg/102W (intermittent)	Tumorigenic - neoplastic by RTECS criteria Skin and Appendages - tumors Blood - leukemia	NTIS** National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information. Volume(issue)/page/year: PB86-187903/AS
TCLo - Lowest published toxic concentration	Inhalation	Rodent - mouse	122400 mg/kg/102W (intermittent)	Tumorigenic - carcinogenic by RTECS criteria Lungs, Thorax, or Respiration - tumors Liver - tumors	NTIS** National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information. Volume(issue)/page/year: PB86-187903/AS
TCLo - Lowest published toxic concentration	Inhalation	Rodent - mouse	30239.3 mg/kg/13W (intermittent)	Tumorigenic - equivocal tumorigenic agent by RTECS criteria Lungs, Thorax, or Respiration - tumors	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 746,135,2012
TCLo - Lowest	Inhalation	Rodent - mouse	92337.7 mg/kg/13W	Tumorigenic - equivocal	MUREAV Mutation Research. (Elsevier Science Pub. B.V.,

published toxic concentration			(intermittent)	tumorigenic agent by RTECS criteria Lungs, Thorax, or Respiration - tumors	POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 746,135,2012

REPRODUCTIVE DATA

Type of Test	Route of Exposure or Administration	Species/Test System	Dose Data	Sex/Duration	Toxic Effects	Reference
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	4500 ppm/24H	female 1-17 day(s) after conception	Reproductive - Effects on Newborn - behavioral	TXAPA9 Toxicology and Applied Pharmacology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1959- Volume(issue)/page/year: 52,29,1980
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	1250 ppm/7H	female 6-15 day(s) after conception	Reproductive - Specific Developmental Abnormalities - musculoskeletal system Reproductive - Specific Developmental Abnormalities - urogenital system	TXAPA9 Toxicology and Applied Pharmacology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1959- Volume(issue)/page/year: 32,84,1975
TCLo - Lowest published toxic concentration	Inhalation	Rodent - mouse	1250 ppm/7H	female 6-15 day(s) after conception	Reproductive - Specific Developmental Abnormalities - musculoskeletal system	TXAPA9 Toxicology and Applied Pharmacology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1959- Volume(issue)/page/year: 32,84,1975

MUTATION DATA

Type of Test	Route of Exposure or Administration	Species/Test System	Dose Data	Reference
Mutation in microorganisms		Bacteria - Salmonella typhimurium	5700 ppm	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 56,245,1978
Mutation in		Bacteria -	6300 ppm	EMMUEG Environmental and Molecular

microorganisms		Escherichia coli		Mutagenesis. (Alan R. Liss, Inc., 41 E. 11th St., New York, NY 10003) V.10-1987- Volume(issue)/page/year: 20,211,1992
Phage inhibition capacity		Bacteria - Escherichia coli	8250 ug/well	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 260,349,1991
Sex chromosome loss and nondisjunction	Oral	Insect - Drosophila melanogaster	125 mmol/L	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 90,91,1981
DNA inhibition		Human Fibroblast	5000 ppm/1H (continuous)	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 81,203,1981
Morphological transformation		Rodent - rat Embryo	160 umol/L	ITCSAF In Vitro. (Rockville, MD) V.1-20, 1965-85. For publisher information, see ICDBEO. Volume(issue)/page/year: 14,290,1978
DNA damage	Oral	Rodent - rat	1275 mg/kg	TCMUD8 Teratogenesis, Carcinogenesis, and Mutagenesis. (Alan R. Liss, Inc., 41 E. 11th St., New York, NY 10003) V.1-1980- Volume(issue)/page/year: 9,61,1989
DNA damage		Rodent - rat Liver	30 umol/L	CRNGDP Carcinogenesis (London). (Oxford Univ. Press, Pinkhill House, Southfield Road, Eynsham, Oxford OX8 1JJ, UK) V.1- 1980- Volume(issue)/page/year: 15,991,1994
Micronucleus test	Inhalation	Rodent - mouse	27760 mg/m3/6H/2W (intermittent)	EMMUEG Environmental and Molecular Mutagenesis. (Alan R. Liss, Inc., 41 E. 11th St., New York, NY 10003) V.10-1987- Volume(issue)/page/year: 15,221,1990
DNA damage		Rodent - mouse Liver	400 umol/L	CRNGDP Carcinogenesis (London). (Oxford Univ. Press, Pinkhill House, Southfield Road, Eynsham, Oxford OX8 1JJ, UK) V.1- 1980- Volume(issue)/page/year: 15,991,1994
DNA damage	Inhalation	Rodent - mouse	4000 ppm/6H (continuous)	CRNGDP Carcinogenesis (London). (Oxford Univ. Press, Pinkhill House, Southfield Road, Eynsham, Oxford OX8 1JJ, UK) V.1- 1980- Volume(issue)/page/year: 15,991,1994
DNA damage	Oral	Rodent - mouse	1720 mg/kg	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 419,13,1998
Cytogenetic	Inhalation	Rodent -	27760	EMMUEG Environmental and Molecular

analysis		mouse	mg/m3/6H/2W (intermittent)	Mutagenesis. (Alan R. Liss, Inc., 41 E. 11th St., New York, NY 10003) V.10-1987- Volume(issue)/page/year: 15,221,1990
Sister chromatid exchange	Inhalation	Rodent - mouse	13880 mg/m3/6H/2W (intermittent)	EMMUEG Environmental and Molecular Mutagenesis. (Alan R. Liss, Inc., 41 E. 11th St., New York, NY 10003) V.10-1987- Volume(issue)/page/year: 15,221,1990
Morphological transformation		Rodent - hamster Embryo	1300 uL/plate	EVSRBT Environmental Science Research. (Plenum Pub. Corp., 233 Spring St., New York, NY 10013) V.1- 1972- Volume(issue)/page/year: 25,75,1982
DNA damage		Rodent - hamster Ovary	3000 ppm	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 367,143,1996
DNA inhibition		Rodent - hamster Lung	5000 ppm/1H (continuous)	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 81,203,1981
Mutation test systems - not otherwise specified		Rodent - hamster Ovary	6628 mg/L	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 116,361,1983
Cytogenetic analysis		Rodent - hamster Lung	1 umol/L	TECSDY Toxicological and Environmental Chemistry. (Gordon & Breach Science Pub. Inc., 1 Park Ave., New York, NY 10016) V.3(3/4)- 1981- Volume(issue)/page/year: 13,205,1987
Cytogenetic analysis		Rodent - hamster Ovary	6628 mg/L	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 116,361,1983
Sister chromatid exchange		Rodent - hamster Lung	5000 ppm/1H (continuous)	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 81,203,1981
Mutation in mammalian somatic cells		Rodent - hamster Ovary	3000 ppm	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 367,143,1996
Morphological transformation		Rodent - mouse Fibroblast	0.1 mg/L/21D	EMMUEG Environmental and Molecular Mutagenesis. (Alan R. Liss, Inc., 41 E. 11th St., New York, NY 10003) V.10-1987- Volume(issue)/page/year: 35,300,2000
DNA damage		Human Lung	1000	MUREAV Mutation Research. (Elsevier

		umol/L/3H	Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 538,41,2003
DNA damage	Rodent - hamster Fibroblast	5 mmol/L/2H	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 577S,1,2005
Sister chromatid exchange	Human	500 ppm/72H	EMMUEG Environmental and Molecular Mutagenesis. (Alan R. Liss, Inc., 41 E. 11th St., New York, NY 10003) V.10- 1987- Volume(issue)/page/year: 48,625,2007
Sister chromatid exchange	Human Cells - not otherwise specified	30 ppm/72H	TOLED5 Toxicology Letters. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1977- Volume(issue)/page/year: 199,218,2010
Mutation in microorganisms	Bacteria - Salmonella typhimurium	140 gm/L/48H	MUTAEX Mutagenesis. (Oxford Univ. Press, Pinkhill House, Southfield Road, Eynsham, Oxford OX8 1JJ, UK) V.1- 1986- Volume(issue)/page/year: 32,455,2017

REVIEWS

ACGIH TLV-TWA 50 ppm	DTLVS* The Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs) booklet issues by American Conference of Governmental Industrial Hygienists (ACGIH), Cincinnati, OH, 1996 Volume(issue)/page/year: TLV/BEI,2013
ACGIH TLV-Confirmed animal carcinogen	DTLVS* The Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs) booklet issues by American Conference of Governmental Industrial Hygienists (ACGIH), Cincinnati, OH, 1996 Volume(issue)/page/year: TLV/BEI,2013
IARC Cancer Review:Animal Sufficient Evidence	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- Volume(issue)/page/year: 41,43,1986
IARC Cancer Review:Animal Sufficient Evidence	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- Volume(issue)/page/year: 71,251,1999
IARC Cancer Review:Human Inadequate Evidence	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- Volume(issue)/page/year: 41,43,1986
IARC Cancer Review:Human Inadequate Evidence	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- Volume(issue)/page/year: 71,251,1999
IARC Cancer Review:Group 2B	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- Volume(issue)/page/year: 71,251,1999

TOXICOLOGY REVIEW	FAZMAE Fortschritte der Arzneimittelforschung. Progress in Drug Research. (Birkhauser Boston, Inc., c/o Springer-Verlag New York, 44 Hartz Way, Secaucus, NJ 07094) V.1- 1959- Volume(issue)/page/year: 18,365,1974
TOXICOLOGY REVIEW	TOLED5 Toxicology Letters. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1977- Volume(issue)/page/year: 127,135,2002
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TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 543,201,2003
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 567,227,2004
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 567,109,2004
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 567,151,2004
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 567,347,2004
TOXICOLOGY REVIEW	EMMUEG Environmental and Molecular Mutagenesis. (Alan R. Liss, Inc., 41 E. 11th St., New York, NY 10003) V.10- 1987- Volume(issue)/page/year: 39,69,2002
TOXICOLOGY REVIEW	DIMON* Disease-a Month (Chicago : Year Book Publishers) V. 24- 1978- Volume(issue)/page/year: 46,551,2000
TOXICOLOGY REVIEW	DIMON* Disease-a Month (Chicago : Year Book Publishers) V. 24- 1978- Volume(issue)/page/year: 39,678,1993
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 628,67,2007
TOXICOLOGY REVIEW	ENTOX* Encyclopedia of Toxicology: Reference Book, Elsevier, 2005 Volume(issue)/page/year: -,92,2005
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 584,1,2005
TOXICOLOGY REVIEW	BCLPT* Basic & clinical pharmacology & toxicology (Copenhagen, Denmark : Nordic Pharmacological Society Oxford, UK : Distributed by Blackwell Munksgaard) V.94- 2004- Volume(issue)/page/year: 96,131,2005
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 636,242,2007
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 654,114,2008
TOXICOLOGY REVIEW	HUTOX* Human Toxicology, Edited by: Jacques Descotes, Elsevier B.V., 1996 Volume(issue)/page/year: -,661,1996
TOXICOLOGY REVIEW	HUTOX* Human Toxicology, Edited by: Jacques Descotes, Elsevier B.V., 1996 Volume(issue)/page/year: -,683,1996
TOXICOLOGY REVIEW	HUTOX* Human Toxicology, Edited by: Jacques Descotes, Elsevier B.V., 1996 Volume(issue)/page/year: -,577,1996
TOXICOLOGY REVIEW	HTOPA* Handbook of Toxicologic Pathology (Second Edition) Edited by: Wanda M. Haschek, Colin G. Rousseaux and Matthew A. Wallig, Elsevier Inc, 2002 Volume(issue)/page/year: 1,501,2002

TOXICOLOGY REVIEW	TOLED5 Toxicology Letters. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1977- Volume(issue)/page/year: 180,100,2008
TOXICOLOGY REVIEW	AIRMJ* Air Medical Journal (St Louis, MO : Mosby) V.1- 1993- Volume(issue)/page/year: 20,8,2001
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 682,39,2009
TOXICOLOGY REVIEW	NCLNA* Neurologic clinics (Elsevier) V.20- 2002 Volume(issue)/page/year: 16,503,1998
TOXICOLOGY REVIEW	NTAPM* Neurotoxicology: Approaches And Methods. Louis W. Chang, William Slikker Jr. ed, Academic Press, 1995 Volume(issue)/page/year: -,629,1995
TOXICOLOGY REVIEW	NTAPM* Neurotoxicology: Approaches And Methods. Louis W. Chang, William Slikker Jr. ed, Academic Press, 1995 Volume(issue)/page/year: -,711,1995
TOXICOLOGY REVIEW	NTAPM* Neurotoxicology: Approaches And Methods. Louis W. Chang, William Slikker Jr. ed, Academic Press, 1995 Volume(issue)/page/year: -,727,1995
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 705,184,2010
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 751,49,2012
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 752,99,2013
TOXICOLOGY REVIEW	TXAPA9 Toxicology and Applied Pharmacology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1959- Volume(issue)/page/year: 254,100,2011
TOXICOLOGY REVIEW	TXAPA9 Toxicology and Applied Pharmacology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1959- Volume(issue)/page/year: 255,113,2011
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 769,34,2014
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 762,76,2014
TOXICOLOGY REVIEW	FCTOD7 Food and Chemical Toxicology. (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.20- 1982- Volume(issue)/page/year: 55,596,2013
TOXICOLOGY REVIEW	TXAPA9 Toxicology and Applied Pharmacology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1959- Volume(issue)/page/year: 266,345,2013
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 802,1,2016
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 770,92,2016
TOXICOLOGY REVIEW	MUREAV Mutation Research. (Elsevier Science Pub. B.V., POB 211, 1000 AE Amsterdam, Netherlands) V.1- 1964- Volume(issue)/page/year: 770,170,2016
TOXICOLOGY REVIEW	REPTED Reproductive Toxicology. (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.1- 1987- Volume(issue)/page/year: 71,71,2017
TOXICOLOGY REVIEW	RTOPDW Regulatory Toxicology and Pharmacology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1981- Volume(issue)/page/year: 58,395,2010
TOXICOLOGY REVIEW	RTOPDW Regulatory Toxicology and Pharmacology. (Academic Press, Inc., 1 E. First St., Duluth, MN 55802) V.1- 1981- Volume(issue)/page/year: 59,364,2011

U.S. STANDARDS AND REGULATIONS

EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION	FEREAC Federal Register. (U.S. Government Printing Office, Supt. of Documents, Washington, DC 20402) V.1- 1936- Volume(issue)/page/year: 54,7740,1989
EPA FIFRA 1998 STATUS OF PESTICIDES: Cancelled	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 Volume(issue)/page/year: -,263,1998
MSHA STANDARD-air:TWA 500 ppm (1750 mg/m3)	DTLVS* The Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs) booklet issues by American Conference of Governmental Industrial Hygienists (ACGIH), Cincinnati, OH, 1996 Volume(issue)/page/year: 3,171,1971
OSHA PEL (Gen Indu):8H TWA 500 ppm;CL 1000 ppm;Pk 2000 ppm/5M/2H	CFRGBR Code of Federal Regulations. (U.S. Government Printing Office, Supt. of Documents, Washington, DC 20402) Volume(issue)/page/year: 29,1910.1000,1994
OSHA PEL (Construc):see 56 FR 57036	CFRGBR Code of Federal Regulations. (U.S. Government Printing Office, Supt. of Documents, Washington, DC 20402) Volume(issue)/page/year: 29,1926.55,1994
OSHA PEL (Shipyard):8H TWA 500 ppm (1740 mg/m3	CFRGBR Code of Federal Regulations. (U.S. Government Printing Office, Supt. of Documents, Washington, DC 20402) Volume(issue)/page/year: 29,1915.1000,1993
OSHA PEL (Fed Cont):8H TWA 500 ppm (1740 mg/m3)	CFRGBR Code of Federal Regulations. (U.S. Government Printing Office, Supt. of Documents, Washington, DC 20402) Volume(issue)/page/year: 41,50-204.50,1994

OCCUPATIONAL EXPOSURE LIMITS

OEL-AUSTRALIA: TWA 50 ppm (174 mg/m3), Carcinogen, JUL2008

OEL-AUSTRIA: MAK-TMW 50 ppm (175 mg/m3);KZW 200 ppm (700 mg/m3), skin, 2007

OEL-BELGIUM: TWA 50 ppm (177 mg/m3), MAR2002

OEL-DENMARK: TWA 35 ppm (122 mg/m3), skin, carc, MAY2011

OEL-FINLAND: TWA 100 ppm (350 mg/m3), STEL 250 ppm (880 mg/m3), NOV2011

OEL-FRANCE: VME 50 ppm (180 mg/m3), VLE 100 ppm, C3 Carcinogen, FEB2006

OEL-HUNGARY: TWA 10 mg/m3, STEL 10 mg/m3, SEP2000

OEL-ICELAND: TWA 35 ppm (122 mg/m3), skin, NOV2011

OEL-JAPAN: OEL 50 ppm (170 mg/m3), OEL-C 100 ppm (340 mg/m3), skin, 2B carc, MAY2012

OEL-KOREA: TWA 50 ppm (175 mg/m3), 2006

OEL-MEXICO: TWA 100 ppm (330 mg/m3);STEL 500 ppm (1740 mg/m3), 2004

OEL-THE NETHERLANDS: MAC-TGG 350 mg/m3, 2003

OEL-NEW ZEALAND: TWA 50 ppm (174 mg/m3), JAN2002

OEL-NORWAY: TWA 35 ppm (125 mg/m3), JAN1999

OEL-PERU: TWA 50 ppm (174 mg/m3), JUL2005

OEL-THE PHILIPPINES: TWA 500 ppm (1740 mg/m3), JAN1993

OEL-POLAND: MAC(TWA) 20 mg/m3, STEL 50 mg/m3, JAN1999

OEL-RUSSIA: TWA 50 mg/m3, STEL 100 mg/m3, JUN2003

OEL-SWEDEN: TWA 35 ppm (120 mg/m3);STEL 70 ppm (250 mg/m3), Skin, Carcinogen, JUN2005

OEL-SWITZERLAND: MAK-W 50 ppm (180 mg/m3), carc 3, JAN2011

OEL-THAILAND: TWA 500 mg/m3, STEL 1000 mg/m3, JAN1993

OEL-TURKEY: TWA 500 ppm (1740 mg/m3), JAN1993

OEL-UNITED KINGDOM: TWA 100 ppm (350 mg/m3);STEL 300 ppm (1060 mg/m3), skin, OCT2007

OEL IN ARGENTINA, BULGARIA, COLOMBIA, JORDAN check ACGIH TLV;

OEL IN SINGAPORE, VIETNAM check ACGIH TLV

NIOSH STANDARDS DEVELOPMENT AND SURVEILLANCE DATA

NIOSH Recommended Exposure Level (Rel)

NIOSH REL TO METHYLENE CHLORIDE-air:CA lowest feasible concentration
NIOSH* National Institute of Occupational Safety and Health, U.S. Dept. of Health, Education, and Welfare, Reports and Memoranda. Volume(issue)/page/year: DHHS #92-100,1992

NIOSH Occupational Exposure Survey Data

NOHS - National Occupational Hazard Survey (1974)
Hazard code: 47270
No. of industries: 374
No. of facilities: 89025 (estimated)
No. of occupations: 192
No. of employees: 975696 (estimated)

NOES - National Occupational Exposure Survey (1983)
Hazard code: 47270
No. of industries: 363
No. of facilities: 87086 (estimated)
No. of occupations: 212
No. of employees: 1438196 (estimated)
No. of female employees: 352536 (estimated)

STATUS IN U.S.

ATSDR TOXICOLOGY PROFILE

NTIS** National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information. Volume(issue)/page/year: PB/2000/108026

EPA GENETOX PROGRAM 1988, Positive: Cell transform.-RLV F344 rat embryo

EPA GENETOX PROGRAM 1988, Positive: Histidine reversion-Ames test

EPA GENETOX PROGRAM 1988, Positive: S cerevisiae gene conversion; S cerevisiae-homozygosis

EPA GENETOX PROGRAM 1988, Positive: S cerevisiae-reversion

EPA GENETOX PROGRAM 1988, Negative: D melanogaster Sex-linked lethal

EPA TSCA Section 8(b) CHEMICAL INVENTORY

EPA TSCA 8(a) PRELIMINARY ASSESSMENT INFORMATION, FINAL RULE

FEREAC Federal Register. (U.S. Government Printing Office, Supt. of Documents, Washington, DC 20402) V.1- 1936- Volume(issue)/page/year: 47,26992,82

EPA TSCA Section 8(d) unpublished health/safety studies

On EPA IRIS database

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 2001

NIOSH CURRENT INTELLIGENCE BULLETIN 46, 1986

NIOSH Analytical Method, 1994: Methylene chloride, 1005

NIOSH Analytical Method, 1996: Volatile organic compound, 2549

NCI Carcinogenesis Studies (inhal);clear evidence:mouse,rat

NTP 14th Report on Carcinogens,2016:Reasonably anticipated to be human carcinogen

OSHA ANALYTICAL METHOD #80

END OF RECORD

RTECS® is provided quarterly by BIOVIA, and was last updated: **March, 2019**.

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