

Report on Carcinogens

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Appendix A: Cancer Hazards Not Included in the NTP Report on Carcinogens

Certain manufacturing processes, occupations, and other exposure circumstances have been classified as carcinogens by authoritative sources, including the International Agency for Research on Cancer (IARC), the World Cancer Research Fund (WCRF), and the National Toxicology Program (NTP). These cancer hazards are not included in the Report on Carcinogens (RoC) either because of uncertainty as to whether they meet the legislative mandate of the RoC or because certain aspects of these exposures may differ in different parts of the world.

Occupational practices or manufacturing processes classified by IARC or NTP as carcinogenic to humans

- Acheson process, occupational exposure associated with (synthesis of silicon carbide) (IARC 2017)
- Aluminum production, occupational exposures during (IARC 2012b)
- Auramine production (IARC 2012c)
- Coal gasification (IARC 2012d)
- Coal-tar distillation, occupational exposures during (IARC 2012e)
- Coke production (IARC 2012f)
- Hematite mining, underground, with exposure to radon (IARC 2012g)
- Iron and steel founding, occupational exposure during (IARC 2012h)
- Isopropyl alcohol manufacture by the strong-acid process (IARC 2012i)
- Persistent night shift work that causes circadian disruption (NTP 2018)
- Magenta production (IARC 2012a)
- Painter, occupational exposure as a (IARC 2012l)
- Rubber-manufacturing industry, occupational exposures in the (IARC 2012m)
- Ultraviolet radiation from welding (IARC 2018c)

Dietary factors classified as cancer hazards by WCRF (convincing evidence) or IARC (carcinogenic to humans)

- Obesity, overweight, or body fatness (IARC 2018b, WCRF 2018)
- Processed meat (IARC 2018a, WCRF 2018)
- Salted fish, Chinese style (IARC 2012o, WCRF 2018)
- Other exposure scenarios classified by IARC or NTP as Cancer Hazards
- Estrogen-only menopausal therapy (IARC 2012n)^{1,2}
- Estrogen-progestogen, menopausal therapy (IARC 2012j)
- Estrogen-progestogen, oral contraceptives (IARC 2012k)²

References

IARC. 2012a. Magenta and magenta production. In *Chemical Agents and Related Occupations*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 100F. Lyon, France: International Agency for Research on Cancer. pp. 105-110.

IARC. 2012b. Occupational exposures during aluminium production. In *Chemical Agents and Related Occupations*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 100F. Lyon, France: International Agency for Research on Cancer. pp. 215-223.

IARC. 2012c. Auramine and auramine production. In *Chemical Agents and Related Occupations*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 100F. Lyon, France: International Agency for Research on Cancer. pp. 101-104.

IARC. 2012d. Coal gasification. In *Chemical Agents and Related Occupations*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 100F. Lyon, France: International Agency for Research on Cancer. pp. 145-152.

IARC. 2012e. Occupational exposures during coal-tar distillation. In *Chemical Agents and Related Occupations*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 100F. Lyon, France: International Agency for Research on Cancer. pp. 153-160.

IARC. 2012f. Coke production. In *Chemical Agents and Related Occupations*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 100F. Lyon, France: International Agency for Research on Cancer. pp. 167-178.

IARC. 2012g. Internalized α -particle emitting radionuclides. In *Radiation*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 100D. Lyon, France: International Agency for Research on Cancer. pp. 241-283.

IARC. 2012h. Occupational exposures during iron and steel founding. In *Chemical Agents and Related Occupations*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 100F. Lyon, France: International Agency for Research on Cancer. pp. 497-507.

IARC. 2012i. Isopropyl alcohol manufacture by the strong-acid process. In *Chemical Agents and Related Occupations*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 100F. Lyon, France: International Agency for Research on Cancer. pp. 479-485.

IARC. 2012j. Combined estrogen-progestogen menopausal therapy. In *Pharmaceuticals*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 100A. Lyon, France: International Agency for Research on Cancer. pp. 249-282.

IARC. 2012k. Combined estrogen-progestogen contraceptives. In *Pharmaceuticals*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 100A. Lyon, France: International Agency for Research on Cancer. pp. 283-317.

IARC. 2012l. Occupational exposures as a painter. In *Chemical Agents and Related Occupations*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 100F. Lyon, France: International Agency for Research on Cancer. pp. 509-539.

IARC. 2012m. Occupational exposures during rubber manufacturing. In *Chemical Agents and Related Occupations*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 100F. Lyon, France: International Agency for Research on Cancer. pp. 541-562.

IARC. 2012n. Estrogen-only menopausal therapy. In *Pharmaceuticals*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 100A. Lyon, France: International Agency for Research on Cancer. pp. 219-247.

IARC. 2012o. Chinese-style salted fish. In *Personal Habits and Indoor Combustions*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 100E. Lyon, France: International Agency for Research on Cancer. pp. 501-514.

IARC. 2017. Silicon carbide. In *Some Nanomaterials and Some Fibres*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 111. Lyon, France: International Agency for Research on Cancer. pp. 243-313.

IARC. 2018a. *Red Meat and Processed Meat*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 114. Lyon, France: International Agency for Research on Cancer. 517 pp.

IARC. 2018b. *Absence of Excess Body Fatness*. IARC Handbooks of Cancer Prevention, vol. 16. Lyon, France: International Agency for Research on Cancer. 658 pp.

IARC. 2018c. *Welding, Molybdenum Trioxide, and Indium Tin Oxide*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 118. Lyon, France: International Agency for Research on Cancer. 320 pp.

NTP. 2018. *Draft Report on Carcinogens Monograph on Night Shift Work and Light at Night*. Research Triangle Park, NC: National Toxicology Program. 350 pp. <https://ntp.niehs.nih.gov/go/717273>.

WCRF. 2018. *Diet, Nutrition, Physical Activity, and Cancer: a Global Perspective*. London, England: World Cancer Research Fund. 116 pp. <http://dietandcancerreport.org>.

¹Estrogens, steroidal are listed in the RoC as known to be human carcinogens based on sufficient evidence of carcinogenicity from studies in humans, which consist mainly of studies of estrogen postmenopausal therapy.

²IARC's conclusions are discussed in the Estrogens, Steroidal substance profile.

Appendix B: Substances Delisted from the Report on Carcinogens

The agents, substances, mixtures, or exposure circumstances contained in this appendix were previously listed in the Report on Carcinogens (RoC) as either *known* or *reasonably anticipated to be human carcinogens*. For substances removed from the RoC prior to the 1996 establishment of a formal review procedure for delisting substances from the RoC, the table below shows the reason for delisting. The table indicates the last edition of the RoC in which these substances appeared, to which reference can be made for all information available.

For each substance removed from the RoC as a result of a formal review for delisting (from the Eighth Edition forward), a profile is provided following the table, which summarizes the review for delisting, including the relevant information and the issues identified by the scientific review groups that led to the substance's delisting.

Substance Name	CAS Number	Last Listing	Reason for Delisting
Chloramphenicol	56-75-7	<i>known</i> First RoC (1980)	Human data considered inadequate
Aramite	140-57-8	<i>reasonably anticipated</i> Fourth RoC (1985)	No U.S. residents exposed
<i>N,N</i> -Bis(2-chloroethyl)-2-naphthylamine (chlornaphazine)	494-03-1	<i>known</i> Fourth RoC (1985)	No U.S. residents exposed
Cycasin	14901-08-7	<i>reasonably anticipated</i> Fourth RoC (1985)	No U.S. residents exposed
Methyl iodide	78-88-4	<i>reasonably anticipated</i> Fourth RoC (1985)	Reevaluated by IARC; evidence now considered equivocal
5-Nitro- <i>o</i> -anisidine	99-59-2	<i>reasonably anticipated</i> Fifth RoC (1989)	Insufficient evidence of carcinogenicity
<i>p</i> -Nitrosodiphenylamine	156-10-5	<i>reasonably anticipated</i> Fifth RoC (1989)	Insufficient evidence of carcinogenicity
Ethyl acrylate	140-88-5	<i>reasonably anticipated</i> Eighth RoC (1998)	See following profile
Saccharin	81-07-2	<i>reasonably anticipated</i> Eighth RoC (1998)	See following profile

Report on Carcinogens Review Group Actions on the Nomination of Ethyl Acrylate for Delisting from the Report on Carcinogens

Summary of data contained in the Ethyl Acrylate Background Document (December 1998)

Ethyl Acrylate

CAS No. 140-88-5

Ethyl acrylate is used in various industries as an intermediate in the production of emulsion-based polymers which are then used in paint formulations, industrial coatings, and latex products. It is also used as a synthetic flavoring substance and fragrance adjuvant in consumer products. Human exposure to ethyl acrylate occurs mostly through inhalation of ethyl acrylate vapors, but it may also result from skin contact or ingestion as a food additive or from drinking of contaminated water. The Report on Carcinogens review groups considered the data underlying the nomination to remove ethyl acrylate from the Report on Carcinogens, where it has been listed as *reasonably anticipated to be a human carcinogen* since 1989. The basis for this listing was a gavage study that resulted in dose-related benign and malignant forestomach neoplasms in rats and mice. The Basic Acrylic Monomer Manufacturers, Inc. (BAMM), submitted a nomination to remove ethyl acrylate from the Report on Carcinogens based upon the following information: (1) negative tumorigenicity results from chronic-exposure studies using routes other than gavage in corn oil, (2) research results suggesting that the forestomach carcinogenicity observed in the gavage studies was secondary to a site-specific and concentration-dependent irritating effect of ethyl acrylate, and (3) the fact that significant human exposure to ethyl acrylate monomer is unlikely in light of current manufacturing practices and patterns of usage (see Human Exposure and Cancer Studies in Humans, below).

The majority opinion of the Report on Carcinogens review groups was to recommend that ethyl acrylate be removed from the Report on Carcinogens. This opinion was based on the facts that (1) the forestomach tumors induced in animal studies were seen only when ethyl acrylate was administered by gavage at high concentrations that induced marked local irritation and cellular proliferation, (2) animal studies using other routes of administration, including inhalation, gave negative results, and (3) significant chronic human oral exposure to high concentrations of ethyl acrylate monomer is unlikely. Therefore, ethyl acrylate does not meet the criteria to be listed in the Report on Carcinogens as *reasonably anticipated to be a human carcinogen*.

Summary of Available Carcinogenicity Data and Other Relevant Information

Cancer Studies in Experimental Animals

Although mutagenic in some *in vitro* tests, ethyl acrylate is not genotoxic under *in vivo* physiological conditions, perhaps because of its rapid metabolism to acrylic acid and ethanol by carboxyesterases and detoxification through binding to non-protein sulfhydryls. Target tissue toxicity in the form of irritation was observed in the skin in a lifetime mouse skin-painting study, in the nasal olfactory mucosa in 27-month inhalation studies in rats and mice, and in the forestomach in two-year corn-oil gavage studies in rats and mice. Only body-weight reduction was observed in a two-year study of exposure via drinking water in rats. The forestomach carcinogenicity observed in the corn-oil gavage studies was the only treatment-related tumorigenic response in the various animal studies. The irritation, hyper-

plasia, and tumor responses in the forestomach were related more to target-tissue concentration of ethyl acrylate than to delivered dose in the chronic gavage study. Based upon stop-exposure studies, gavage doses of ethyl acrylate in corn oil sufficient to induce sustained mucosal hyperplasia in the forestomach must be administered for longer than six months to induce forestomach neoplasia.

Human Exposure and Cancer Studies in Humans

Prolonged consumer exposure to high levels of ethyl acrylate monomer by the oral route is unlikely. Potentially significant exposures would most likely occur in an occupational setting where the routes of exposure would be dermal or by inhalation. Ethyl acrylate has a strong acrid odor (odor threshold ~ 0.5 ppb) and is a known irritant to the skin, eyes, and mucous membranes, making it unlikely that humans would be chronically exposed to high concentrations. Data provided in the BAMM nomination on worker exposure showed occupational exposure well below the threshold limit value (TLV = 5 ppm for an eight-hour time-weighted average) and the short-term exposure limit (STEL = 15 ppm), although exposure of painters in an unventilated room has been reported to be as high as 8 ppm in the painter's breathing zone.

An epidemiology study reported on mortality from cancer of the colon and rectum in three separate cohorts of workers from two plants manufacturing and polymerizing acrylate monomers. Workers were exposed to ethyl acrylate and methyl methacrylate monomer between 1933 and 1982. Risks for both types of cancer were associated with exposure in the earliest cohort, although the rectal cancer results are imprecise because of the small number of cases involved. The greatest relative risk was found in workers with the highest level of exposure and a 20-year latency. The other two cohorts, with later dates of hire, showed no excess risk, but very few cases were available for observation. This study, by itself, can neither establish nor rule out a causal relationship of ethyl acrylate with cancer.

Action on Nomination

Ethyl acrylate will be removed from the Report on Carcinogens because the relevant data are not sufficient to meet the current criteria to list this chemical as *reasonably anticipated to be a human carcinogen*. This is based on the fact that the forestomach tumors induced in animal studies were seen only when the chemical was administered by gavage at high concentrations of ethyl acrylate that induced marked local irritation and cellular proliferation, and because significant chronic human exposure to high concentrations of ethyl acrylate monomer is unlikely.

Report on Carcinogens Review Group Actions on the Nomination of Saccharin for Delisting from the Report on Carcinogens

Summary of data contained in the Saccharin Background Document (October 1997)

Saccharin

CAS No. 81-07-2

Saccharin and its sodium and potassium salts have been produced commercially in the United States for over 80 years. Saccharin is primarily used as a non-nutritive sweetening agent. Potential exposure to saccharin occurs through the consumption of dietetic foods and drinks and the use of some personal hygiene products. Potential exposure to saccharin also occurs in the workplace, specifically in occupations, industries, or facilities that produce and deal with saccharin

and its salts. The Report on Carcinogens review groups considered the data underlying the nomination to remove saccharin from the Report on Carcinogens where it has been listed as *reasonably anticipated to be a human carcinogen* since 1981. The basis for this listing was sufficient evidence of carcinogenicity in experimental animals. The Calorie Control Council submitted a nomination to the NTP to consider removing saccharin from the Report on Carcinogens based upon mechanistic data related to development of urinary-bladder cancers in rats (see Studies on Mechanisms of Carcinogenesis, below).

The majority opinion of the review groups was to recommend that saccharin be removed from the Report on Carcinogens. There is evidence for the carcinogenicity of saccharin in rats, but less convincing evidence in mice. Studies indicate that the observed urinary-bladder cancers in rats are related to the physiology of the rat urinary system, including urinary pH, osmolality, volume, the presence of precipitate, and urothelial damage with attendant hyperplasia following consumption of diets containing sodium saccharin at concentrations of 3% or higher, with inconsistent findings at lower dietary concentrations. The factors thought to contribute to tumor induction by sodium saccharin in rats would not be expected to occur in humans. The mouse data are inconsistent and require verification by additional studies. Results of several epidemiology studies indicate no clear association between saccharin consumption and urinary-bladder cancer. Although it is impossible to conclude with absolute certainty that it poses no threat to human health, sodium saccharin is not *reasonably anticipated to be a human carcinogen* under conditions of general usage as an artificial sweetener.

Summary of Available Carcinogenicity Data and Other Relevant Information

Cancer Studies in Experimental Animals

In four studies of up to 30 months' duration, sodium saccharin was carcinogenic in Charles River CD and Sprague-Dawley male rats, as evidenced by a dose-related increased incidence of benign or malignant urinary-bladder neoplasms at dietary concentrations greater than 1% (Tisdell *et al.* 1974, Arnold *et al.* 1980, Taylor *et al.* 1980, Schoenig *et al.* 1985). Non-statistically-significant increases in urinary-bladder cancer also were seen in saccharin-exposed female rats in studies showing a positive effect in males (Arnold *et al.* 1980, Taylor *et al.* 1980). Furthermore, several initiation/promotion studies in different rat strains showed a reduced latency and/or increased incidence of similar urinary-bladder cancers in male and female rats fed sodium saccharin after treatment with various urinary-bladder tumor initiators (e.g., Hicks and Chowanec 1977, Cohen *et al.* 1979, Nakanishi *et al.* 1980a, West *et al.* 1986, Fukushima *et al.* 1990). Several additional rat studies in which sodium saccharin was administered either in the diet or in drinking water gave negative results for tumorigenicity (Fitzhugh *et al.* 1951, Lessell 1971, Schmähl 1973, Chowanec and Hicks 1979, Hooson *et al.* 1980, Schmähl and Habs 1984).

Three mouse studies reported carcinogenicity following exposure to saccharin. Two of these studies involved surgical implantation of saccharin-containing cholesterol pellets into the urinary bladders and resulted in development of malignant urothelial neoplasms (Allen *et al.* 1957, Bryan *et al.* 1970). In the third study, dietary exposure to sodium saccharin resulted in increased incidences of malignant thyroid-gland neoplasms (Prasad and Rai 1986). Although the data from studies in mice cannot be discounted, some of these studies had methodological flaws, provided limited information, did not show a dose-response relationship, or had unexpected outcomes that may be species- or strain-specific, and should be verified by additional studies. The results of four studies in mice were

judged negative for tumorigenesis (Roe *et al.* 1970, Kroes *et al.* 1977, Homberger 1978, Frederick *et al.* 1989), as were limited studies in nonhuman primates (McChesney *et al.* 1977, Sieber and Adamson 1978, Thorngierson *et al.* 1994, Cohen *et al.* 1996) and a single hamster study (Althoff *et al.* 1975).

Cancer Studies in Humans

Most of the relevant human epidemiology studies examined associations between urinary-bladder cancer and artificial sweeteners, rather than saccharin *per se*. The time-trend data for urinary-bladder cancer showed no clear indication that the increased use of saccharin or artificial sweeteners commencing in the 1940s was associated with a general increase in urinary-bladder cancer when confounding factors, chiefly smoking, were controlled for. Risks of urinary-bladder cancer in diabetics, who presumably consume greater amounts of artificial sweeteners than the general population, were no greater than risks in the general population (Armstrong and Doll 1975). Based upon several case-control studies, there was no overall association between use of artificial sweeteners and urinary-bladder cancer (reviewed by IARC 1980, 1987b, JECFA 1993). However, an association between use of artificial sweeteners and urinary-bladder cancer could not be ruled out in some case-control subgroups, albeit involving small numbers (Howe *et al.* 1980, Hoover and Strasser 1980, Cartwright *et al.* 1981, Morrison *et al.* 1982, Mommsen *et al.* 1983). Taken together, the available epidemiology data show no consistent evidence that saccharin is associated with increased urinary-bladder cancer in general; however, a small increased risk in some subgroups, such as heavy users of artificial sweeteners, cannot be unequivocally excluded. With regard to the general population, if sodium saccharin is a risk factor, it is weak, and a causal relationship with cancer cannot be proven or disproven, because of a lack of exposure data and intrinsic limitations of the available epidemiology studies.

Studies on Mechanisms of Carcinogenesis

Extensive studies of the mutagenicity and genotoxicity of saccharin have shown generally negative but occasionally conflicting results. Sodium saccharin is essentially nonmutagenic in conventional bacterial systems, but is weakly clastogenic or genotoxic in short-term *in vitro* and in some *in vivo* test systems (reviewed by Ashby 1985, IARC 1987a,b, Whysner and Williams 1996). Urine from mice exposed to sodium saccharin was mutagenic in *Salmonella typhimurium* in one study (Batzinger *et al.* 1977). Saccharin does not covalently bind to DNA and does not induce unscheduled DNA synthesis in urinary-bladder urothelium.

Saccharin-induced carcinogenesis in rats showed a sex predilection for males (Tisdell *et al.* 1974, Arnold *et al.* 1980, Taylor *et al.* 1980), an organ specificity for urinary bladder (Tisdell *et al.* 1974, Arnold *et al.* 1980, Taylor *et al.* 1980, Fukushima *et al.* 1983, Schoenig *et al.* 1985), and a dose-response when exposure to dietary concentrations of 1% to 7.5% of the sodium salt of saccharin was begun early in life (beginning at birth or immediately at weaning) and continued for approximately two years (Schoenig *et al.* 1985). The results of mechanistic studies have shown that certain physiological conditions must be simultaneously or sequentially present for induction of urinary-bladder tumorigenesis. These conditions include a urinary pH greater than 6.5, increased urinary sodium concentration, increased urine volume, decreased urine osmolality, and presence of urinary crystals or precipitate, with resulting damage to the urothelium prompting a proliferative (hyperplastic) response of the urinary-bladder epithelium. All of these conditions have been studied extensively in male rats but less so in female rats or in mice. The high levels of urinary protein characteristically produced by male rats may partially explain

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the sex predilection. The high intrinsic rate of urothelial proliferation at about the time of weaning is also believed to contribute to the observed tumorigenic effects. The urinary milieu in rats, especially male rats, is sufficiently different from that in humans or other species to support the contention that these observations are specific to rats. Pharmacokinetic and metabolism data on sodium saccharin do not explain the male rat's sensitivity for induction of urinary-bladder neoplasms (Sweatman and Renwick 1979, 1980).

Action On Nomination

Saccharin will be removed from the Report on Carcinogens, because the data on cancer in rodents are not sufficient to meet the current criteria to list this chemical as *reasonably anticipated to be a human carcinogen*. This decision is based on the perception that the observed urinary-bladder tumors in rats arise by mechanisms not relevant to humans, and the lack of data in humans suggesting a carcinogenic hazard.

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Appendix C:

Substances Reviewed but Not Recommended for Listing in the Report on Carcinogens

The following table contains a record of nominations that were formally considered for listing by the NTP and, after evaluation by the Report on Carcinogens review groups, were recommended not to be listed in the Report on Carcinogens.

Substance Name/ CAS Number	RoC Edition/ Review Date ¹	Reason for Not Listing	Review Document ²
Methyl <i>tert</i> -butyl ether (MTBE) 1634-04-4	Ninth RoC 1998	Rodent cancer data were not sufficient.	https://ntp.niehs.nih.gov/ntp/newhomeroc/other/background/mtbe1_508.pdf
Nickel alloys	Tenth RoC 2000	Human data were inadequate, and rodent cancer data were not sufficient.	https://ntp.niehs.nih.gov/ntp/newhomeroc/roc10/ni_no_appendices_508.pdf
Diethanolamine 111-42-2	Eleventh RoC 2002	Rodent cancer data were not sufficient.	https://ntp.niehs.nih.gov/ntp/newhomeroc/roc11/deapub_no_appendices_508.pdf
Monochloroacetic Acid 79-11-8	Fifteenth RoC 2018	Rodent cancer data were not sufficient.	https://ntp.niehs.nih.gov/go/HAAAs
Trichloroacetic Acid 76-03-9	Fifteenth RoC 2018	Rodent cancer data were not sufficient.	https://ntp.niehs.nih.gov/go/HAAAs
Light at Night	Fifteenth RoC 2020	It is uncertain whether the exposure circumstance meets the definition of "substance."	https://ntp.niehs.nih.gov/go/NSW_LAN
Night Shift Work	Fifteenth RoC 2020	It is uncertain whether the exposure circumstance meets the definition of "substance."	https://ntp.niehs.nih.gov/go/NSW_LAN

¹Final background document or monograph.

²URL for the document or for the website from which the document can be accessed.

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Appendix E: Chemicals Nominated to the NTP for In- Depth Toxicological Evaluation

A searchable database of substances nominated to the NTP for toxicological testing is available on the NTP website at <http://ntp.niehs.nih.gov/go/nom-search>. The available information includes the substance nominated and the nomination date, source, rationale, and status. If NTP testing has been conducted, a link is provided to the results and status information. Nominations can be searched by substance name, Chemical Abstract Service Registry Number (CASRN) or keyword.

The Management Status Report (<http://ntp.niehs.nih.gov/go/MSR-index>) gives the status of substances selected for study using standard 2-week, 13-week, and/or 2-year toxicology and carcinogenicity protocols. Abstracts for all published NTP long-term carcinogenicity technical reports and short-term toxicity study reports are available electronically on the NTP Web site. To view the abstracts or download full reports, visit <http://ntp.niehs.nih.gov>.

For additional information about NTP studies, contact Central Data Management, Mail Drop K2-05, NIEHS, P.O. Box 12233, Research Triangle Park, NC 27709 (phone: 919-541-3419; e-mail: CDM@niehs.nih.gov).

Appendix F: Substance Names and Common Synonyms

Appendix F contains a list of the substance names and common synonyms for substances listed in the Report on Carcinogens. This list includes both chemical names and common names as used in the substance profiles. This list is not intended to be an exhaustive listing of all possible alternative names or synonyms.

A

2-AAF *see* 2-Acetylaminofluorene
 ABP *see* 4-Aminobiphenyl
 ABVD therapy *see* Dacarbazine
 ADBAQ *see* 1-Amino-2,4-dibromoanthraquinone
 AFB1 *see* Aflatoxins
 As *see* Arsenic and Inorganic Arsenic Compounds
 ATO *see* Antimony Trioxide
 5-AzaC *see* Azacitidine
 2-acetamidofluorene *see* 2-Acetylaminofluorene
 2-acetaminofluorene *see* 2-Acetylaminofluorene
 acetate blue G *see* Disperse Blue 1
 acetic aldehyde *see* Acetaldehyde
 acetothioamide *see* Thioacetamide
 acetylaldehyde *see* Acetaldehyde
 acetylhydride *see* Acetaldehyde
 acid red 114 (C.I.) *see* 3,3'-Dimethylbenzidine and Dyes Metabolized to 3,3'-Dimethylbenzidine, Dyes Metabolized to 3,3'-Dimethylbenzidine
 aciniform carbon *see* Soots
 acrylic acid amide *see* Acrylamide
 actinolite *see* Asbestos
 actinon *see* Ionizing Radiation, Radon
 alcohol drinking *see* Alcoholic Beverage Consumption
 aluminum-beryllium alloy *see* Beryllium and Beryllium Compounds
 o-aminoanisole *see* o-Anisidine and Its Hydrochloride
 2-aminoanisole hydrochloride *see* o-Anisidine and Its Hydrochloride
 2-aminoazotoluene *see* o-Aminoazotoluene
 p-aminobiphenyl *see* 4-Aminobiphenyl
 2-amino-3,4-dimethylimidazo[4,5-f]quinoline *see* Heterocyclic Amines (Selected)
 2-amino-3,8-dimethylimidazo[4,5-f]quinoxaline *see* Heterocyclic Amines (Selected)
 4-aminodiphenyl *see* 4-Aminobiphenyl
 p-aminodiphenyl *see* 4-Aminobiphenyl
 para-aminodiphenyl *see* 4-Aminobiphenyl
 2-amino-3-methyl-3H-imidazo[4,5-f]quinoline *see* Heterocyclic Amines (Selected), 2-Amino-3-methylimidazo[4,5-f]quinoline (IQ)
 2-amino-1-methyl-6-phenylimidazo[4,5-b]pyridine *see* Heterocyclic Amines (Selected)
 2-amino-3-methylimidazo[4,5-f]quinoline *see* Heterocyclic Amines (Selected)
 4-[(4-aminophenyl)(4-imino-2,5-cyclohexadien-1-ylidene)methyl]-benzenamine, monohydrochloride *see* Basic Red 9 Monohydrate
 4-amino-1-β-D-ribofuranosyl-1,3,5-triazin-2(1H)-one *see* Azacitidine
 3-amino-1,2,4-triazol *see* Amitrole

aminotriazole *see* Amitrole
 amosite *see* Asbestos
 analgesic mixtures containing phenacetin *see* Phenacetin and Analgesic Mixtures Containing Phenacetin
 2-anisidine hydrochloride *see* o-Anisidine and Its Hydrochloride
 anthophyllite *see* Asbestos
 Aroclor 1016 *see* Polychlorinated Biphenyls
 Arcolor 1221 *see* Polychlorinated Biphenyls
 Aroclor 1242 *see* Polychlorinated Biphenyls
 Aroclor 1248 *see* Polychlorinated Biphenyls
 Aroclor 1254 *see* Polychlorinated Biphenyls
 Aroclor 1260 *see* Polychlorinated Biphenyls
 Aroclor 1262 *see* Polychlorinated Biphenyls
 arsanilic acid *see* Arsenic and Inorganic Arsenic Compounds
 arsenate *see* Arsenic and Inorganic Arsenic Compounds
 arsenite *see* Arsenic and Inorganic Arsenic Compounds
 arsenous oxide *see* Arsenic and Inorganic Arsenic Compounds
 arsenous trichloride *see* Arsenic and Inorganic Arsenic Compounds
 arsine *see* Arsenic and Inorganic Arsenic Compounds
 5-azacytidine *see* Azacitidine

B

B-1 glass fibers *see* Certain Glass Wool Fibers (Inhalable)
 B-09 glass fibers *see* Certain Glass Wool Fibers (Inhalable)
 B-20 glass fibers *see* Certain Glass Wool Fibers (Inhalable)
 BA *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Benz[a]anthracene
 B[a]P *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Benzo[a]pyrene
 BB-153 (hexabromobiphenyl) *see* Polybrominated Biphenyls
 B[b]F *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Benzo[b]fluoranthene
 BBMP *see* 2,2-Bis(bromomethyl)-1,3-propanediol (Technical Grade)
 BCME *see* Bis(chloromethyl) Ether and Technical-Grade Chloromethyl Methyl Ether
 BCNU *see* Nitrosourea Chemotherapeutic Agents, Bis(chloroethyl) Nitrosourea
 Be *see* Beryllium and Beryllium Compounds
 BHA *see* Butylated Hydroxyanisole
 B[j]F *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Benzo[j]fluoranthene
 B[k]F *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Benzo[k]fluoranthene
 basic fuchsin dye *see* Basic Red 9 Monohydrochloride
 basic red 9 *see* Basic Red 9 Monohydrochloride
 basic zinc chromate *see* Chromium Hexavalent Compounds
 beer *see* Alcoholic Beverage Consumption
 1,2-benzanthracene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Benz[a]anthracene
 benz[a]anthracene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings
 benz[a]anthracene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Benz[a]anthracene
 benz[e]acephenanthrylene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Benzo[b]fluoranthene
 benzidine dye class *see* Benzidine and Dyes Metabolized to Benzidine, Dyes Metabolized to Benzidine

benzo[*b*]fluoranthene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

benzo[*j*]fluoranthene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

benzo[*k*]fluoranthene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

benzoic trichloride *see* Benzotrichloride

benzol *see* Benzene

benzo[*rst*]pentaphene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Dibenzo[*a,i*]pyrene

benzo[*a*]pyrene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

beryl ore *see* Beryllium and Beryllium Compounds

beta-aminoanthraquinone *see* 2-Aminoanthraquinone

beta-naphthylamine *see* 2-Naphthylamine

bidis *see* Tobacco-Related Exposures, Tobacco Smoking

2,2'-bioxirane *see* Diepoxybutane

4-biphenylamine *see* 4-Aminobiphenyl

2,2-bis(bromomethyl)propane-1,3-diol *see* 2,2-Bis(bromomethyl)-1,3-propanediol (Technical Grade)

bischloroethyl nitrosourea *see* Nitrosourea Chemotherapeutic Agents, Bis(chloroethyl) Nitrosourea

bis(chloroethyl) nitrosourea *see* Nitrosourea Chemotherapeutic Agents, Bis(chloroethyl) Nitrosourea

4-[bis(2-chloroethyl)amino]-L-phenylalanine *see* Melphalan

4-[*p*]-[bis(2-chloroethyl)amino]phenyl]butyric acid *see* Chlorambucil

bis(2-chloroethyl)sulfide *see* Mustard Gas

4,4'-bis(dimethylamino)benzophenone *see* Michler's Ketone

bis(2-ethylhexyl) ester 1,2-benzenedicarboxylic acid *see* Di(2-ethylhexyl) Phthalate

bis(2-ethylhexyl phthalate) *see* Di(2-ethylhexyl) Phthalate

3,3-bis(4-hydroxyphenyl)-1-(3*H*)-isobenzofuranone *see* Phenolphthalein

broad-spectrum ultraviolet radiation *see* Ultraviolet Radiation Related Exposures

bromochloroacetic acid *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)

bromodichloroacetic acid *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)

bromoethene *see* Vinyl Halides (Selected), Vinyl Bromide

bromiodoacetic acid *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)

busulfan *see* 1,4-Butanediol Dimethanesulfonate

Busulfex *see* 1,4-Butanediol Dimethanesulfonate

1,3-butadiene diepoxide *see* Diepoxybutane

butane diepoxide *see* Diepoxybutane

1,4-butanediol dimethanesulphonate *see* 1,4-Butanediol Dimethanesulfonate

butter yellow *see* 4-Dimethylaminoazobenzene

C

CAA *see* Arsenic and Inorganic Arsenic Compounds and Chromium Hexavalent Compounds

CCNU *see* Nitrosourea Chemotherapeutic Agents, 1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea

Cd *see* Cadmium and Cadmium Compounds

CEP *see* Epichlorohydrin

C.I. 42500 *see* Basic Red 9 Monohydrochloride

C.I. 64500 *see* Disperse Blue 1

C.I. acid red 114 *see* 3,3'-Dimethylbenzidine and Dyes Metabolized to 3,3'-Dimethylbenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

C.I. basic red monohydrochloride *see* Basic Red 9 Monohydrochloride

C.I. direct black 38 *see* Benzidine and Dyes Metabolized to Benzidine, Dyes Metabolized to Benzidine

C.I. direct blue 1 *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

C.I. direct blue 2 *see* Benzidine and Dyes Metabolized to Benzidine, Dyes Metabolized to Benzidine

C.I. direct blue 6 *see* Benzidine and Dyes Metabolized to Benzidine, Dyes Metabolized to Benzidine

C.I. direct blue 8 *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

C.I. direct blue 14 *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

C.I. direct blue 15 *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

C.I. direct blue 76 *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

C.I. direct blue 98 *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

C.I. direct blue 218 *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

C.I. direct brown 2 *see* Benzidine and Dyes Metabolized to Benzidine, Dyes Metabolized to Benzidine

C.I. direct brown 95 *see* Benzidine and Dyes Metabolized to Benzidine, Dyes Metabolized to Benzidine

C.I. direct green *see* Benzidine and Dyes Metabolized to Benzidine, Dyes Metabolized to Benzidine

C.I. direct red 28 *see* Benzidine and Dyes Metabolized to Benzidine, Dyes Metabolized to Benzidine

C.I. disperse blue 1 *see* Disperse Blue 1

C.I. pigment orange 16 *see* *o*-Aminoazotoluene

C.I. solvent yellow 3 *see* *o*-Aminoazotoluene

CMME *see* Bis(chloromethyl) Ether and Technical-Grade Chloromethyl Methyl Ether

Co *see* Cobalt-Related Exposures, Cobalt and Cobalt Compounds That Release Cobalt Ions *In Vivo*

Co/WC *see* Cobalt-Related Exposures, Cobalt-Tungsten Carbide: Powders and Hard Metals

calcium arsenate *see* Arsenic and Inorganic Arsenic Compounds

calcium arsenite *see* Arsenic and Inorganic Arsenic Compounds

calcium chromate *see* Chromium Hexavalent Compounds

campechlor *see* Toxaphene

carbamic acid ethyl ester *see* Urethane

carbamodithioic acid, diethyl-, 2-chloro-2-propenyl ester *see* Sulfallate

carbon cenospheres *see* Soots

carbonaceous xerogol particles *see* Soots

carmustine *see* Nitrosourea Chemotherapeutic Agents, Bis(chloroethyl) Nitrosourea

cemented carbides *see* Cobalt-Related Exposures, Cobalt–Tungsten Carbide: Powders and Hard Metals

CertainTeed B glass fiber *see* Certain Glass Wool Fibers (Inhalable)

chewing tobacco *see* Tobacco-Related Exposures, Smokeless Tobacco

chinofer *see* Iron Dextran Complex

2-chlorallyl diethyldithiocarbamate *see* Sulfallate

chlordecone *see* Kepone

chlorethamine *see* Nitrogen Mustard Hydrochloride

chlorinated camphene *see* Toxaphene

4-chloro-1,2-benzenediamine *see* 4-Chloro-*o*-phenylenediamine

2-chloro-1,3-butadiene *see* Chloroprene

chlorocamphene *see* Toxaphene

2-chloro-*N*-(2-chloroethyl)-*N*-methylethanamine *see* Nitrogen Mustard Hydrochloride

chlorodibromoacetic acid *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)

1-chloro-2,3-dibromopropane *see* 1,2-Dibromo-3-chloropropane

3-chloro-1,2-dibromopropane *see* 1,2-Dibromo-3-chloropropane

chlorodiphenyls *see* Polychlorinated Biphenyls

1-chloro-2,3-epoxypropane *see* Epichlorohydrin

chloroethene *see* Vinyl Halides (Selected), Vinyl Chloride

1-(2-chloroethyl)-3-cyclohexyl-1-nitrosourea *see* Nitrosourea Chemotherapeutic Agents, 1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea

1-(2-chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea *see* Nitrosourea Chemotherapeutic Agents, 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea

2-(((2-chloroethyl)nitrosoamino)carbonyl)amino)-2-deoxy-*D*-glucose *see* Nitrosourea Chemotherapeutic Agents, Chlorozotocin

chloroiodoacetic acid *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)

chloromethyl methyl ether *see* Bis(chloromethyl) Ether and Technical-Grade Chloromethyl Methyl Ether

chloromethyl oxirane *see* Epichlorohydrin

4-chloro-2-methylaniline *see* *p*-Chloro-*o*-toluidine and Its Hydrochloride

4-chloro-2-methylbenzenamine *see* *p*-Chloro-*o*-toluidine and Its Hydrochloride

4-chloro-2-methylbenzenamine hydrochloride *see* *p*-Chloro-*o*-toluidine and Its Hydrochloride

1-chloro-2-methylpropene *see* Dimethylvinyl Chloride

1-chloro-2-methyl-1-propene *see* Dimethylvinyl Chloride

3-chloro-2-methyl-1-propene *see* 3-Chloro-2-methylpropene

4-chloro-1,2-phenylenediamine *see* 4-Chloro-*o*-phenylenediamine

4-chloro-*o*-toluidine *see* *p*-Chloro-*o*-toluidine and Its Hydrochloride

4-chloro-*o*-toluidine hydrochloride *see* *p*-Chloro-*o*-toluidine and Its Hydrochloride

chlorozotocin *see* Nitrosourea Chemotherapeutic Agents, Chlorozotocin

chromated copper arsenate (CCA) *see* Arsenic and Inorganic Arsenic Compounds and Chromium Hexavalent Compounds

chromates *see* Chromium Hexavalent Compounds

chromic trioxide *see* Chromium Hexavalent Compounds

chromium VI *see* Chromium Hexavalent Compounds

chrysazin *see* Danthron

chrysotile *see* Asbestos

ciclosporin *see* Cyclosporin A

cigarettes *see* Tobacco-Related Exposures, Tobacco Smoking

cigars *see* Tobacco-Related Exposures, Tobacco Smoking

***cis*-dichlorodiammine platinum (II)** *see* Cisplatin

***cis*-1,3-dichloropropene** *see* 1,3-Dichloropropene (Technical Grade)

Clophen A *see* Polychlorinated Biphenyls

Clophens *see* Polychlorinated Biphenyls

coal tar distillates *see* Coal Tars and Coal Tar Pitches

cobalt *see* Cobalt-Related Exposures, Cobalt and Cobalt Compounds That Release Cobalt Ions *In Vivo*

coke and char fragments *see* Soots

conjugated estrogens *see* Estrogens, Steroidal

copper-beryllium alloy *see* Beryllium and Beryllium Compounds

cristobalite *see* Silica, Crystalline (Respirable Size)

crocidolite *see* Asbestos

crystalline quartz *see* Silica, Crystalline (Respirable Size)

crystalline silica, respirable *see* Silica, Crystalline (Respirable Size)

crystalline silicon dioxide *see* Silica, Crystalline (Respirable Size)

(*R*-(*R,*R**(*E*)))**-cyclic(L-alanyl-D-alanyl-*N*-methyl-L-leucyl-*N*-methyl-L-leucyl-*N*-methyl-L-valyl-3-hydroxy-*N*,4-dimethyl-L-2-amino-6-octenoyl-L- α -aminobutyl-*N*-methylglycyl-*N*-methyl-L-leucyl-L-valyl-*N*-methyl-L-leucyl) *see* Cyclosporin A

cyclosporine *see* Cyclosporin A

D

DAAB *see* Diazoaminobenzene

DB[a,e]P *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Dibenzo[a,e]pyrene

DB[a,h]A *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Dibenzo[a,h]anthracene

DB[a,h]P *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Dibenzo[a,h]pyrene

DB[a,h]AC *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Dibenzo[a,h]acridine

DB[a,i]P *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Dibenzo[a,i]pyrene

DB[a,j]AC *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Dibenzo[a,j]acridine

DB[a,l]P *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Dibenzo[a,l]pyrene

DBCP *see* 1,2-Dibromo-3-chloropropane

DBP *see* 2,3-Dibromo-1-propanol

DDT *see* Dichlorodiphenyltrichloroethane

***o-o'*-DDT** *see* Dichlorodiphenyltrichloroethane

***o-p'*-DDT** *see* Dichlorodiphenyltrichloroethane

***p,p'*-DDT** *see* Dichlorodiphenyltrichloroethane

DEHP *see* Di(2-ethylhexyl) Phthalate

DEN *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosodiethylamine

DES *see* Diethylstilbestrol

DMN *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosodimethylamine

dantron *see* Danthron

decabromobiphenyl *see* Polybrominated Biphenyls

1,1a,3,3a,4,5,5a,5b,6-decachlorooctahydro-1,3,4-metheno-2H-cyclobuta[cd]pentalen-2-one *see* Kepone

2-deoxy-2((methyl-nitrosoamino)carbonyl)amino)-D-glucopyranose *see* Nitrosourea Chemotherapeutic Agents, Streptozotocin

dextran iron complex *see* Iron Dextran Complex

4,4'-diaminobiphenyl *see* Benzidine

4,4'-diaminodiphenyl ether *see* 4,4'-Oxydianiline

diaminodiphenyl ether *see* 4,4'-Oxydianiline

4,4'-diaminodiphenyl sulfide *see* 4,4'-Thiodianiline

4,4'-diaminodiphenylmethane *see* 4,4'-Methylenedianiline and Its Dihydrochloride

o-dianisidine *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

diantimony trioxide *see* Antimony Trioxide

dibenz[*a,h*]acridine *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

dibenz[*a,j*]acridine *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

dibenz[*a,h*]anthracene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

7H-dibenz[*c,g*]carbazole *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

dibenz[*b,c,e,f*]chrysene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Dibenzo[*a,h*]pyrene

dibenzo[*def,p*]chrysene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Dibenzo[*a,l*]pyrene

1,2,4,5-dibenzopyrene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Dibenzo[*a,e*]pyrene

3,4,9,10-dibenzopyrene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Dibenzo[*a,i*]pyrene

dibenzo[*a,e*]pyrene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

dibenzo[*a,h*]pyrene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

dibenzo[*a,i*]pyrene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

dibenzo[*a,l*]pyrene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

dibromoacetic acid *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)

2,4-dibromo-1-anthraquinonylamine *see* 1-Amino-2,4-dibromoanthraquinone

dibromoneopentyl glycol *see* 2,2-Bis(bromomethyl)-1,3-propanediol (Technical Grade)

2,3-dibromopropanol *see* 2,3-Dibromo-1-propanol

2,3-dibromopropan-1-ol *see* 2,3-Dibromo-1-propanol

2,3-dibromo-1-propanol phosphate (3:1) *see* Tris(2,3-dibromopropyl) Phosphate

dichloroacetic acid *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)

p-dichlorobenzene *see* 1,4-Dichlorobenzene

3,3'-dichloro-(1,1'-biphenyl)-4,4'-diamine *see* 3,3'-Dichlorobenzidine and Its Dihydrochloride

3,3'-dichloro-(1,1'-biphenyl)-4,4'-diamine dihydrochloride *see* 3,3'-Dichlorobenzidine and Its Dihydrochloride

dichlorobromomethane *see* Bromodichloromethane

2,2-dichloro-N-(2-hydroxy-1-(hydroxymethyl)-2-(4-nitrophenyl)ethyl)-, (R-(*R,*R**))-nitrophenyl]ethyl]acetamide** *see* Chloramphenicol

[R-(*R,*R**))-2,2-dichloro-N-[2-hydroxy-1-(hydroxymethyl)-2-(4-nitrophenyl)ethyl]acetamide** *see* Chloramphenicol

2,4-dichloro-1-(4-nitrophenoxy)benzene *see* Nitrofen

2,4-dichlorophenyl-p-nitrophenyl ether *see* Nitrofen

1,3-dichloro-1-propene *see* 1,3-Dichloropropene (Technical Grade)

(E)-1,3-dichloropropene *see* 1,3-Dichloropropene (Technical Grade)

(Z)-1,3-dichloropropene *see* 1,3-Dichloropropene (Technical Grade)

dichromates *see* Chromium Hexavalent Compounds

1,2,3,4-diepoxybutane *see* Diepoxybutane

diethyl ester sulfuric acid *see* Diethyl Sulfate

diethyl sulphate *see* Diethyl Sulfate

(E)-4,4'-(1,2-diethyl-1,2-ethenediyl)bisphenol *see* Diethylstilbestrol

diethylhexyl phthalate *see* Di(2-ethylhexyl) Phthalate

diethylnitrosamine *see* N-Nitrosamines: 15 Listings, N-Nitrosodiethylamine

Diethylstilboestrol *see* Diethylstilbestrol

Difolatan *see* Captafol

2,3-dihydro-6-propyl-2-thioxo-4(1H)-pyrimidinone *see* Propylthiouracil

1,8-dihydroxyanthraquinone *see* Danthron

diiodoacetic acid *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)

1,3-diisocyanatomethylbenzene *see* Toluene Diisocyanates

Dilantin *see* Phenytoin and Phenytoin Sodium

3,3'-dimethoxybenzidine dye class *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

dimethyl ester sulfuric acid *see* Dimethyl Sulfate

p-dimethylaminoazobenzene *see* 4-Dimethylaminoazobenzene

para-dimethylaminoazobenzene *see* 4-Dimethylaminoazobenzene

4,4'-(dimethylamino)benzophenone *see* Michler's Ketone

3,3'-dimethylbenzidine dye class *see* 3,3'-Dimethylbenzidine and Dyes Metabolized to 3,3'-Dimethylbenzidine, Dyes Metabolized to 3,3'-Dimethylbenzidine

dimethylcarbamic chloride *see* Dimethylcarbamoyl Chloride

(1,1-dimethylethyl)-4-methoxyphenol *see* Butylated Hydroxyanisole

3,4-dimethyl-3H-imidazo[4,5-f]quinolin-2-amine *see* Heterocyclic Amines (Selected), 2-Amino-3,4-dimethylimidazo[4,5-f]quinoline (MeIQ)

3,8-dimethyl-3H-imidazo[4,5-f]quinoxalin-2-amine *see* Heterocyclic Amines (Selected), 2-Amino-3,8-dimethylimidazo[4,5-f]quinoxaline (MeIQx)

dimethylnitrosamine *see* N-Nitrosamines: 15 Listings, N-Nitrosodimethylamine

5-(3,3-dimethyl-1-triazenyl)1H-imidazole-4-carboxamide *see* Dacarbazine

1,6-dinitropyrene *see* Nitroarenes (Selected)

1,8-dinitropyrene *see* Nitroarenes (Selected)

dioctyl phthalate *see* Di(2-ethylhexyl) Phthalate

di-sec-octyl phthalate *see* Di(2-ethylhexyl) Phthalate

dioxin *see* 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin

diphenylan *see* Phenytoin and Phenytoin Sodium

(Z)-2-[4-(1,2-diphenyl-1-butenyl)phenoxy]-N,N-dimethylethanamine *see* Tamoxifen

diphenylhydantoin *see* Phenytoin and Phenytoin Sodium

5,5-diphenylhydantoin *see* Phenytoin and Phenytoin Sodium

1,2-diphenylhydrazine *see* Hydrazobenzene

5,5-diphenyl-2,4-imidazolidinedione *see* Phenytoin and Phenytoin Sodium

1,3-diphenyltriazene *see* Diazoaminobenzene

direct black 38 (C.I.) *see* Benzidine and Dyes Metabolized to Benzidine, Dyes Metabolized to Benzidine

direct blue 1 (C.I.) *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

direct blue 2 (C.I.) *see* Benzidine and Dyes Metabolized to Benzidine

direct blue 6 (C.I.) *see* Benzidine and Dyes Metabolized to Benzidine, Dyes Metabolized to Benzidine

direct blue 8 (C.I.) *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

direct blue 14 (C.I.) *see* 3,3'-Dimethylbenzidine and Dyes Metabolized to 3,3'-Dimethylbenzidine, Dyes Metabolized to 3,3'-Dimethylbenzidine

direct blue 15 (C.I.) *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

direct blue 76 (C.I.) *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

direct blue 98 (C.I.) *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

direct blue 218 (C.I.) *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

direct brown 2 (C.I.) *see* Benzidine and Dyes Metabolized to Benzidine, Dyes Metabolized to Benzidine

direct brown 95 (C.I.) *see* Benzidine and Dyes Metabolized to Benzidine, Dyes Metabolized to Benzidine

direct green 6 (C.I.) *see* Benzidine and Dyes Metabolized to Benzidine, Dyes Metabolized to Benzidine

direct red 28 (C.I.) *see* Benzidine and Dyes Metabolized to Benzidine, Dyes Metabolized to Benzidine

disodium hydrogen arsenate *see* Arsenic and Inorganic Arsenic Compounds

1,1a,2,2,3,3a,4,5,5a,5b,6-dodecachlorooctahydro-1,3,4-methenolH-cyclobuta(cd)pentallene *see* Mirex

Dowicide EC-7 *see* Pentachlorophenol and By-products of Its Synthesis

doxorubicin hydrochloride *see* Adriamycin

dyes metabolized to benzidine *see* Benzidine and Dyes Metabolized to Benzidine, Dyes Metabolized to Benzidine

dyes metabolized to 3,3'-dimethoxybenzidine *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

dyes metabolized to 3,3'-dimethylbenzidine *see* 3,3'-Dimethylbenzidine and Dyes Metabolized to 3,3'-Dimethylbenzidine, Dyes Metabolized to 3,3'-Dimethylbenzidine

E

EBV *see* Viruses (Selected), Epstein-Barr Virus

EDB *see* 1,2-Dibromoethane

ENU *see* N-Nitrosamines: 15 Listings, N-Nitroso-N-ethylurea

ETS *see* Tobacco-Related Exposures, Environmental Tobacco Smoke

ETU *see* Ethylene Thiourea

E-glass fibers *see* Certain Glass Wool Fibers (Inhalable)

environmental tobacco smoke *see* Tobacco-Related Exposures

1,2-epoxyethylbenzene *see* Styrene-7,8-oxide

1-epoxyethyl-3,4-epoxycyclohexane *see* 4-Vinyl-1-cyclohexene Diepoxide

estradiol *see* Estrogens, Steroidal

estrogen hormone replacement therapy *see* Estrogens, Steroidal

estrone *see* Estrogens, Steroidal

ethanal *see* Acetaldehyde

ethanol *see* Alcoholic Beverage Consumption

ethinylestradiol *see* Estrogens, Steroidal

ethyl aldehyde *see* Acetaldehyde

ethyl carbamate *see* Urethane

ethyl methanesulphonate *see* Ethylmethanesulfonate

ethylene dibromide *see* 1,2-Dibromoethane

ethylene dichloride *see* 1,2-Dichloroethane

ethylenethiourea *see* Ethylene Thiourea

1-ethyl-1-nitroso-urea *see* N-Nitrosamines: 15 Listings, N-Nitroso-N-ethylurea

eugenol methyl ether *see* Methyleugenol

F

FF-1 *see* Polybrominated Biphenyls

fast garnet GBC base *see* o-Aminoazotoluene

ferrochromium *see* Chromium Hexavalent Compounds

FG insulation fiberglass *see* Certain Glass Wool Fibers (Inhalable)

FireMaster BP-6 *see* Polybrominated Biphenyls

FireMaster FF1 *see* Polybrominated Biphenyls

Firemaster t 23 *see* Tris(2,3-dibromopropyl) Phosphate

flavatoxin *see* Aflatoxins

2-fluorenylacetylamine *see* 2-Acetylaminofluorene

fluoroethene *see* Vinyl Halides (Selected), Vinyl Fluoride

formalin *see* Formaldehyde

Fosphenytoin *see* Phenytoin and Phenytoin Sodium

G

gamma radiation *see* Ionizing Radiation, X-Radiation and Gamma Radiation

gamma-hexachlorocyclohexane *see* Lindane, Hexachlorocyclohexane (Technical Grade), and Other Hexachlorocyclohexane Isomers

glass code 104 *see* Certain Glass Wool Fibers (Inhalable)

glass code 108b *see* Certain Glass Wool Fibers (Inhalable)

glass code 110 *see* Certain Glass Wool Fibers (Inhalable)

glass wool fiber B *see* Certain Glass Wool Fibers (Inhalable)

glass wool fiber P *see* Certain Glass Wool Fibers (Inhalable)

glass wool fiber V *see* Certain Glass Wool Fibers (Inhalable)

glycidaldehyde *see* Glycidol

H

HAAs *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)

HBV *see* Viruses (Selected), Hepatitis B Virus

HCAs *see* Heterocyclic Amines (Selected)

HCH *see* Lindane, Hexachlorocyclohexane (Technical Grade), and Other Hexachlorocyclohexane Isomers

HCV *see* Viruses (Selected), Hepatitis C Virus

HHV-4 *see* Viruses (Selected), Epstein-Barr Virus

HHV-8 *see* Viruses (Selected), Kaposi Sarcoma-Associated Herpesvirus

HIV-1 *see* Viruses (Selected), Human Immunodeficiency Virus Type 1

HMPA *see* Hexamethylphosphoramide

HPV *see* Human Papillomaviruses: Some Genital-Mucosal Types

H. pylori *see* *Helicobacter pylori* (chronic infection)

HTLV-1 *see* Viruses (Selected), Human T-Cell Lymphotropic Virus Type 1

7H-DB[c,g]C *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, 7H-Dibenzo[c,g]carbazole

7H-dibenzo[c,g]carbazole *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

hard metals *see* Cobalt-Related Exposures, Cobalt–Tungsten Carbide: Powders and Hard Metals

heptabromobiphenyls *see* Polybrominated Biphenyls

heptachlorobiphenyls *see* Polychlorinated Biphenyls

hexabromobiphenyls *see* Polybrominated Biphenyls

1,4,5,6,7,7-hexa-chlorobicyclo[2.2.1]hept-5-ene-2,3-dicarboxylic acid *see* Chlorendic Acid

hexachlorobiphenyls *see* Polychlorinated Biphenyls

hexachlorocyclohexane *see* Lindane, Hexachlorocyclohexane (Technical Grade), and Other Hexachlorocyclohexane Isomers

γ-hexachlorocyclohexane *see* Lindane, Hexachlorocyclohexane (Technical Grade), and Other Hexachlorocyclohexane Isomers

hexachlorocyclohexane isomers *see* Lindane, Hexachlorocyclohexane (Technical Grade), and Other Hexachlorocyclohexane Isomers

hexamethylphosphoric triamide *see* Hexamethylphosphoramide

hexavalent chromium compounds *see* Chromium Hexavalent Compounds

human herpesvirus 4 *see* Epstein-Barr Virus

human herpesvirus 8 *see* Kaposi Sarcoma-Associated Herpesvirus

14-hydroxydaunomycin *see* Adriamycin

17-hydroxy-2-(hydroxymethylene)-17-methyl-5α,17β-androstan-3-one *see* Oxymetholone

(17α)-17-hydroxy-19-norpregn-4-en-20-yn-3-one *see* Norethisterone

I

IP *see* Indeno[1,2,3-cd]pyrene

IQ *see* Heterocyclic Amines (Selected), 2-Amino-3-methylimidazo[4,5-f]quinoline

2-imidazolidinethione *see* Ethylene Thiourea

indeno[1,2,3-cd]pyrene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

Infed *see* Iron Dextran Complex

inorganic acid mists *see* Strong Inorganic Acid Mists Containing Sulfuric Acid

insulation glass fibers *see* Certain Glass Wool Fibers (Inhalable)

involuntary smoking *see* Tobacco-Related exposure, Environmental Tobacco Smoke

iron-carbohydrate complexes *see* Iron Dextran Complex

isocyanic acid *see* Toluene Diisocyanates

isopropylbenzene *see* Cumene

J

JM 104/475 glass fibers *see* Certain Glass Wool Fibers (Inhalable)

K

KSHV *see* Viruses (Selected), Kaposi Sarcoma–Associated Herpesvirus

Kanechlor 500 *see* Polychlorinated Biphenyls

L

lead acetate *see* Lead and Lead Compounds

lead arsenate *see* Arsenic and Inorganic Arsenic Compounds

lead chromates *see* Chromium Hexavalent Compounds and Lead and Lead Compounds

lead phosphate *see* Lead and Lead Compounds

lomustine *see* Nitrosourea Chemotherapeutic Agents, 1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea

lubricant base oils *see* Mineral Oils: Untreated and Mildly Treated

M

MBOCA *see* 4,4'-Methylenebis(2-chloroaniline)

5-MC *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, 5-Methylchrysene

MCpV *see* Viruses (Selected), Merkel Cell Polyomavirus

MCV *see* Viruses (Selected), Merkel Cell Polyomavirus

MeCCNU *see* Nitrosourea Chemotherapeutic Agents, 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea

MeIQ *see* Heterocyclic Amines (Selected), 2-Amino-3,4-dimethylimidazo[4,5-f]quinoline

MeIQx *see* Heterocyclic Amines (Selected), 2-Amino-3,8-dimethylimidazo-[4,5-f]quinoxaline

MMVF 33 glass fibers *see* Certain Glass Wool Fibers (Inhalable)

MMVF 10 *see* Certain Glass Wool Fibers (Inhalable)

MMVF 10a *see* Certain Glass Wool Fibers (Inhalable)

MMVF 11 *see* Certain Glass Wool Fibers (Inhalable)

MNNG *see* N-Nitrosamines: 15 Listings, N-Methyl-N'-nitro-N-nitrosoguanidine

MOCA *see* 4,4'-Methylenebis(2-chloroaniline)

MOPP *see* Nitrogen Mustard Hydrochloride and Procarbazine and Its Hydrochloride

MVNA *see* N-Nitrosamines: 15 Listings, N-Nitrosomethylvinylamine

magenta dye *see* Basic Red 9 Monohydrochloride

mainstream smoke *see* Tobacco-Related Exposures, Environmental Tobacco Smoke

man-made mineral fibers *see* Ceramic Fibers (Respirable Size) and Certain Glass Wool Fibers (Inhalable)

man-made vitreous fibers *see* Ceramic Fibers (Respirable Size)

Manville 901 glass fiber *see* Certain Glass Wool Fibers (Inhalable)

mechlorethamine *see* Nitrogen Mustard Hydrochloride

mechlorethamine hydrochloride *see* Nitrogen Mustard Hydrochloride

mestranol *see* Estrogens, Steroidal

metallic arsenic *see* Arsenic and Inorganic Arsenic Compounds

metallic nickel *see* Nickel Compounds and Metallic Nickel

methallyl chloride *see* 3-Chloro-2-methylpropene

2-methoxybenzenamine *see* o-Anisidine and Its Hydrochloride

4-methoxy-1,3-benzenediamine *see* 2,4-Diaminoanisole Sulfate

9-methoxy-7H-furo [3,2g] [1] benzopyran-7-one *see* Methoxsalen with Ultraviolet A Therapy

2-methoxy-5-methylbenzenamine *see* p-Cresidine

1-methoxy-2-nitrobenzene *see* o-Nitroanisole

4-methoxy-m-phenylenediamine sulfate *see* 2,4-Diaminoanisole Sulfate

8-methoxypsoralen *see* Methoxsalen with Ultraviolet A Therapy

methyl chloromethyl ether *see* Bis(chloromethyl) Ether and Technical-Grade Chloromethyl Methyl Ether

methyl ester methanesulfonic acid *see* Methyl Methanesulfonate

methyl eugenol *see* Methyleugenol

methyl 18 β -hydroxy-11,17 α -dimethoxy-3 β ,20 α -yohimban-16 β -carboxylate 3,4,5-trimethoxybenzoate (ester) *see* Reserpine

2-methylbenzenamine *see* *o*-Toluidine

4-methyl-1,3-benzenediamine *see* 2,4-Diaminotoluene

2-methyl-1,3-butadiene *see* Isoprene

methyl-CCNU *see* Nitrosourea Chemotherapeutic Agents, 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea

5-methylchrysene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

methylene-bis-*o*-chloroaniline *see* 4,4'-Methylenebis(2-chloroaniline)

3-methyl-3*H*-imidazo[4,5-*f*]quinolin-2-amine *see* Heterocyclic Amines (Selected), 2-Amino-3-methylimidazo[4,5-*f*]quinoline (IQ)

2-methyl-4-[(2-methylphenyl)azo]-benzenamine *see* *o*-Aminoazotoluene

2-methyl-5-nitro-1*H*-imidazole-1-ethanol *see* Metronidazole

6-[(1-methyl-4-nitro-1*H*-imidazol-5-yl)thio]-1*H*-purine *see* Azathioprine

1-methyl-3-nitro-1-nitrosoguanidine *see* *N*-Nitrosamines: 15 Listings, *N*-Methyl-*N'*-nitro-*N*-nitrosoguanidine

4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone *see* *N*-Nitrosamines: 15 Listings, 4-(*N*-Nitrosomethylamino)-1-(3-pyridyl)-1-butanone

2-methyloxirane *see* Propylene Oxide

methyl-*m*-phenylene ester *see* Toluene Diisocyanates

1-methyl-6-phenyl-1*H*-imidazo[4,5-*b*]pyridin-2-amine *see* Heterocyclic Amines (Selected), 2-Amino-1-methyl-6-phenylimidazo[4,5-*b*]pyridine (PhIP)

methylene chloride *see* Dichloromethane

4,4'-methylenebisbenzenamine *see* 4,4'-Methylenedianiline and Its Dihydrochloride

4,4'-methylenebisbenzenamine dihydrochloride *see* 4,4'-Methylenedianiline and Its Dihydrochloride

4,4'-methylenebis(2-chlorobenzenamine) *see* 4,4'-Methylenebis(2-chloroaniline)

methylenedianiline dihydrochloride *see* 4,4'-Methylenedianiline and Its Dihydrochloride

4,4'-methylenedianiline dihydrochloride *see* 4,4'-Methylenedianiline and Its Dihydrochloride

4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone *see* *N*-Nitrosamines: 15 Listings, 4-(*N*-Nitrosomethylamino)-1-(3-pyridyl)-1-butanone

methyloxirane *see* Propylene Oxide

Michler's base *see* 4,4'-Methylenebis(*N,N*-dimethyl)benzenamine

mildly treated mineral oils *see* Mineral Oils: Untreated and Mildly Treated

mists, strong inorganic acid *see* Strong Inorganic Acid Mists Containing Sulfuric Acid

monobromoacetic acid *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)

monochloroacetic acid *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)

monoiodoacetic acid *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)

Myleran *see* 1,4-Butanediol Dimethanesulfonate

N

NDEA *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosodiethylamine

NEU *see* *N*-Nitrosamines: 15 Listings, *N*-Nitroso-*N*-ethylurea

Ni *see* Nickel Compounds and Metallic Nickel

NMU *see* *N*-Nitrosamines: 15 Listings, *N*-Nitroso-*N*-methylurea

NNK *see* *N*-Nitrosamines: 15 Listings, 4-(*N*-Nitrosomethylamino)-1-(3-pyridyl)-1-butanone

NNN *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrososornicotine

***N*-butyl-*N*-nitroso-1-butamine** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosodi-*n*-butylamine

***N*-(2-chloroethyl)-*N'*-cyclohexyl-*N*-nitrosourea** *see* Nitrosourea Chemotherapeutic Agents, 1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea

***N*-dibutylnitrosoamine** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosodi-*n*-butylamine

***N*-(4-ethoxyphenyl)acetamide** *see* Phenacetin and Analgesic Mixtures Containing Phenacetin

***N*-ethyl-*N*-nitroso-ethanamine** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosodiethylamine

***N*-ethyl-*N*-nitrosourea** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitroso-*N*-ethylurea

***N*-2-fluorenylacetamide** *see* 2-Acetylaminofluorene

***N*-fluoren-2-yl-acetamide** *see* 2-Acetylaminofluorene

***N*-methyl-*N'*-nitro-*N*-nitrosoguanidine** *see* *N*-Nitrosamines: 15 Listings, *N*-Methyl-*N'*-nitro-*N*-nitrosoguanidine

***N*-methyl-*N*-nitroso-ethenylamine** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosomethylvinylamine

***N*-methyl-*N*-nitroso-glycine** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrososarcosine

***N*-methyl-*N*-nitrosomethanamine** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosodimethylamine

***N*-methyl-*N*-nitrosourea** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitroso-*N*-methylurea

***N*-(1-methylethyl)-4-[(2-methylhydrazino)methyl]-benzamide monohydrochloride** *see* Procarbazine and Its Hydrochloride

***N*-methylvinylnitrosamine** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosomethylvinylamine

***N,N*-bis(carboxymethyl)glycine** *see* Nitritotriacetic Acid

***N,N'*-bis(2-chloroethyl)-*N*-nitrosourea** *see* Nitrosourea Chemotherapeutic Agents, Bis(chloroethyl) Nitrosourea

***N,N*-bis(2-chloroethyl)tetrahydro-2*H*-1,3,2-oxaphosphorin-2-amine, 2-oxide monohydrate** *see* Cyclophosphamide

***N,N*-dibutylnitrosoamine** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosodi-*n*-butylamine

***N,N*-diethyldithiocarbamic acid 2-chloroallyl ester** *see* Sulfallate

***N,N*-dimethyl-4-aminoazobenzene** *see* 4-Dimethylaminoazobenzene

***N,N*-dimethyl-4-(phenylazo)-benzenamine** *see* 4-Dimethylaminoazobenzene

***N*-nitrosodi-*n*-butylamine** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosodi-*n*-butylamine

***N*-nitrosodiethanolamine** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosodiethanolamine

***N*-nitrosodiethylamine** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosodiethylamine

***N*-nitrosodimethylamine** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosodimethylamine

***N*-nitrosodipropylamine** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosodi-*n*-propylamine

***N*-nitrosodipropylamine** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosodi-*n*-propylamine

***N*-nitrosodi-*n*-propylamine** *see* *N*-Nitrosamines: 15 Listings, *N*-Nitrosodi-*n*-propylamine

N-nitrosoethylurea *see* N-Nitrosamines: 15 Listings, N-Nitroso-N-ethylurea

N-nitroso-N-ethylurea *see* N-Nitrosamines: 15 Listings, N-Nitroso-N-ethylurea

4-(N-nitrosomethylamino)-1-(3-pyridyl)-1-butanone *see* N-Nitrosamines: 15 Listings, 4-(N-nitrosomethylamino)-1-(3-pyridyl)-1-butanone

N-nitroso-N-methylglycine *see* N-Nitrosamines: 15 Listings, N-Nitrososarcosine

N-nitrosomethylurea *see* N-Nitrosamines: 15 Listings, N-Nitroso-N-methylurea

N-nitroso-N-methylurea *see* N-Nitrosamines: 15 Listings, N-Nitroso-N-methylurea

N-nitrosomethylvinylamine *see* N-Nitrosamines: 15 Listings, N-Nitrosomethylvinylamine

N-nitrosomorpholine *see* N-Nitrosamines: 15 Listings, N-Nitrosomorpholine

N-nitrososarcosine *see* N-Nitrosamines: 15 Listings, N-Nitrososarcosine

N-nitrosopiperidine *see* N-Nitrosamines: 15 Listings, N-Nitrosopiperidine

N-nitroso-N-propyl-1-propanamine *see* N-Nitrosamines: 15 Listings, N-Nitrosodi-*n*-propylamine

N-nitrosopyrrolidine *see* N-Nitrosamines: 15 Listings, N-Nitrosopyrrolidine

N-nitrososarcosine *see* N-Nitrosamines: 15 Listings, N-Nitrososarcosine

***n*-propyl bromide** *see* 1-Bromopropane

6-*n*-propylthiouracil *see* Propylthiouracil

naphtho(1,2,3,4-*def*)chrysene *see* Polycyclic Aromatic Hydrocarbons: 15 Listings, Dibenzo[*a,e*]pyrene

β -naphthylamine *see* 2-Naphthylamine

beta-naphthylamine *see* 2-Naphthylamine

neutrons *see* Ionizing Radiation

nickelocene *see* Nickel Compounds and Metallic Nickel

niclofen *see* Nitrofen

2-nitroanisole *see* *o*-Nitroanisole

nitrochlor *see* Nitrofen

6-nitrochrysene *see* Nitroarenes (Selected)

nitrogen mustard *see* Nitrogen Mustard Hydrochloride

nitropyrene *see* Nitroarenes (Selected)

1-nitropyrene *see* Nitroarenes (Selected)

4-nitropyrene *see* Nitroarenes (Selected)

nitrosodibutylamine *see* N-Nitrosamines: 15 Listings, N-Nitrosodi-*n*-butylamine

2,2'-(nitrosoimino)bis[ethanol] *see* N-Nitrosamines: 15 Listings, N-Nitrosodiethanolamine

4-nitrosomorpholine *see* N-Nitrosamines: 15 Listings, N-Nitrosomorpholine

1-nitroso-piperidine *see* N-Nitrosamines: 15 Listings, N-Nitrosopiperidine

1-nitrosopyrrolidine *see* N-Nitrosamines: 15 Listings, N-Nitrosopyrrolidine

3-(1-nitroso-2-pyrrolidinyl)pyridine *see* N-Nitrosamines: 15 Listings, N-Nitrososarcosine

2-nitrotoluene *see* *o*-Nitrotoluene

norethindrone *see* Norethisterone

O

***o*-aminoanisole** *see* *o*-Anisidine and Its Hydrochloride

***o*-dianisidine** *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine, Dyes Metabolized to 3,3'-Dimethoxybenzidine

***o-o'*-DDT** *see* Dichlorodiphenyltrichloroethane

***o-p'*-DDT** *see* Dichlorodiphenyltrichloroethane

***o*-tolidine** *see* 3,3'-Dimethylbenzidine and Dyes Metabolized to 3,3'-Dimethylbenzidine, Dyes Metabolized to 3,3'-Dimethylbenzidine

octabromobiphenyl *see* Polybrominated Biphenyls

Oleum *see* Strong Inorganic Acid Mists Containing Sulfuric Acid

orthoarsenic acid *see* Arsenic and Inorganic Compounds

Owens-Corning FG insulation fiberglass with binder *see* Certain Glass Wool Fibers (Inhalable)

Owens-Corning FM series air filter media *see* Certain Glass Wool Fibers (Inhalable)

Owens-Corning glass wool *see* Certain Glass Wool Fibers (Inhalable)

1,2-oxathiolane, 2,2-dioxide *see* 1,3-Propane Sultone

2-oxetanone *see* β -Propiolactone

oxirane *see* Ethylene Oxide

oxiranemethanol *see* Glycidol

3-oxiranyl-7-oxabicyclo[4.1.0]heptane *see* 4-Vinyl-1-cyclohexene Diepoxide

4,4'-oxybisbenzenamine *see* 4,4'-Oxydianiline

P

PAHs *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

Pb *see* lead

PBBs *see* Polybrominated Biphenyls

PCBs *see* Polychlorinated Biphenyls

PCDD *see* 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin

PCP *see* Pentachlorophenol and By-products of Its Synthesis

PhIP *see* Heterocyclic Amines (Selected), 2-Amino-1-methyl-6-phenylimidazo-[4,5-*b*]pyridine

PROP *see* Propylthiouracil

PUVA *see* Methoxsalen with Ultraviolet A Therapy

***p*-aminobiphenyl** *see* 4-Aminobiphenyl

***p*-aminodiphenyl** *see* 4-Aminobiphenyl

***p*-dichlorobenzene** *see* 1,4-Dichlorobenzene

***p*-dimethylaminoazobenzene** *see* 4-Dimethylaminoazobenzene

***p*-rosaniline hydrochloride** *see* Basic Red 9 Monohydrochloride

***p,p'*-DDT** *see* Dichlorodiphenyltrichloroethane

***p,p'*-tetramethyldiaminodiphenylmethane** *see* 4,4'-Methylenebis(*N,N*-dimethyl)benzenamine

***para*-aminodiphenyl** *see* 4-Aminobiphenyl

***para*-dimethylaminoazobenzene** *see* 4-Dimethylaminoazobenzene

paraffins, chlorinated *see* Chlorinated Paraffins

paraformaldehyde *see* Formaldehyde

pararosanine hydrochloride *see* Basic Red 9 Monohydrochloride

passive smoke *see* Tobacco-Related Exposures, Environmental Tobacco Smoke

pentabromobiphenyl *see* Polybrominated Biphenyls

pentachlorobiphenyl *see* Polychlorinated Biphenyls

perc *see* Tetrachloroethylene

perchloroethylene *see* Tetrachloroethylene

petroleum *see* Mineral Oils: Untreated and Mildly Treated

1-phenylalanine, *N*-[(5-chloro-3,4-dihydro-8-hydroxy-3-methyl-1-oxo-1*H*-2-benzopyran-7-yl)-carbonyl]-, (*R*)- *see* Ochratoxin A

3-phenylazo-2,6-diaminopyridine hydrochloride *see* Phenazopyridine Hydrochloride

3-(phenylazo)-2,6-pyridinediamine monohydrochloride *see* Phenazopyridine Hydrochloride

2,2'-[phenylenebis(oxyethylene)]bisoxirane *see* Diglycidyl Resorcinol Ether

phenyloxirane *see* Styrene-7,8-oxide

1,1',1''-phosphinothioylidynetrisaziridine *see* Thiotepa

phthalate esters *see* Di(2-ethylhexyl) Phthalate

pigment orange 16 (C.I.) *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine

pipe smoking *see* Tobacco-Related Exposures

piperazine estrone sulfate *see* Estrogens, Steroidal

platinum *see* Cisplatin

polychlorinated camphenes *see* Toxaphene

polychlorocamphene *see* Toxaphene

polychlorophenols *see* 2,4,6-Trichlorophenol

polynuclear aromatic hydrocarbons *see* Polycyclic Aromatic Hydrocarbons: 15 Listings

potassium arsenate *see* Arsenic and Inorganic Arsenic Compounds

potassium arsenite *see* Arsenic and Inorganic Arsenic Compounds

potassium chromate *see* Chromium Hexavalent Compounds

potassium dichromate *see* Chromium Hexavalent Compounds

pregn-4-ene-3,20-dione *see* Progesterone

progesterin *see* Progesterone

propane sultone *see* 1,3-Propane Sultone

2-propenamide *see* Acrylamide

2-propenenitrile *see* Acrylonitrile

5-(2-propenyl)-1,3-benzodioxole *see* Safrole

***n*-propyl bromide** *see* 1-Bromopropane

6-propyl-2-thiouracil *see* Propylthiouracil

6-*n*-propylthiouracil *see* Propylthiouracil

propylenimine *see* 2-Methylaziridine

psoralen *see* Methoxsalen with Ultraviolet A Therapy

pyridium *see* Phenazopyridine Hydrochloride

Q

quartz *see* Silica, Crystalline (Respirable Size)

R

Rn *see* Ionizing Radiation, Radon

radon *see* Ionizing Radiation, Radon

refractory ceramic fibers *see* Ceramic Fibers (Respirable Size)

resorcinol diglycidyl ether *see* Diglycidyl Resorcinol Ether

respirable crystalline silica *see* Silica, Crystalline (Respirable Size)

***p*-rosaniline hydrochloride** *see* Basic Red 9 Monohydrochloride

S

SCCP *see* Chlorinated Paraffins

sawdust *see* Wood Dust

Schleicher and Schuell (S&S 106) glass wool fibers *see* Certain Glass Wool Fibers (Inhalable)

secondhand smoke *see* Tobacco-Related Exposures, Environmental Tobacco Smoke

Selsun *see* Selenium Sulfide

semustine *see* Nitrosourea Chemotherapeutic Agents, 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea

short-chain chlorinated paraffins *see* Chlorinated Paraffins

sidestream smoke *see* Tobacco-Related Exposures, Environmental Tobacco Smoke

sintered carbides *see* Cobalt-Related Exposures, Cobalt-Tungsten Carbide: Powders and Hard Metals

smokeless tobacco *see* Tobacco-Related Exposures

snuff *see* Tobacco-Related Exposures, Smokeless Tobacco

sodium arsenate *see* Arsenic and Inorganic Arsenic Compounds

sodium arsenite *see* Arsenic and Inorganic Arsenic Compounds

sodium chromate *see* Chromium Hexavalent Compounds

sodium dichromate *see* Chromium Hexavalent Compounds

sodium equilin sulfate *see* Estrogens, Steroidal

sodium estrone sulfate *see* Estrogens, Steroidal

solar radiation *see* Ultraviolet Radiation Related Exposures

solvent yellow 3 (C.I.) *see* *o*-Aminoazotoluene

special-purpose glass fibers *see* Certain Glass Wool Fibers (Inhalable)

spirits *see* Alcoholic Beverage Consumption

steroidal estrogens *see* Estrogens, Steroidal

stilbestrol *see* Diethylstilbestrol

streptozotocin *see* Nitrosourea Chemotherapeutic Agents, Streptozotocin

strontium chromate *see* Chromium Hexavalent Compounds

styrene oxide *see* Styrene-7,8-oxide

sulfur mustard *see* Mustard Gas

sulfuric acid *see* Strong Inorganic Acid Mists Containing Sulfuric Acid

sunbeds *see* Ultraviolet Radiation Related Exposures, Sunlamps or Sunbeds, Exposure to

sunlamps *see* Ultraviolet Radiation Related Exposures

synthetic mineral fibers *see* Ceramic Fibers (Respirable Size) and Certain Glass Wool Fibers (Inhalable)

synthetic vitreous fibers *see* Certain Glass Wool Fibers (Inhalable)

T

TCDD *see* 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin

2,3,7,8-TCDD *see* 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin

TCE *see* Trichloroethylene

TDI *see* Toluene Diisocyanates

TEPA *see* Thiotepa

TFE *see* Tetrafluoroethylene

TRIS *see* Tris(2,3-dibromopropyl) Phosphate

Telone II *see* 1,3-Dichloropropene (Technical Grade)

Tempstran code 100/475 glass fibers *see* Certain Glass Wool Fibers (Inhalable)

2-*tert*-butyl-4-hydroxyanisole (2-BHA) *see* Butylated Hydroxyanisole

3-*tert*-butyl-4-hydroxyanisole (3-BHA) *see* Butylated Hydroxyanisole

1,4,5,8-tetraaminoanthraquinone *see* Disperse Blue 1

tetrachlorobiphenyl *see* Polychlorinated Biphenyls

tetrachloroethene *see* Tetrachloroethylene

tetrachloromethane *see* Carbon Tetrachloride

tetraethyl lead *see* Lead and Lead Compounds

tetrafluoroethene *see* Tetrafluoroethylene
tetramethyl lead *see* Lead and Lead Compounds
***p,p'*-tetramethyldiaminodiphenylmethane** *see* 4,4'-Methylenebis(*N,N*-Dimethyl)benzenamine
4,4'-thiobisbenzenamine *see* 4,4'-Thiodianiline
1,1'-thiobis(2-chloroethane) *see* Mustard Gas
thiodianiline *see* 4,4'-Thiodianiline
thorium dioxide *see* Ionizing Radiation
thorium oxide *see* Ionizing Radiation, Thorium Dioxide
thoron *see* Ionizing Radiation, Radon
Thorotrast *see* Ionizing Radiation, Thorium Dioxide
tobacco smoking *see* Tobacco-Related Exposures
***o*-tolidine** *see* 3,3'-Dimethylbenzidine and Dyes Metabolized to 3,3'-Dimethylbenzidine, Dyes Metabolized to 3,3'-Dimethylbenzidine
2,4-toluene diisocyanate *see* Toluene Diisocyanates
2,6-toluene diisocyanate *see* Toluene Diisocyanates
toluenediamine *see* 2,4-Diaminotoluene
tolylene diisocyanate *see* Toluene Diisocyanates
***trans*-1,3-dichloropropene** *see* 1,3-Dichloropropene (Technical Grade)
tremolite *see* Asbestos
tribromoacetic acid *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)
trichloroacetic acid *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)
1,1,1-trichloro-2,2-bis(*p*-chlorophenyl) ethane *see* Dichlorodiphenyltrichloroethane
trichloroethene *see* Trichloroethylene
1,1,2-trichloroethene *see* Trichloroethylene
trichloromethane *see* Chloroform
1-(trichloromethyl)benzene *see* Benzotrichloride
 α,α,α -trichlorotoluene *see* Benzotrichloride
tridymite *see* Silica, Crystalline (Respirable Size)
triethylenethiophosphoramidate *see* Thiotepa
trimethylene methanesulfonate *see* 1,4-Butanediol Dimethanesulfonate
trioxane *see* Formaldehyde
tris(1-aziridinyl)phosphine sulfide *see* Thiotepa
trypan blue *see* 3,3'-Dimethylbenzidine and Dyes Metabolized to 3,3'-Dimethylbenzidine, Dyes Metabolized to 3,3'-Dimethylbenzidine
tungsten carbides *see* Cobalt-Related Exposures, Cobalt–Tungsten Carbide: Powders and Hard Metals

U

UMDH *see* 1,1-Dimethylhydrazine
UVA *see* Ultraviolet Radiation Related Exposures
UVB *see* Ultraviolet Radiation Related Exposures
UVC *see* Ultraviolet Radiation Related Exposures
UVR *see* Ultraviolet Radiation Related Exposures
unsymmetrical dimethylhydrazine *see* 1,1-Dimethylhydrazine
untreated mineral oils *see* Mineral Oils: Untreated and Mildly Treated
urethan *see* Urethane

V

Vidaza *see* Azacitidine
vinyl bromide *see* Vinyl Halides (Selected), Vinyl Bromide
vinyl chloride *see* Vinyl Halides (Selected), Vinyl Chloride
4-vinylcyclohexene diepoxide *see* 4-Vinyl-1-cyclohexene Diepoxide
vinylcyclohexene dioxide *see* 4-Vinyl-1-cyclohexene Diepoxide
vinyl fluoride *see* Vinyl Halides (Selected), Vinyl Fluoride
vitreous fibers *see* Certain Glass Wool Fibers (Inhalable)

W

WC/Co *see* Cobalt-Related Exposures, Cobalt–Tungsten Carbide: Powders and Hard Metals
wine *see* Alcoholic Beverage Consumption

X

xanthotoxin *see* Methoxsalen with Ultraviolet A Therapy
X-radiation *see* Ionizing Radiation
X-rays *see* Ionizing Radiation, X-Radiation and Gamma Radiation

Y

yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3 β ,16 β ,17 α ,18 β ,20 α)- *see* Reserpine

Z

(Z)-1,3-dichloropropene *see* 1,3-Dichloropropene (Technical Grade)
(Z)-2-[4-(1,2-diphenylbut-1-enyl)phenoxy]-*N,N*-dimethylethanamine *see* Tamoxifen
Zanosar *see* Streptozocin
zeolites *see* Erionite
zinc beryllium silicate *see* Beryllium and Beryllium Compounds
zinc chromates *see* Chromium Hexavalent Compounds
zinc yellow *see* Chromium Hexavalent Compounds

Appendix G: Listed Substances by CAS Number

Appendix G is a list of Chemical Abstracts Service Registry Numbers (CAS numbers) of listed substances for which a CAS number is available. For listings of structurally related chemicals, the list of CAS numbers is not comprehensive for all the chemicals belonging to the class; it generally includes the CAS number of the major chemicals or metals that are highlighted in the profile.

50-00-0 *see* Formaldehyde
 50-18-0 *see* Cyclophosphamide
 50-28-2 (estradiol-17 β) *see* Estrogens, Steroidal
 50-29-3 *see* Dichlorodiphenyltrichloroethane
 50-32-8 (benzo[*a*]pyrene) *see* Polycyclic Aromatic Hydrocarbons: 15 Listings
 50-55-5 *see* Reserpine
 51-52-5 *see* Propylthiouracil
 51-79-6 *see* Urethane
 52-24-4 *see* Thiotepa
 53-16-7 (estrone) *see* Estrogens, Steroidal
 53-70-3 (dibenz[*a,h*]anthracene) *see* Polycyclic Aromatic Hydrocarbons: 15 Listings
 53-96-3 *see* 2-Acetylaminofluorene
 55-18-5 (*N*-Nitrosodiethylamine) *see* *N*-Nitrosamines: 15 Listings
 55-86-7 *see* Nitrogen Mustard Hydrochloride
 55-98-1 *see* 1,4-Butanediol Dimethanesulfonate
 56-23-5 *see* Carbon Tetrachloride
 56-53-1 *see* Diethylstilbestrol
 56-55-3 (benz[*a*]anthracene) *see* Polycyclic Aromatic Hydrocarbons: 15 Listings
 56-75-7 *see* Chloramphenicol
 57-14-7 *see* 1,1-Dimethylhydrazine
 57-41-0 (phenytoin) *see* Phenytoin and Phenytoin Sodium
 57-57-8 *see* β -Propiolactone
 57-63-6 (ethinylestradiol) *see* Estrogens, Steroidal
 57-83-0 *see* Progesterone
 58-89-9 (lindane, Hexachlorocyclohexane (Technical Grade), and Other Hexachlorocyclohexane Isomers)
 59-89-2 (*N*-nitrosomorpholine) *see* *N*-Nitrosamines: 15 Listings
 60-11-7 *see* 4-Dimethylaminoazobenzene
 61-82-5 *see* Amitrole
 62-44-2 (phenacetin) *see* Phenacetin and Analgesic Mixtures Containing Phenacetin
 62-50-0 *see* Ethylmethanesulfonate
 62-55-5 *see* Thioacetamide
 62-56-6 *see* Thiourea
 62-75-9 (*N*-nitrosodimethylamine) *see* *N*-Nitrosamines: 15 Listings
 63-92-3 *see* Phenoxybenzamine Hydrochloride
 64-67-5 *see* Diethyl Sulfate
 66-27-3 *see* Methyl Methanesulfonate
 67-66-3 *see* Chloroform
 67-72-1 *see* Hexachloroethane
 68-22-4 *see* Norethisterone
 70-25-7 (*N*-methyl-*N'*-nitro-*N*-nitrosoguanidine) *see* *N*-Nitrosamines: 15 Listings
 71-43-2 *see* Benzene
 71-48-7 (cobalt acetate) *see* Cobalt-Related Exposures
 72-33-3 (mestranol) *see* Estrogens, Steroidal
 75-01-4 (vinyl chloride) *see* Vinyl Halides (Selected)
 75-02-5 (vinyl fluoride) *see* Vinyl Halides (Selected)
 75-07-0 *see* Acetaldehyde
 75-09-2 *see* Dichloromethane
 75-21-8 *see* Ethylene Oxide
 75-27-4 *see* Bromodichloromethane
 75-52-5 *see* Nitromethane
 75-55-8 *see* 2-Methylaziridine
 75-56-9 *see* Propylene Oxide
 75-96-7 (tribromoacetic acid) *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)
 77-09-8 *see* Phenolphthalein
 77-78-1 *see* Dimethyl Sulfate

78-00-2 (tetraethyl lead) *see* Lead and Lead Compounds
 78-79-5 *see* Isoprene
 79-01-6 *see* Trichloroethylene
 79-06-1 *see* Acrylamide
 79-43-6 (dichloroacetic acid) *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)
 79-44-7 *see* Dimethylcarbamoyl Chloride
 79-46-9 *see* 2-Nitropropane
 81-49-2 *see* 1-Amino-2,4-dibromoanthraquinone
 82-28-0 *see* 1-Amino-2-methylantraquinone
 87-86-5 (pentachlorophenol) *see* Pentachlorophenol and By-products of Its Synthesis
 88-06-2 *see* 2,4,6-Trichlorophenol
 88-72-2 *see* *o*-Nitrotoluene
 90-04-0 (*o*-anisidine) *see* *o*-Anisidine and Its Hydrochloride
 90-94-8 *see* Michler's Ketone
 91-08-7 (2,6-toluene diisocyanate) *see* Toluene Diisocyanates
 91-20-3 *see* Naphthalene
 91-23-6 *see* *o*-Nitroanisole
 91-59-8 *see* 2-Naphthylamine
 91-94-1 (3,3'-dichlorobenzidine) *see* 3,3'-Dichlorobenzidine and Its Dihydrochloride
 92-67-1 *see* 4-Aminobiphenyl
 92-87-5 (benzidine) *see* Benzidine and Dyes Metabolized to Benzidine
 93-15-2 *see* Methyl Eugenol
 94-59-7 *see* Saffrole
 95-06-7 *see* Sulfallate
 95-53-4 (*o*-toluidine) *see* *o*-Toluidine and Its Hydrochloride
 95-69-2 (*p*-chloro-*o*-toluidine) *see* *p*-Chloro-*o*-toluidine and Its Hydrochloride
 95-80-7 *see* 2,4-Diaminotoluene
 95-83-0 *see* 4-Chloro-*o*-phenylenediamine
 96-09-3 *see* Styrene-7,8-oxide
 96-12-8 *see* 1,2-Dibromo-3-chloropropane
 96-13-9 *see* 2,3-Dibromo-1-propanol
 96-18-4 *see* 1,2,3-Trichloropropane
 96-45-7 *see* Ethylene Thiourea
 97-56-3 *see* *o*-Aminoazotoluene
 98-07-7 *see* Benzotrithloride
 98-82-8 *see* Cumene
 98-95-3 *see* Nitrobenzene
 100-42-5 *see* Styrene
 100-75-4 (*N*-nitrosopiperidine) *see* *N*-Nitrosamines: 15 Listings
 101-14-4 *see* 4,4'-Methylenebis(2-chloroaniline)
 101-61-1 *see* 4,4'-Methylenebis(*N,N*-dimethyl)benzeneamine
 101-77-9 (4,4'-methylenedianiline) *see* 4,4'-Methylenedianiline and its Dihydrochloride
 101-80-4 *see* 4,4'-Oxydianiline
 101-90-6 *see* Diglycidyl Resorcinol Ether
 106-46-7 *see* 1,4-Dichlorobenzene
 106-87-6 *see* 4-Vinyl-1-cyclohexene Diepoxide
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 119-90-4 (3,3'-dimethoxybenzidine) *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine
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- 123-91-1 *see* 1,4-Dioxane
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- 131-52-2 (pentachlorophenol, sodium salt) *see* Pentachlorophenol and By-products of Its Synthesis
- 134-29-2 (*o*-anisidine hydrochloride) *see* *o*-Anisidine and Its Hydrochloride
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- 302-01-2 (hydrazine) *see* Hydrazine and Hydrazine Sulfate
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- 313-67-7 (aristolochic acid I) *see* Aristolochic Acids
- 319-84-6 (α -hexachlorocyclohexane) *see* Lindane, Hexachlorocyclohexane (Technical Grade), and Other Hexachlorocyclohexane Isomers
- 319-85-7 (β -hexachlorocyclohexane) *see* Lindane, Hexachlorocyclohexane (Technical Grade), and Other Hexachlorocyclohexane Isomers
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- 366-70-1 (procarbazine hydrochloride) *see* Procarbazine and Its Hydrochloride
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- 542-75-6 (1,3-dichloropropene) *see* 1,3-Dichloropropene (Technical Grade)
- 542-88-1 (bis(chloromethyl) ether) *see* Bis(chloromethyl) Ether and Technical-Grade Chloromethyl Methyl Ether
- 556-52-5 *see* Glycidol
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- 584-84-9 (2,4-toluene diisocyanate) *see* Toluene Diisocyanates
- 593-60-2 (vinyl bromide) *see* Vinyl Halides (Selected)
- 612-82-8 (3,3'-dimethylbenzidine dihydrochloride) *see* 3,3'-Dimethylbenzidine and Dyes Metabolized to 3,3'-Dimethylbenzidine
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- 621-64-7 (*N*-nitrosodi-*n*-propylamine) *see* *N*-Nitrosamines: 15 Listings
- 630-93-3 (phenytoin sodium) *see* Phenytoin and Phenytoin Sodium
- 631-64-1 (dibromoacetic acid) *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)
- 671-16-9 (procarbazine) *see* Procarbazine and Its Hydrochloride
- 680-31-9 *see* Hexamethylphosphoramide
- 684-93-5 (*N*-nitroso-*N*-methylurea) *see* *N*-Nitrosamines: 15 Listings
- 759-73-9 (*N*-nitroso-*N*-ethylurea) *see* *N*-Nitrosamines: 15 Listings
- 924-16-3 (*N*-nitrosodi-*n*-butylamine) *see* *N*-Nitrosamines: 15 Listings
- 930-55-2 (*N*-nitrosopyrrolidine) *see* *N*-Nitrosamines: 15 Listings
- 1116-54-7 (*N*-nitrosodiethanolamine) *see* *N*-Nitrosamines: 15 Listings
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- 1307-96-6 (cobalt oxide) *see* Cobalt-Related Exposures
- 1309-64-4 *see* Antimony Trioxide
- 1313-99-1 (nickel monoxide) *see* Nickel and Nickel Compounds
- 1314-20-1 (thorium dioxide) *see* Ionizing Radiation
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- 1333-82-0 (chromium trioxide) *see* Chromium Hexavalent Compounds
- 1335-32-6 (lead subacetate) *see* Lead and Lead Compounds
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- 1836-75-5 *see* Nitrofen
- 1937-37-7 (C.I. direct black 38) *see* Benzidine and Dyes Metabolized to Benzidine
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- 2429-74-5 (C.I. direct blue 15) *see* 3,3'-Dimethoxybenzidine and Dyes Metabolized to 3,3'-Dimethoxybenzidine
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- 2602-46-2 (C.I. direct blue 6) *see* Benzidine and Dyes Metabolized to Benzidine
- 3165-93-3 (*p*-chloro-*o*-toluidine hydrochloride) *see* *p*-Chloro-*o*-toluidine and Its Hydrochloride
- 3296-90-0 (2,2-bis(bromomethyl)-1,3-propanediol) *see* 2,2-Bis(bromomethyl)-1,3-propanediol (Technical Grade)
- 3697-24-3 (5-methylchrysene) *see* Polycyclic Aromatic Hydrocarbons: 15 Listings
- 4342-03-4 *see* Dacarbazine
- 4549-40-0 (*N*-nitrosomethylvinylamine) *see* *N*-Nitrosamines: 15 Listings
- 5278-95-5 (chlorodibromoacetic acid) *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)
- 5522-43-0 (1-nitropyrene) *see* Nitroarenes (Selected)
- 5589-96-8 (bromochloroacetic acid) *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)
- 6459-94-5 (C.I. acid red 114) *see* 3,3'-Dimethylbenzidine and Dyes Metabolized to 3,3'-Dimethylbenzidine
- 7439-92-1 (lead) *see* Lead and Lead Compounds
- 7440-02-0 (nickel) *see* Nickel Compounds and Metallic Nickel
- 7440-38-2 (arsenic) *see* Arsenic and Inorganic Arsenic Compounds
- 7440-41-7 (beryllium) *see* Beryllium and Beryllium Compounds
- 7440-43-9 (cadmium) *see* Cadmium and Cadmium Compounds
- 7440-48-4 (cobalt) *see* Cobalt-Related Exposures
- 7446-27-7 (lead phosphate) *see* Lead and Lead Compounds
- 7446-34-6 *see* Selenium Sulfide
- 7496-02-8 (6-nitrochrysene) *see* Nitroarenes (Selected)
- 7631-89-2 (sodium arsenate) *see* Arsenic and Inorganic Arsenic Compounds
- 7646-79-9 (cobalt chloride) *see* Cobalt-Related Exposures
- 7631-89-2 (sodium arsenate) *see* Arsenic and Inorganic Arsenic Compounds
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- 7664-93-9 (sulfuric acid) *see* Strong Inorganic Acid Mists Containing Sulfuric Acid
- 7775-11-3 (sodium chromate) *see* Chromium Hexavalent Compounds
- 7778-44-1 (calcium arsenate) *see* Arsenic and Inorganic Arsenic Compounds
- 7778-50-9 (potassium dichromate) *see* Chromium Hexavalent Compounds
- 7784-40-9 (lead arsenate) *see* Arsenic and Inorganic Arsenic Compounds
- 7784-46-5 (sodium arsenite) *see* Arsenic and Inorganic Arsenic Compounds
- 7786-81-4 (nickel sulfate) *see* Nickel and Nickel Compounds
- 7787-47-5 (beryllium chloride) *see* Beryllium and Beryllium Compounds
- 7787-56-6 (beryllium sulfate tetrahydrate) *see* Beryllium and Beryllium Compounds
- 7788-98-9 (ammonium chromate) *see* Chromium Hexavalent Compounds
- 7789-00-6 (potassium chromate) *see* Chromium Hexavalent Compounds
- 7789-06-2 (strontium chromate) *see* Chromium Hexavalent Compounds
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- 8001-35-2 *see* Toxaphene
- 8007-45-2 (coal tar) *see* Coal Tars and Coal-Tar Pitches
- 9004-66-4 *see* Iron Dextran Complex
- 10026-24-1 (cobalt sulfate heptahydrate) *see* Cobalt-Related Exposures
- 10034-93-2 (hydrazine sulfate) *see* Hydrazine and Hydrazine Sulfate
- 10043-92-2 (radon) *see* Ionizing Radiation
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- 10124-43-3 (cobalt sulfate) *see* Cobalt-Related Exposures
- 10141-05-6 (cobalt nitrate) *see* Cobalt-Related Exposures
- 10540-29-1 *see* Tamoxifen
- 10588-01-9 (sodium dichromate) *see* Chromium Hexavalent Compounds
- 11104-61-3 (cobalt oxide) *see* Cobalt-Related Exposures
- 11113-75-0 (nickel sulfide) *see* Nickel and Nickel Compounds
- 11119-70-3 (lead chromate) *see* Chromium Hexavalent Compounds
- 12001-28-4 (crocidolite) *see* Asbestos
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- 12035-72-2 (nickel subsulfide) *see* Nickel and Nickel Compounds
- 12054-48-7 (nickel hydroxide) *see* Nickel and Nickel Compounds
- 12126-59-9 (conjugated estrogens) *see* Estrogens, Steroidal
- 12172-73-5 (amosite) *see* Asbestos
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- 13010-47-4 (1-(2-chloroethyl)-3-cyclohexyl-1-nitrosourea) *see* Nitrosourea Chemotherapeutic Agents
- 13256-22-9 (*N*-nitrososarcosine) *see* *N*-Nitrosamines: 15 Listings
- 13327-32-7 (beryllium hydroxide) *see* Beryllium and Beryllium Compounds
- 13464-35-2 (potassium arsenite) *see* Arsenic and Inorganic Arsenic Compounds
- 13510-49-1 (beryllium sulfate) *see* Beryllium and Beryllium Compounds
- 13530-65-9 (zinc chromate) *see* Chromium Hexavalent Compounds
- 13552-44-8 (4,4'-methylenedianiline dihydrochloride) *see* 4,4'-Methylenedianiline and its Dihydrochloride
- 13598-00-0 (beryllium silicate) *see* Beryllium and Beryllium Compounds
- 13598-15-7 (beryllium phosphate) *see* Beryllium and Beryllium Compounds
- 13654-09-6 (decabromobiphenyl) *see* Polybrominated Biphenyls
- 13765-19-0 (calcium chromate) *see* Chromium Hexavalent Compounds
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- 14464-46-1 (cristobalite) *see* Silica
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- 15347-57-6 (lead acetate) *see* Lead and Lead Compounds
- 15468-32-3 (tridymite) *see* Silica
- 15663-27-1 *see* Cisplatin
- 16071-86-6 (C.I. direct brown 95) *see* Benzidine and Dyes Metabolized to Benzidine
- 16543-55-8 (*N*-nitrosornicotine) *see* *N*-Nitrosamines: 15 Listings
- 18540-29-9 (chromium VI) *see* Chromium Hexavalent Compounds
- 18883-66-4 (streptozotocin) *see* Nitrosourea Chemotherapeutic Agents
- 23214-92-8 *see* Adriamycin
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- 25013-16-5 *see* Butylated Hydroxyanisole
- 25316-40-9 (doxorubicin hydrochloride) *see* Adriamycin
- 25638-88-4 (zinc beryllium silicate) *see* Beryllium and Beryllium Compounds
- 26471-62-5 *see* Toluene Diisocyanates
- 36355-01-8 (hexabromobiphenyl) *see* Polybrominated Biphenyls
- 39156-41-7 *see* 2,4-Diaminoanisole Sulfate
- 42397-64-8 (1,6-dinitropyrene) *see* Nitroarenes (Selected)
- 42397-65-9 (1,8-dinitropyrene) *see* Nitroarenes (Selected)
- 54749-90-5 (chlorozotocin) *see* Nitrosourea Chemotherapeutic Agents
- 57835-92-4 (4-nitropyrene) *see* Nitroarenes (Selected)
- 59865-13-3 *see* Cyclosporin A
- 61288-13-9 (octabromobiphenyl) *see* Polybrominated Biphenyls
- 64091-91-4 (4-(*N*-nitrosomethylamino)-1-(3-pyridyl)-1-butanone) *see* *N*-Nitrosamine Compounds: 15 Listings
- 65996-93-2 (coal-tar pitch) *see* Coal Tar and Coal-Tar Pitches
- 66104-24-3 (beryllium carbonate) *see* Beryllium and Beryllium Compounds
- 66733-21-9 *see* Erionite
- 71133-14-7 (bromodichloroacetic acid) *see* Haloacetic Acids Found as Water Disinfection By-products (Selected)
- 76180-96-6 (2-amino-3-methylimidazo-[4,5-*f*]quinoline [IQ]) *see* Heterocyclic Amines (Selected)
- 77094-11-2 (2-amino-3,4-dimethylimidazo[4,5-*f*]quinoline [MeIQ]) *see* Heterocyclic Amines (Selected)
- 77500-04-0 (2-amino-3,8-dimethylimidazo[4,5-*f*]quinoxaline [MeIQx]) *see* Heterocyclic Amines (Selected)
- 77536-66-4 (actinolite) *see* Asbestos
- 77536-67-5 (anthophyllite) *see* Asbestos
- 77536-68-6 (tremolite) *see* Asbestos
- 105650-23-5 (2-amino-1-methyl-6-phenylimidazo[4,5-*b*]pyridine [PhIP]) *see* Heterocyclic Amines (Selected)
- 108171-26-2 *see* Chlorinated Paraffins (C₁₂, 60% Chlorine)



U.S. Department of Health and Human Services
Public Health Service
National Toxicology Program
PO Box 12233
Research Triangle Park, NC 27709-2510
SSN 1551-82800