SPECIFIC MEDICAL TESTS AND EXAMINATIONS PUBLISHED IN THE LITERATURE FOR OSHA-REGULATED SUBSTANCES

(OSHA = Occupational Safety and Health Administration)

PLEASE NOTE: (1) The Efficacy of these Medical Tests has not been evaluated by NIOSH. (2) NIOSH References include Diagnostic, Screening, and Other Medical Tests. (3) Revised OSHA Mandated Medical Tests (OSHA 6[b][5] Standards) are Provided in Red and Listed First.
(4) Only OSHA-Regulated Substances (29 CFR 1910.1000 TABLE Z-1 -- Air Contaminants) with Published Medical Tests are Included.

NAME OF CHEMICAL	CAS#	SPECIFIC MEDICAL TESTS & EXAMINATIONS (REFERENCES ARE IN SUPERSCRIPT)
Acetaldehyde	00075-07-0	
Acetone	00067-64-1	Gen[2] BL[1,3] BL(DE)[15] ExA[3,5] ExA(DE)[15] PFT(FVC FEV1)[2] U[2] U(DE)[15] U(EOS)[1,11,18] U(PPS)[17]
Acetonitrile	00075-05-8	
Acetylaminofluorene, 2-	00053-96-3	
Acetylene Tetrabromide	00079-27-6	
Acrolein	00107-02-8	
Acrylamide	00079-06-1	
Acrylonitrile	00107-13-1	
Aldrin	00309-00-2	
Allyl Chloride	00107-05-1	
Aluminum Metal/Powder	07429-90-5	
Aminodiphenyl, 4-	00092-67-1	
Ammonia	07664-41-7	
Aniline	00062-53-3	BL[3] BL(Hgb)[7] BL(HgbA)[3] BL(MHgb)[2-5,18] BL(MHgb DE or EOS)[11] BL(MHgb EOS)[15] CBC[2] Oph[2] Skn[2] U[2-4,12,16,17] U(EOS)[2,11,15,18] U(EWW)[18] Ua(Cyt Hmt)[7]
Anisidine (o-, p-isomers)	Varies	
Antimony and Compounds	Varies	
Arsenic, Inorganic and Compounds	Varies	
Arsine	07784-42-1	
Asbestos	Varies	
Azinphos-Methyl (Guthion®)	00086-50-0	
Barium and Compounds	Varies	
Benomyl	17804-35-2	
Benzene	00071-43-2	
Benzidine	00092-87-5	
Benzyl Chloride	00100-44-7	
Beryllium and Compounds	Varies	
Bis(Chloromethyl)Ether	00542-88-1	
Boron Trifluoride	07637-07-2	
Bromine	07726-95-6	
Butadiene, 1,3-	00106-99-0	
Butoxyethanol, 2- (Butyl Cellosolve)	00111-76-2	
Butyl Alcohol, n-	00071-36-3	
Butyl Chromate, tert-	01189-85-1	
Butyl Glycidyl Ether, n- (BGE)	02426-08-6	
Butyl Mercaptan, n-	00109-79-5	
Butyltoluene, p-tert-	00098-51-1	
Cadmium Dust and Fume	Varies	
Camphor, Synthetic	00076-22-2	
Carbaryl (Sevin®)	00063-25-2	Gen[2] BL(EOS)[15] BLS[5,8] CH(BL PPS)[2,3] CH(RBC EOS)[11] CH(RBC PPS)[7] Oph[2] Preg[2] U[2,3,5,7] U(EOS)[15] Ua[2]
Carbon Black	01333-86-4	
Carbon Disulfide	00075-15-0	
Carbon Monoxide	00630-08-0	Gen[2] BL(COHb)[2-5,7,12,16] BL(COHb EOS)[10,15,18] BL(COHb EWW)[18] CBC[2] ExA[3-5,7] ExA(EOS)[11,18] ExA(EWW)[18]
Carbon Tetrachloride	00056-23-5	
Chlordane	00057-74-9	
Chlorinated Diphenyl Oxide	55720-99-5	
Chlorine	07782-50-5	
Chlorine Dioxide	10049-04-4	
Chlorine Trifluoride	07790-91-2	
Chlorobenzene	00108-90-7	
Chloroform (Trichloromethane)	00067-66-3	
Chloromethyl Methyl Ether	00107-30-2	
Chloropicrin	00076-06-2	
Chloroprene, beta-	00126-99-8	
Chromic Acid and Chromates	Varies	
Chromium, Metal and Compounds	Varies	
Coal Dust	68131-74-8	
Coal Tar Pitch Volatiles	65996-93-2	
Cobalt Metal, Dust, and Fume	07440-48-4	
Coke Oven Emissions	- -	
Copper Dust and Fume	07440-50-8	
Cotton Dust	- -	
Cresol, p-	00106-44-5	
Cumene	00098-82-8	
Cyanide	00057-12-5	
Cyclohexane	00110-82-7	
Cyclohexanone	00108-94-1	
Demeton (Systox®)	8065-48-3	
Diacetone Alcohol	00123-42-2	
Diazomethane	00334-88-3	
Diborane	19287-45-7	
Dibromo-3-Chloropropane, 1,2- (DBCP)	00096-12-8	BLS(FSH LH TE)[7] GUT(TST SCt)[7] Gen[2] BLS(FSH LH SMA-12 Testo)[7] CBC[7] PFT(FVC FEV1)[2] SCt[2,7] TFT[7] Ua[7]
Dichlorobenzene, o-	00095-50-1	
Dichlorobenzene, p-	00106-46-7	
Dichlorobenzidine, 3,3'-	00091-94-1	
Dichlorodiphenyltrichloroethane (DDT)	00050-29-3	
Dichloroethyl Ether	00111-44-4	
Dichlorophenoxyacetic Acid, 2,4- (2,4-D)	00094-75-7	
Dichlorvos (DDVP)	00062-73-7	
Dieldrin	00060-57-1	
Diglycidyl Ether (DGE)	02238-07-5	
Diisobutyl Ketone	00108-83-8	
Dimethyl Acetamide	00127-19-5	
Dimethyl Sulfate	00077-78-1	
Dimethyl-1,2-Dibromo-2,2-Dichloroethyl Phosphate (Naled)	00300-76-5	
Dimethylaminoazobenzene, 4- (DAB)	00060-11-7	
Dimethylaniline (N, N-Dimethylaniline)	00121-69-7	
Dimethylformamide (DMF)	00068-12-2	
Dimethylhydrazine, 1,1-	00057-14-7	
Dinitro-o-Cresol	00534-52-1	
Dinitrobenzene (all isomers)	Varies	
Dinitrotoluene, 2,4-	00121-14-2	
Dioxane (Diethylene Dioxide)	00123-91-1	BL(BUN)[7] BL(DE)[15] BLP[1] BLS(SCr)[7] CXr[2] ExA[4] KFT[7] LFT[2,7] PFT(FVC FEV1)[2] Skn[2] U[1] U(Sed)[7] U(EOS)[1,13] Ua[2]
Diphenyl (Biphenyl)	00092-52-4	
Endrin	00072-20-8	
Epichlorohydrin	00106-89-8	
EPN	02104-64-5	
Ethoxyethanol, 2- (Ethyl Cellosolve)	00110-80-5	
Ethyl Alcohol (Ethanol)	00064-17-5	
Ethyl Benzene	00100-41-4	
Ethyl Ether (Ether)	00060-29-7	
Ethyl Mercaptan	00075-08-1	
Ethylene Chlorohydrin	00107-07-3	
Ethylene Dibromide	00106-93-4	
Ethylene Dichloride	00107-06-2	
Ethylene Glycol Dinitrate	00628-96-6	

NAME OF CHEMICAL	CAS#	SPECIFIC MEDICAL TESTS & EXAMINATIONS (REFERENCES ARE IN SUPERSCRIPT)
Ethylene Oxide	00075-21-8	CBC(WBC RBC Hct Hgb)[7] Gen[2] BGa[7] BL[1,3] CBC[7] CXr[2] Ecg[7] ExA[1,4] ExA(DE)[5] PFT(FVC FEV1)[2,7] RBC[5] Skn[2] SpC[7] WBC[7]
Ethyleneimine	00151-56-4	
Ferrovanadium Dust	12604-58-9	
Fluoride, Inorganic	16984-48-8	
Fluorine	07782-41-4	
Formaldehyde	00050-00-0	
Furfural	00098-01-1	
Furfuryl Alcohol	00098-00-0	
Graphite, Natural	07782-42-5	
Hexachloronaphthalene (Halowax 1014)	01335-87-1	
Hexane, n-	00110-54-3	
Hydrazine	00302-01-2	
Hydrogen Chloride (Hydrochloric Acid)	07647-01-0	
Hydrogen Cyanide (Hydrocyanic Acid)	00074-90-8	
Hydrogen Fluoride (Hydrofluoric Acid)	07664-39-3	
Hydrogen Sulfide	07783-06-4	
Hydroquinone	00123-31-9	
Iodine	07553-56-2	
Iron Oxide Fume	1309-37-1	
Isophorone	00078-59-1	
Isopropyl Alcohol (Isopropanol)	00067-63-0	
Isopropyl Glycidyl Ether (IGE)	04016-14-2	
Ketene	00463-51-4	
Lead, Inorganic	07439-92-1	
Lindane	00058-89-9	
Lithium Hydride	07580-67-8	
Magnesium Oxide Fume	01309-48-4	
Malathion	00121-75-5	Gen[2] BLS[5] CH (BL)[1,18] CH(BLS RBC)[2] CH(RBC)[7] CH(RBC EOS)[11] CXr[2] GIT[7] LFT[2] Neur[2] Oph[2] PFT(FVC FEV1)[2] Skn[2] U[illegible]
Maleic Anhydride	00108-31-6	
Manganese and Compounds	Varies	
Mercury, Inorganic and Compounds	Varies	BFS[4] BL[1,3,12,16] BL(BUN)[7] BL(EOS)[18] BL(EWW)[18] BLS(SCr)[7] BT[3] NCS[14,18] Neur[2,7] Skn[2] TFT[7] U[1,3,5,9,12 illegible] U(Sed)[7] Ua[4]
Mercury, Organo Alkyl Compounds	Varies	
Methoxyethanol, 2- (Methyl Cellosolve)	00109-86-4	
Methyl Alcohol (Methanol)	00067-56-1	
Methyl Bromide	00074-83-9	
Methyl Chloride	00074-87-3	
Methyl Chloroform	00071-55-6	
Methyl Ethyl Ketone (MEK)	00078-93-3	
Methyl Hydrazine	00060-34-4	
Methyl Isobutyl Ketone (MIBK)	00108-10-1	
Methyl Isocyanate	00624-83-9	
Methyl Mercaptan	00074-93-1	
Methyl n-Amyl Ketone	00110-43-0	
Methyl n-Butyl Ketone (MBK)	00591-78-6	
Methyl Propyl Ketone	00107-87-9	
Methyl Styrene, alpha-	00098-83-9	
Methylene Bisphenyl Isocyanate (MDI)	00101-68-8	Lab(COHb Ecgr Hct LFT Chol)[7] BL[3,5] Eo illegible [2,3,5,18] BL(COHb E illegible] BL(EOS)[15] Card[2] CBC[2,7] ExA[3-5,16] ExA(EOS)[15] KD[2] LFT[7] Skn[2] U[1,18] U(EOS)[11]
Methylene Chloride	00075-09-2	
Methylene Dianiline, 4,4'-	00101-77-9	
Mica	12001-26-2	
Molybdenum and Compounds	Varies	
Monomethyl Aniline	00100-61-8	
Naphthalene	00091-20-3	
Naphthylamine, alpha-	00134-32-7	
Naphthylamine, beta-	00091-59-8	
Nickel Carbonyl	13463-39-3	
Nickel, Metal and Compounds	Varies	
Nicotine	00054-11-5	
Nitric Acid	07697-37-2	
Nitric Oxide	illegible	
Nitroaniline, p-	illegible 1-6	
Nitrobenzene	00098-95-3	BL[1] illegible][2, 3, 5,18] BL(MHgb DE or EOS)[11] BL(MHgb EOS)[15] CBC[2,7] Skn[2] U[1,7] U(EOS)[15,18] U(EWW)[1,12,18] Ua[2]
Nitrophenyl, 4-	00092-93-3	
Nitrochlorobenzene, p-	00100-00-5	
Nitrogen Dioxide	10102-44-0	
Nitrogen Trifluoride	7783-54- illegible	
Nitroglycerine	00055-63- illegible	
Nitropropane, 2-	00079-46-9	
Nitrosodimethylamine, N-	00062-75-9	
Nitrotoluene (all isomers)	Varies	
Octachloronaphthalene	02234-13-1	
Oxalic Acid	00144-62-7	
Oxygen Difluoride	07783-41-7	
Ozone	10028-15-6	
Paraquat	04685-14-7	
Parathion	00056-38-2	
Pentachloronaphthalene	01321-64-8	
Pentachlorophenol	00087-86-5	
Perchloroethylene (Tetrachloroethylene)	00127-18-4	BL[1,12,18] BL(EWW)[15,18] BL(PNS)[15] BL(PTS)[18] BL(16H)[7] ExA[1,4,10,12,16] ExA(DE)[5] ExA(EOS)[1,13] ExA(EWW)[10,18] ExA(PNS)[15] ExA(PTS)[18] ExA(16H)[5] LFT[2,7] Neur[2] Skn[2] U[1,12,16] U(EOS)[15,18] U(EWW)[13,15,18] U(16H)[5] Ua[2]
Perchloromethyl Mercaptan	00594-42-3	
Perchloryl Fluoride	07616-94-6	
Phenol	00108-95-2	
Phenyl Glycidyl Ether (PGE)	00122-60-1	
Phenylhydrazine	00100-63-0	
Phosdrin (Mevinphos®)	07786-34-7	Gen[2] BLS[5] CH(BLS RBC)[2] CH(RBC)[7] CH(RBC EOS)[11] Neur[2] Oph[2] Resp[2] Skn[2]
Phosgene (Carbonyl Chloride)	00075-44-5	
Phosphine	07803-51-2	

NAME OF CHEMICAL	CAS#	SPECIFIC MEDICAL TESTS & EXAMINATIONS (REFERENCES ARE IN SUPERSCRIPT)
Phosphorus (Yellow)	07723-14-0	
Phosphorus Pentachloride	10026-13-8	
Phosphorus Pentasulfide	01314-80-3	
Phosphorus Trichloride	07719-12-2	
Phthalic Anhydride	00085-44-9	
Picric Acid	00088-89-1	
Pindone (2-Pivalyl-1,3-Indandione)	00083-26-1	
Platinum, Metal and Compounds	Varies	
Polychlorobiphenyl (42%Chlorine) (PCB)	53469-21-9	AdT[1,3] BL[3,5,18] BLP[1] BLS[5,8,17] LFT[2,7] Preg[2] Skn[2]
Polychlorodiphenyl (54%Chlorine) (PCB)	11097-69-1	
Portland Cement	65997-15-1	
Propiolactone, beta-	00057-57-8	
Propyl Nitrate, n-	00627-13-4	
Propyleneimine	00075-55-8	
Pyridine	00110-86-1	
Quinone	00106-51-4	
Selenium & Compounds, except SeF_6	Varies	
Selenium Hexafluoride (SeF_6)	07783-79-1	
Silica, Amorphous, Diatomaceous Earth	61790-53-2	
Silica, Crystalline Cristobalite	14464-46-1	Gen[2] CXr[2,7] PFT(FVC FEV1)[2,7] Rdg[7] SpC[7] TBS[7]
Silica, Tripoli (Quartz)	illegible	
Silica, Tripstone	- -	
Silicates (less than 1% Crystalline Silica, without Asbestos)	14807-96-6	
Silver, Metal and Compounds	Varies	
Sodium Fluoroacetate	00062-74- illegible	
Sodium Hydroxide	illegible	
Stibine	illegible 52-3	
Stoddard Solvent	illegible 052-41-3	
Strychnine	00057-24-9	
Styrene	00100-42-5	BL[1] BL(EOS)[15,18] BL(EWW)[18] BL(PNS)[15] BL(PTS)[18] ExA[4,5,8,12] ExA(DE)[15] ExA(PNS)[15] KFT[7] LFT[7] Neur[2,7] PD[2] Skn[2] U[5,7,8,16,12] U(EOS)[1,11,15,18] U(EWW 16H)[18] U(PTS)[18] U(16H)[5]
Sulfotepp (TEDP)	03689-24-5	
Sulfur Dioxide	07446-09-5	
Sulfur Monochloride	10025-67-9	
Sulfur Pentafluoride	05714-22-7	
Sulfuric Acid	07664-93-9	
Tellurium Hexafluoride	07783-80-4	
Tetrachloroethane, 1,1,2,2-	00079-34-5	
Tetrachloronaphthalene	01335-88-2	
Tetraethyl Lead	00078-00-2	
Tetraethyl Pyrophosphate (TEPP)	00107-49-3	
Tetrahydrofuran	00109-99-9	
Tetramethyl Lead	00075-74-1	
Tetranitromethane	00509-14-8	
Tetryl	00479-45-8	
Thallium and Compounds	Varies	
Tin, Inorganic Compounds (exc Oxide)	Varies	
Tin, Organic Compounds	Varies	
Toluene	00108-88-3	
Toluene, 2,4-Diisocyanate (TDI)	00584-84-9	
Toluidine, o-	00095-53-4	Gen[5] BL(MHgb)[2,5,18] BL(MHgb DE or EOS)[11] CBC[2] Oph[2] RBC(HgbA)[7] Skn[2] U[5,8,17] U(BL)[7] Ua[2]
Trichloroethane, 1,1,2-	00079-00-5	
Trichloroethylene	00079-01-6	Gen[7] BL[3,5,12] BL(EOS)[15,18] BL(EWW)[15,18] BL(EWW)[15,18] ExA[4,7,12] Exa(DE)[7] ExA(ESW)[11] ExA(EWW)[15] ExA(PNS)[3,15] ExA(16H)[5] LFT[7] PFT(FVC FEV1)[7] Skn[2] U[1,12,17] U(EOS)[15,18] U(ESW)[11] U(EWW)[15,18] U(PNS)[7]
Trichlorofluoromethane	00075-69-4	
Trichloronaphthalene	01321-65-9	
TrichlorophenoxyaceticAcid,2,4,5-(2,4,5- T)	00093-76-5	
Trichloropropane, 1,2,3-	00096-18-4	
Trinitrotoluene, 2,4,6- (TNT)	00118-96-7	
Uranium and Compounds	Varies	
Vanadium Fume (Pentoxide)	01314-62-1	
Vinyl Chloride	00075-01-4	
Warfarin	00081-81-2	
Xylene (all isomers)	Varies	
Xylidine	01300-73-8	
Zinc Chloride Fume	07646-85-7	
Zinc Oxide Fume	01314-13-2	
Zirconium & Compounds, except $ZrCl_4$	Varies	

GLOSSARY OF TERMS

EM	= Every Month
2H/4H	= Last 2 Hours/4 Hours of Exposure
6M	= Every 6 Months
16H	= 16 Hours after End of Exposure
24H	= 24-Hour Collection
AdT	= Adipose Tissue
Alb	= Albumin
Anm	= Anemia
ApA	= Aplastic Anemia
APh	= Alkaline Phosphatase
β2M	= β-2 Microglobulin in Urine
BFS	= Saliva Analysis
BGa	= Blood Gas Analysis
BH	= Body Hair
Bicarb	= Bicarbonate
BL	= Whole Blood (Chemical/Metabolite)
BLC	= Cyanide in Blood
BLL	= Blood Lead Level
BLP	= Blood Plasma
BLPr	= Blood Pressure
BLS	= Blood Serum
BLW	= Blood Analyzed Weekly
BLW12H	= Blood Taken within 12 Hours after Exposure
BMU	= Biologic Monitoring of Urine every 3 Months
BN/BT	= Body Nail/ Biologic Tissue
Br	= Bilirubin
BT	= Biologic Tissue/Biopsy
Bth	= Breath
BUN	= Blood Urea Nitrogen
Ca	= Calcium
Card	= Cardiovascular Disease
CBC	= Complete Blood Count
CH	= Blood Cholinesterase
Chol	= Cholesterol
Cig	= Cigarette Smoking
Cnv	= Convulsions
CO_2	= Carbon Dioxide
COHb	= Carboxyhemoglobin
CXr	= Chest X-ray
Cys	= Cystoscopy
Cyt	= Cytology
DE	= During Exposure
DXr	= Dental X-ray/Examination
Ecg	= Electrocardiogram
Ecgr	= Electrocardiogram (Resting)
Ecg40	= Electrocardiogram on Workers >40 yrs.
EOS	= End-Of-Shift
Ery	= Erythrocyte Count
ESW	= End of Shift at End of Workweek
EWW	= End of Workweek
ExA	= Exhaled Air
FEF	= Forced Expiratory Flow Rate
FEV1	= Forced Expiratory Volume (1 Second)
FOB	= Fecal Occult Blood Screening (age>40)
Frg	= Fragility
FSH	= Follicle Stimulating Hormone
FVC	= Forced Vital Capacity
Gen	= In General
GGT	= Gamma Glutamyl Transpeptidase
GIT	= Gastrointestinal Tract
GL	= Granulocytic Leukemia
Glu	= Sugar/Glucose
GraS	= Granuloma of the Skin
GUT	= Genito-Urinary Tract
Hct	= Hematocrit
HeD	= Hematopoietic Disease/Depression
Hem	= Hemolysis
Hgb	= Hemoglobin
HgbA	= Hemoglobin Adduct
Hmt	= Hematuria
Hyt	= Hypoprothrombinemia
InR	= Increased Risk
KFT/KD	= Kidney Function Tests/Kidney Disease
L2H/4H	= Last 2/4 Hours of 8-Hour Exposure
Lab	= Laboratory Surveillance
Lac	= Lactic Acid
LDH	= Lactic Dehydrogenase
Leuk	= Leukocyte Count
LFT/LD	= Liver Function Tests/Liver Disease
LH	= Luteinizing Hormone
LTT	= Lymphocyte Transformation Test
MHgb	= Methemoglobin
Micr	= Microscopic Examination
Nas	= Nasal Examination
NCS	= Nerve Conduction Studies
Neur	= Neurologic Examination/Electromyography
OBL	= Occult Blood
Oph	= Ophthalmic Examination
pH	= pH (Hydrogen Ion Concentration)
PFT/PD	= Pulmonary Function Tests
Pgm	= Pigmentation Evidence
PMN	= Polymorphonuclear Leukocytes
PNS	= Prior to Next Shift
PPS	= Pre- & Post-Shift
PpT	= Photopatch Testing
Preg	= Pregnancy
PSW	= Post-Shift at End of Workweek
PTS	= Prior to Shift
PTT	= Prothrombin Time
PWW	= Prior to Last Shift of Workweek
PXr	= Pelvic X-ray
RBC	= Red Blood Cells/Count
Rdg	= Radiography
ReC	= Reticulocyte Count
Resp	= Respiratory Disease
RIC	= Reduced Immunologic Competence
SCr	= Serum Creatinine
SCt	= Sperm Count
SDC	= Stained Differential Count of all Blood Cell Types
Sed	= Sediment
SGOT	= Serum Glutamic Oxalacetic Transaminase
SGPT	= Serum Glutamic Pyruvic Transaminase
Skn	= Skin Examination
SMA-12	= Serum Multiphasic Analysis
SpC	= Sputum Cytology
Ster	= Steroid Treatment
TBS	= Tuberculin Skin Test
TE	= Total Estrogen (Females)
Testo	= Testosterone
TFT	= Thyroid Function Test/Thyroid Profile
Thrm	= Thrombocyte Count
TST	= Testicle Size
U	= Urine (Chemical/Metabolite)
Ua	= Urinalysis (Routine)
Usg	= Ultrasonography of the Liver
WBC	= White Blood Cell Count/Differential
ZPP	= Zinc Protoporphyrin

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This Update Reflects the Changes in OSHA Regulations Since 1995 & Includes NIOSH's 2021 Updated Recommendations in Routine Spirometry Testing of Coal Workers
As Part of Implementing Infection Prevention and Control Precautions in the Transmission of SARS-COV-2 and also Updated NIOSH's Webpage Analytical Methods, 5th Edition.

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