Index

This index lists topics covered in the book in the order of the alphabet. Chemical names that begin with numbers appear first, before the letter A.

1 2 3 4 5 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Page numbers in **bold** (for example **527–528**) show the page numbers in the chemical charts (in Appendix B) where you will find the most information about the chemical.

1,1,1-Trichloroethane, 70

1-Methoxy 2-propanol, 527-528

2,2-Dimethylbutane (neohexane), 520-521

2,2-Mercaptodibenzothiazyl disulphide (MBTS), 501-502

2-Bromopropane, 381

2-Mercapto benzthiazole (MBT), 112, **501–502**

2-Methoxy 1-propanol, 527-528 2-Methylpentane, 520-521

AA (Alcoholics Anonymous), 400

Abortion, 327, 387

Abuse see Violence

Accelerators see Mercapto-based rubber accelerators

Accidental releases see Chemical spills

Acetic acid, 475-476

Acetone, 70, 105, 116, 382, 529

Acids, 262, 263, 474-476

acetic acid. 475-476

formic acid, **475–476**

hydrochloric acid (HCI), 475-476,

493-495

hydrofluoric acid (HF), 66, 262, 475-476

nitric acid, 475-476 reduction of exposure, 474

Acid wash chemicals

chlorine bleach, 101, 477-478 potassium permanganate bleach, 101, **477–478**

reduction of exposure, 477

Activated charcoal

first aid for mouth contact, 176

Activities, list of, xii

Adipates, 510

AIDS see **HIV**

Air

chemicals reducing oxygen, 174 measuring chemicals in, 156 reducing chemicals in, 166-169 right to healthy air at work, 255 also see Breathing in chemicals;

Ventilation

Air conditioning, 234, 249, 395

Air pollution

burning plastic, 90 health problems from, 438, 441 organizing against, 257 sources of, 89, 438, 439 ventilation filters for, 246, 247 ventilation of factory and, 168 also see Pollution

Alcohol and other drugs

drinking water preferred to, 414 misuse of, 400

Alcoholics Anonymous (AA), 400

Alcohol solvents, 263, 518-519 ethyl alcohol (ethanol), 105,

518-519

isopropyl alcohol, 88, 93, 105,

181-182, **518-519**

methyl alcohol (methanol), 518-519

reduction of exposure, 517

Aliphatic hydrocarbon solvents (petroleum distillates), 70, 520-521

2,2-dimethylbutane (neohexane), 520-521

2-methylpentane, 520-521

cyclohexane, 116, 520-521 heptane, 520-521

hexane, 520-521 reduction of exposure, 517

Allergies

from chemicals, 159 from dust, 220 latex, 265 nickel, 78, 82, 95

Allies, relationships with, 56, 60

Aluminium hydroxide, 491–492

Aluminum, 76, 488

Ammonia and ammonium compounds, 479-481

ammonia, 116, 479-481 ammonium chloride, 479-481, 493-495

ammonium hydroxide, 479-481 first aid, 174

reduction of exposure, 479

Anthraquinone dyes, 486 Antibacterial treatments, 94

Antibiotics

in HIV treatment programs, 422 ointment, for conjunctivitis, 373 taking all of the prescription, 389 for UTIs, 373, 388

Antifungal medicine, 388

Antimony, 488

Antimony trioxide, 112, **491–492** Antiretroviral medicine (ART),

328, 419, 422, 427

Anti-static clothing and **protection**, 82, 87, 172, 275

Anxiety, 398

Arm massage, 146–147

Aromatic amines, 163

Aromatic hydrocarbon solvents,

70, 93, 119, 163 benzene, 70, 93, 116, 163, 190, 382, **522–523**

reduction of exposure, 517 styrene, 163, **522–523** toluene, 70, 105, 116, 117, 163, 382, **522–523**

xylene, 70, 116, 163, 382, **522–523**

Arsenic, 163

Arsine, 73, 482–484
ART see Antiretrovirals

Asbestos, 170, 266

Aspirin, 149

Asthma, 97, 160, 245

allergy development and, 159 chemicals as cause of, 94, 160, 171, 174 dust as cause of, 160, 220

medicine for, 159 smoking and, 171

Audiograms, 224, 225

Auto-immune diseases, 102 Azo dyes, 486–487

В

Back stretches, 145 Bandanas

make a mask for dust, 267 some protection from dust, 90, 111

also see Masks and respirators

Bans on chemicals

electronics industry, 74, 82, 84, 190, 383 flame retardants, 190, 488 as government responsibility, 151 list of banned chemicals, 190 lobbying for additional bans, 190 improving worker health by, 517

Batteries

electronics industry and, 83, 84 nickel-cadmium, 84 pollution from trash, 83, 445

BBP see Butyl benzyl phthalate Benadryl (diphpenhydramine), 150

Benzene, 70, 93, 116, 163, 190, 382, **522–523**

Benzoyl peroxide, 502

Better Work program (ILO), 5, 7, 456

Bins see Carts and bins

Birth control pills, 386

Birth control see Family planning Birth defects see Reproductive

and sexual health

Bisphenol-A (BPA), 155

Bisphenyl diisocyanate, 498-500

Bladder cancers, 163

Bladder infections see Urinary

tract infections

Block out see Lock out

Blood and bleeding

cleaning up injury site, 204 direct pressure to stop, 204 exposure when giving first aid, 204

first aid for, 203–204

HIV passing and, 420, 424, 427 rape and, 327

safety when giving first aid, 203, 204

also see Machine injuries

Blood cancer (leukemia), 163

Boron, 73

Boycotts, organizing, 61, 407

BPA (bisphenol-A), 155

Brain cancer, 162, 163

Brands see Global companies/ brands

Breaks

cold, rest breaks from, 237 heat, rest breaks from, 234 homeworkers and, 300 injury reductions, 141, 300 for meals, 406, 408 organizing during, 290 stretching during, 403 for toilet, hydration and, 234

Breast cancer, 384 Breast exams, 384

Breastfeeding

chemicals passing through, 161 as family planning method, 386 getting enough food during, 408 HIV passing through, 420 time for, at work, 314, 379

Breathing in chemicals

burns inside the body from, 66 first aid for, 174 fresh air, need for, 174, 245 health center visit for, 67 how exposures happen, 154 internal organ damage from, 66 reduction of exposures, 166–169, 171

signs of, 67, 73, 81, 115, 153, 245 smell as sign of, 154 treatment for, 67

also see Lung problems; and go to Appendix B, 474–529

Breathing in dust see Dust Breathing in smoke, 217

Brominated fire retardants see Flame retardants, halogenated

Bromopropane, 525

Brown lung (byssinosis), 97–98, 220

"Bunny suits", 274

Burning waste, 90, 119, 438, 439, 440

Burnout, 398

Burns

blisters from, 217 chemical, first aid for, 66, 159 electric shock, first aid for, 209 fires, first aid for, 217 health center care needed for, 217 hot water or oil, first aid for, 217 ice water for, 217 machine injuries, first aid for, 204 minor, 217 UV-light exposure, 71

Butyl acetate, 70, 526 Butyl benzyl phthalate (BBP), 508–510

Byssinosis (brown lung), 97–98, 220

C

Cadmium, 84, 119, 442, **503–505** bans in electronics, 74, 84, 190 harms caused by, 84, 163, 382

Calcium gluconate gel, 66

Campaigns

examples of, 60-62, 292 international, 59, 292, 294 relationships with allies, 59-60 steps to planning and taking action, 53-57 using labor law to support, 449-460

also see Organizing for better

jobs

Cancer

bladder, 163 blood (leukemia), 163 brain, 162, 163 breast, 384 cervical, 163, 384 defined, 162 finding early, 162, 384 kidney, 163 liver, 163 lung, 163, 171, 266 nose and throat, 108, 163 prostate, 163 and shoe workers, 108 skin, 163 stomach, 163 testicular, 163, 376, 384 testing, 372 as work-related, recognition of, 68, 162 also see Cancer, chemicals

Cancer, chemicals causing, 163

causing

PCBs. 163

phthalates, 163

aromatic amines, 163 aromatic hydrocarbons, 93, 163 arsine, 163 azo dyes, 93, 163 benzene, 163 cadmium, 163 chromium hexavalent, 93, 163 dichloropropane, 163 dves. 93 flame retardants, 94, 163 fluorinated hydrocarbons, 72 formaldehyde, 94, 163 ILO Convention on, 183 ionizing radiation, 163 lead, 163 mercury, 163 methylene chloride, 163 nickel, 78, 163

recognition as work-caused, 162 reproductive system, 384 sand dust (silicosis), 102 SDS listing effects of each, 182 styrene, 163 tetrachloroethylene (PERC), 163 toluene, 163 trichloroethylene, 163 UV light, 163 vinyl chloride, 163 x-rays, 163 xylene, 163 *and go to* Appendix B, 474–529

Carbon monoxide, 174

Carbon tetrachloride, 190, 382, 524-525

Carrying and lifting, 136–140 Carts and bins

ergonomics of, 137-140 make a spring-loaded cart, 137 noise reduction of, 227

CAS numbers, 180, 465

Cell phones

recording discrimination, 315 recording violence, 331 worker organizing via, 15

Cervical cancer/ exams, 163, 384 Chairs

ergonomics of, 129-130 insulating, 236 make a seat cushion, 130

Chancroid, 389

Change the workplace strategy, 9 Chemical baths, 166, 187

Chemicals

alternative names for, finding, 465 CAS number of, 180, 465 combinations of, as untested, 151, 154, 179, 462 index of chemical names, 467-473 properties of, 178, 179, 182 reactivity of, 182 also see Chemicals listed by

name; Dust; Exposure to chemicals; Health problems caused by chemicals; Metals; Protecting workers from chemicals; Radiation; SDS (Safety Data Sheets); and go to Appendix B: Common chemicals and materials. 461-529

Chemicals listed by name

2-mercapto benzthiazole (MBT). 112, **501–502** 2-methoxy 1-propanol, **527-528** 2-methylpentane, 520-521 2,2-dimethylbutane (neohexane), 520-521

1-methoxy 2-propanol, **527–528**

2,2-mercaptodibenzothiazyl disulphide (MBTS), **501–502** acetic acid, 475-476 acetone, 70, 105, 116, 382, 529 aluminium hydroxide. 491–492 ammonia, 116, 479-481 ammonium chloride, 479-481.

493-495 ammonium hydroxide, 479-481

anthraquinone dyes, 486 antimony trioxide, 112, 491-492 aromatic amines, 163 arsine, 73, 163, 482-484 azo dyes, 93, 163, 486-487 benzene, 70, 93, 116, 163, 190, 382. **522-523**

bisphenyl diisocyanate, 498-500 butyl acetate, 70, 526 butyl benzyl phthalate (BBP),

508-510

carbon monoxide, 174 carbon tetrachloride, 190, 382,

524-525 chlorine bleach, 101, 174,

477-478

cyclohexane, 116, **520–521** di(2-ethylhexyl)phthalate,

508-510

diborane, 73, 482-484 dibutyl phthalate (DPB), 508-510 dichloropropane (DCP), 163,

524-525

diethyl phthalate (DEP), 508-510 dimethyl formaldehyde (DMF), 116

dimethyl phthalate (DMP), 508-510

dioctyl phthalate (DOP), 508-510 dioctyl terephthalate, 510

ethyl acetate, 116, 526 ethyl alcohol (ethanol), 105,

518-519 ethylene glycol butyl ether, 527-528

ethylene glycol ethyl ether,	polyvinyl chloride (PVC), 83, 190,	Child care
527–528	511–513	community campaigns for, 292
ethylene glycol methyl ether,	potassium permanganate bleach,	in factory, 379
527-528	101, 477–478	lack of, 379
ethylene vinyl acetate (EVA), 113,	red phosphorus, 491-492	at organizing meetings, 290
511-513	rosin, 81, 190, 493–495	sharing with friends and family,
formaldehyde, 70, 94, 163, 496 -	sodium tetraborate decahydrate,	403
497	493–495	Child labor, 350
formic acid, 475–476	styrene, 163, 522–523	•
heptane, 520–521	sulfur dyes, 486–487	causes of, 297, 353–354, 356
hexamethylene diisocyanate	tetrabromobisphenol A (TBBPA),	education and, 352, 354, 357–358
(HDI), 498–500	489–490	ending of, 349, 356–358
	100	harms to children, 350–353, 442
hexane, 88, 382, 520–521	tetrachloroethylene (PERC), 52,	labor law governing, 350, 355,
hydrochloric acid (HCL), 475–476 ,	105, 116, 163, 524–525	356, 358
493–495	toluene, 70, 105, 116, 117, 163,	limited work allowable, 350, 353
hydrofluoric acid (HF), 66 , 262,	382, 522–523	orphans and, 354, 357, 358
475–476	toluene diisocyanate (TDI),	Children
hydrogen sulfide, 174	498–500	burns of, 217
indigoid dyes, 486-487	triarylmethane dyes, 486–487	chemical harms to, 245, 351, 352,
isobutyl acetate, 526	trichloroethane (TCA), 105	441
isophorone diisocyanate (IPDI),	trichloroethylene (TCE), 52, 105,	harmed more than adults, 245,
498-500	116, 163, 187, 382, 524–525	350–351, 438
isopropyl alcohol (IPA), 88, 93, 105,	triphenyl phosphate (TPP),	
181–182, 517–519	491–492	rights of, 355, 358
krypton (Kr), 506–507	urethane, 511–513	also see Breastfeeding; Child
melamine cyanurate, 491–492	vinyl acetate, 511–513	care; Child labor; Family;
methyl alcohol (methanol),	vinyl chloride, 163, 511–513	Pregnancy
517–519	xenon (Xe), 506–507	Chlamydia, 389
methyl butyl ketone (MBK), 529	xylene, 70, 116, 163, 382, 522–523	Chlorinated hydrocarbon
methyl chloroform, 524–525	zinc-2-mercaptobenzothiazole	solvents
methylene chloride (DCM), 105,	(ZMBT), 501–502	bans of, 190
116, 163, 174, 187, 188–189, 190,		carbon tetrachloride, 190, 382,
	zinc chloride, 493–495	524–525
524–525	Chemical spills	dichloropropane (DCP), 524–525
methyl ethyl ketone (MEK), 116,	Bhopal leak, 441–442	methyl chloroform, 524–525
117, 529	clean up a mercury spill, 71	
methyl isobutyl ketone (MIBK),	clean up a small spill, 173	methylene chloride (DCM), 105,
529	electronics factories and, 67, 71	116, 163, 174, 187, 188–189, 190
mono ethyl arsine, 484	emergency plan should be in	524–525
napththalene diisocyanate (NDI),	place for, 67, 173	reduction of exposure, 517
498–500	leaving the area rapidly, 67	tetrachloroethylene (PERC), 52,
neon (Ne), 506–507	prevention of, 172	105, 116, 163, 524–525
nitric acid, 475–476	reporting, 173	trichloroethylene (TCE), 52, 105,
phenol formaldehyde (PF) resin,	respirator use for, 268	116, 163, 187, 382, 524–525
70, 511–513	SDS information for each	Chlorine bleach, 101, 174,
phosphine, 73, 482–484	chemical, 181, 182	477-478
polybrominated biphenyls (PBBs),	slip/fall prevention, 241	first aid for exposure to, 174
74, 489–490	supplies required for clean-up, 173	Chromium hexavalent, 503-505
polybrominated diphenyl ethers		bans in electronics, 74, 190
(PBDEs), 74, 489–490	Chemical splashes see Skin	electronics factories and, 74
polychlorinated biphenyls (PCBs),	contact with chemicals	
163, 489–490		harms caused by, 163 shoe factories and, 108
polyurethane (PU), 113, 116,		
511–513		Citrate esters, 510

Clothing

bloody, clean up, 204 cleaning, to protect family, 185, 274, 275 for cold temperatures, 237 cotton underclothes, 234 electronics factory requirements not protective, 65, 274 extra, supplied in factory, 177 for garment factory work, 95 hat to prevent glare, 231 for hot temperatures, 233, 234 machine safety and, 165, 193 removing after chemical splash, 165 with skin rash, 158 also see Personal protective

Coalitions, 13

equipment

anti-discrimination, 315 anti-violence, 332, 335 homeworkers' rights, 303 safe waste disposal, 89 stress reduction and, 402 ventilation/air pollution, 257 wages and hours, 292 also see Organizing for better iobs

Codes of Conduct

anti-violence, 334 days off, 290 hired monitors finding few problems, 5 as affects worker organizing, 14 ventilation, 257

Cold, common, 373, 414

Cold see **Temperature** inside factory

Combinations of chemicals, as untested, 151, 154, 179, 462

Community

allies, relationships with, 59, 60 consumer alliances, 4, 303, 383 drinking water safety, 185-186 food vendors, 408 gardens, 292, 411 gender role changes and, 396 HIV support and, 422 homeworkers' groups, 301 as information source, 180, 183 map of, 41, 44–45, 439 meals with, 412 mental health issues, 396

pollution survey, 443-444 SDS, help getting, 180 stress reduction and, 402 support groups of, 31, 371, 449 TB education and, 429 also see Coalitions; Family; Nongovernmental organizations; Pollution; Sharing with neighbors

Community fire alarm, 299 Compact fluorescent bulbs, 71, 231

Company records

access to, by law, 32 of accidents and health problems, by law, 46 as information source for worker health promoters, 31, 46

Complaints to government agencies, 62

Compressed air, moving dust with, 221

Computers see Electronics factories

Condoms

after rape to protect partner, 328 for family planning and STI prevention, 386, 389 HIV prevention using, 421 migrant worker access to, 342

Conjunctivitis ("pink eye"), 373 Consumer alliances with workers, 4, 303, 383

Contact lenses, 261

Containers for chemicals

disposal of, 185-186 grounding wires for, 172 home storage of, 299 household containers used to carry, labeling of, 299 label, 179 reducing fumes from, 166 storage and management of, 172, transferring chemicals between, 172

Contraception see Family planning

Contract workers, 285

Conventions see International Labour Organization (ILO); **United Nations (UN)**

Conveyor systems, 138

Copper, 82, 83, 503-505 electronics factories and, 74, 76, 78, 80, 83

Cotrimoxazole, 363, 388, 422 Cotton dust, 97–98, 220

Cyanide, 174

Cyclohexane, 116, 520-521

D

D and **C**, 387 Danger, defined, 17 **DBCP**, 383

DCM see Methylene chloride DCP see Dichloropropane **Deafness** see **Hearing loss**

Death

hexane exposure, 88 murders of workers and organizers, 320, 434, 460 suicide, 85, 399

Debt

low wages as forcing, 285 migrant workers and payment of, 285, 337, 343 savings groups to pay off, 285

Decibels, 225

Dehydration drink, 235, 373 **Deportation**, as threat against migrants, 318, 340, 341, 346

Depression, 399

DEP see **Di-ethyl** phthalate Dermal contact see Skin contact Design

of chemical rooms, 172 of electronics, 83, 90, 91, 437 of factories, 4 for fewer chemicals, 151, 164 of products by brand, 5, 64 sustainability and, 90, 91, 119 of tools, 134-135

Development toxicity see Reproductive health problems, chemicals causing



Di(2-ethylhexyl)phthalate, 508–510
Diabetes , 233, 410
Diarrhea, 373
Diborane, 73, 482-484
Dibutyl phthalate (DPB), 508-510
Dichloropropane (DCP), 524-525

Diet see Food Digestive problems, 410 Dimethyl formaldehyde (DMF),

Diethyl phthalate (DEP), 508-510

Dimethyl phthalate (DMP), 508-510

Dioctyl phthalate (DOP), 508-510 Dioctyl terephthalate, 510 Disabilities, people with

discrimination against, 304, 305 health care access for, 364 social insurance for, 370 as target of violence, 306

Discrimination

divisions among workers and, 307, 308, 318, 423 harm to self-esteem, 306, 316 HIV and, 308, 423 humiliating treatment, 306 law and, 309, 315, 426 migrant workers and, 304, 305, 306, 307, 336, 340 organizing to overcome, 314 power dynamics on the job, 310-311 power of workers to overcome, 316-317 pregnant or married women, refusal to hire, 376, 377-378 promotions, 305 racism among workers and, 308 religion and, 304 reporting discrimination, 315 right to freedom from, 309 sexual harassment as, 329 union organizers as target of, 12, by unions, 308, 314 violence and, 306, 307

and women as majority of workers, 305 and women's status in community, 312-314

Dizziness, 153, 245

DMG see Dimethyl formaldehyde DMP see Dimethyl phthalate

Domestic work, 454 Dopant gases, 73, 74, 482-484 arsine, 73, 163, 482-484 diborane, 73, 482-484 dangers from, 73-74, 159 mono ethyl arsine, 484 phosphine, 73, 482-484 reduction of exposure, 482 DOP see Dioctyl phthalate

Dormitories see Housing **DPB** see **Dibutyl** phthalate Drills, hand-held, 135

Drugs, misuse of, 280, 400 Dust

brown lung (byssinosis, from cotton dust), 97-98, 220 cleaning up by vacuum or sweeping, 221, 250 clean work area frequently, 97, 111, 167, 250 compressed air not for cleaning, 221

as electronic factories danger, 220 enclosure of machines to reduce, 97, 250

as fire danger, 220 as garment factories danger, 97-98, 219 HIV and vulnerability to, 425

homeworkers and, 300 machine vents clogged by, 206 mouth/belly exposures to, 154 reducing amount of, 168 shoe factories and, 111, 114, 118 signs of breathing in, 245 signs of too much in factory, 218 silicosis, 102-103 TB risk and, 429

also see Local exhaust ventilation: Masks and respirators; Ventilation

Dust-proof clothing, 87, 274

Dyes, 485-487

anthraquinone dyes, 486 azo dyes, 93, 163, **486–487** bans of metals in, 190 cancer and, 93 first aid for exposure to, 174 garment factories and, 93-95 indigoid dyes, 486-487 natural vs. synthetic, 487 reduction of exposure, 485 shoe factories and, 118 soap and water for removal from hands, 93 sulfur dyes, **486-487** triarylmethane dyes, 486-487

Ξ

Ear protection, 224, 225, 228 earmuffs, 228, 271 earplugs, 228, 271 earplugs, inserting, 272 making earplugs from cotton, 271 wearing double protection, 271 also see Hearing loss; Noise

Economic Zones see Export processing zones

Education

adult, 292 child labor and, 352, 354, 357-358 government grants to ensure, 357, 358 legal requirements for, 355, 358 women/girls denied access to, 305, 353, 354

Elbow massage, 147 **Electricity dangers**

extension cords, 208 fire danger, 206-207 first aid for electric shock, 209 inspections to prevent, 205-206, maintenance and repair, 118, 208

overloaded circuits, 206 prevention of, 205-206 shoes and, 275 static electricity see Anti-static

clothing and protection water and, 206, 209

wiring, 206

Electronics assembly at home, 83

wages, 48, 284, 305

Electronics factories

appear safe but not, 65

banned chemicals, 74, 82, 84, 190, 383 cleanrooms, 249, 274 design of products, 83, 90, 91, 437 improving conditions, 64, 91 recycling of products, 90, 91 respirator requirements, 78 unionizing and, 15, 53 ventilation systems, 67, 72, 77, 78, 81, 246, 248, 249 waste disposal, 89, 170, 440 water pollution, 89, 170

Electronics factory dangers

processes

also see **Electronics factory**

dangers; Electronics factory

chemical burns, 66 chemical exposures, 66, 67, 381, dopant gases, 73, 74 dust, 220 etching, 69, 72, 78 fiberglass, 76, 82 flame retardant chemicals, 75, 83 heat and fire, 73 metals, 74, 76, 78 photomasking, 69–71, 77 repetitive strain injuries, 75 RF radiation, 72, 73, 74, 514-515 solder and flux see Soldering spills of chemicals, 67, 71 UV lights, 71 X-rays, 74

and go to Appendix B, 474–529

Electronics factory processes

assembling products, 83, 85-87 chips, making, 69, 75 cleaning, 66-68, 78, 88 encapsulation, 75 final surface finish, 79 inspection and testing, 75, 82, 89 integrated circuits (ICs), 75 legend, 79 packing and shipping, 75, 89 plating, 78-79 printed circuit boards, 76-82 soldering and wire bonding, 75 solder mask, 79 tin/lead removal, 79 trimming and forming, 75 wafer making and cleaning, 66-74, 381

Emergency family planning, 327, 387

Emergency plans

for chemical releases, need for, 67 for injuries on the job, 361

Emergency services, for spills, 173 Emphysema, 171

Employer organizations, 14, 60 trade agreements, 14, 459, 460

Enclosure of dangers, 9

glue and primer workspaces, 115 noise reduction and, 111, 226 sandblasting safety, 102 spray booth to reduce mists, 168 also see **Enclosure of machines**

Enclosure of machines

chemical and dust containment, 250 dust protection, 97 hot temperature protection, 104, 114 to keep out hair, clothing, and body parts, 99 noise control, 111, 226 vapor/mist/fumes reduction, 169 ventilated box for, 169

Environment

employer organizations for, 14 in SDS, effects on, 182 trade agreements restricting protections for, 459 also see Bans on chemicals;

Pollution Ergonomics

analyze workstation, 86, 125 body posture, movement, and sitting, 142, 148 chairs, 129-130 lifting and carrying, 136–140 lighting, 131, 231 measurement of problems, 48 prevention of repetitive strain injuries, generally, 110, 122, 124 strain and pain care, 149 stretches and massage, 143–148 survey to improve, 126 switches and pedals, 132 tables, 127-128 tools, 133-135 work conditions reducing injuries, 87, 99, 141 workstation improvements, 131

Ester solvents

butyl acetate, ethyl acetate, 116, isobutyl acetate, reduction of exposure, 517

Etching dangers, 69, 72, 78 Ethyl acetate, 116, 526 Ethyl alcohol (ethanol), 105, 518–519

Ethylene glycol butyl ether, 527–528

Ethylene glycol ethyl ether, 527–528

Ethylene glycol methyl ether, 527–528

Ethylene vinyl acetate (EVA), 113, 511–513

European Union Restriction of Hazardous Substances Directive (RoHS), 74, 82, 84

EVA see **Ethylene** vinyl acetate

Exercises

for eyes, 75 for posture improvement, 148 for relaxation of stress, 404 *also see* Ergonomics

Exhaustion of workers, 279

Exhaust vents see Local exhaust ventilation

Exit doors

fire safety and, 48, 118, 212 locked, fatal fires and, 100, 214 locked, heat of factory and, 258

Export factories

design of, 4
as focus of book, 2
history of, as information source, 32
map of, 41, 43
"no violence" policy, 334
"race to the bottom," 3, 4, 289
records of see Company records
women as majority of workers in, 12, 305, 364
also see Codes of Conduct;
Electronics factories: Food:

also see Codes of Conduct; Electronics factories; Food; Garment factories; Global companies/brands; Hours; Housing; Organizing for better jobs; Shoe factories; Wages



Export processing zones

hours and overtime law not applicable to, 291 housing and, 433, 434 transportation and, 434–436 union organizing in, 50, 53

Exposure limits on chemicals

levels stated safe are not safe, 156 proven-safe chemicals, 179 SDS stating, 182 set higher for workers than for community, 151 tiny amounts as unsafe, 155 uniform standards needed, 151 also see Testing chemicals and exposures

Exposure to chemicals

harmful, some forms more than others, 152

homeworkers and dangers of, 299 how exposures happen see

Breathing in chemicals; Eyes, chemical contact with; Mouth/ belly chemical exposures (ingestion); Skin contact with chemicals

identification of chemicals, 152 irritation as first sign, 158 leave area/report problem, 153,

long-term see Exposures over time

measurement of, 155-156 signs of, generally, 153, 158 also see Chemicals: Chemical spills; Containers for chemicals: Exposure limits on chemicals; Exposure to chemicals over time; Health problems caused by chemicals; Testing chemicals and exposures

Exposure to chemicals over time

accumulation in the body, 72 reporting concerns about, 153 routine daily exposures, 155

and go to Appendix B, 474–529

Extension cords, 208

Extractors see Local exhaust ventilation

Eye protection

about use of, 262 contact lenses and, 261 electronics factories and, 78, 87 face shields, 87, 114, 200, 261 goggles, 261 prescription glasses not good enough for, 261 recycling electronics and, 90 safety glasses, 200, 261

Eyes

conjunctivitis ("pink eye"), 373 contact lenses, 261 electronics inspection job and, 75.89 exercises for, 75 lighting and, 229-231 machine injury to, 204 prescription glasses, 231, 262 also see Eye protection; Eyes, chemical contact with

Eyes, chemical contact with

from breathing in chemicals, 67, eve wash stations, requirements for, 175, 183, 414 how exposures happen, 154 reduction of exposure, 164-165 also see Eye protection; and go to **Appendix B,** 474–529

Face shields, 87, 114, 200, 261 Falling objects, 238, 240 Falls, prevention of, 238–241 Family

gender role changes and, 396 homeworkers and affect on, 297 men sharing care of, 297, 313 protect from chemicals while cleaning work clothes, 185, 274, women's second shift of caring for, 312, 313

also see Children; Housing; Sharing with neighbors; Transportation

Family planning

chart comparing methods of, 386 defined, 385 emergency, 327, 387 also see Abortion; Condoms

Fear

of HIV, 423-424 of retaliation, 331 stress of, 391, 397 of violence, facing the fear together, 321, 391

fungal infections, treatment of, machine safety to protect, 200 also see Shoes and boots

Fertility awareness (family planning method), 386

Fertility problems, 161, 233, 381, 383

Fiberglass, 76, 82 Fire alarms, 212

community alarm, 299

Fire extinguishers, 118, 213, 298 homemade, 216

Fire dangers

burns, 217 chemical explosions and, 172, 442 dopant gases as, 73 dust, 220 electricity dangers as, 206-207 garment factories and, 96, 100, 105, 207, 214 homeworkers, 215-216, 298-299 measurement of, 48 prevention of, 211–212 requirements for fire to burn, 213 responsibility for, 214–215 SDS lists for each chemical, 181 shoe factories and, 118 smoke inhalation, 217 solvents as, 212, 517 spraying chemicals, 168 static electricity see Anti-static clothing and protection

Fire safety

first aid, 217 for homeworkers, 215-216 law, 210-211 preparation for, 212-213 for storage of solvents, 172, 212

First aid

bleeding, 203-204 breathing in a chemical, 174 breathing stopped, 174, 209 burns from chemicals, 66 burns from electricity, 209

burns from fires, 217 burns from hot water or oil, 217 burns from machines or hot processes, 204, 217 cold temperatures in factory, 237 cardiopulmonary resuscitation (CPR), 209 cuts and scrapes, 204 deep cuts or body part cut off or crushed, 203 electric shock, 209 eye contact with chemicals, 175 eye washes, methods for, 175 frostbite, 237 glove protection for assistants, 203 heart stopped, 209 heat illness, 235 hydrofluoric acid (HF) burns, 66 list of first aid instructions, xii machine injuries, 203-204 mouth/belly exposure to chemicals, 176 muscle cramps caused by heat, 235 objects stabbed into eye or body, 204 oxygen given, 174 plan for, garment factories and, 96 rape, 327-328 rescue breathing, 174, 209 SDS lists for each chemical, 181 shock (medical), 203 showers, methods for, 175 skin contact with chemicals, 175 skin contact with HF (hydrofluoric acid), 66 skin rashes, 158 unconscious person, 174, 176, 209

First aid supplies needed in factory

Treatment

also see First aid supplies

needed in factory; Health

centers/health providers;

air monitors with alarms, 177 for chemicals used, 177 committee for, 177 drinking water, 177 for electrical dangers, 209 emergency response plan for factory, 183, 361 eye washes and showers, 175, 183, 414

kits throughout factory, 361 protective equipment, 165, 177 spare clothing, 177 training for workers and supervisors, 177, 361

Flame retardants, 488-492

in products and clothing, 75, 83, 94, 112 reduction of exposure, 83, 488 also see Flame retardants. halogenated; Flame retardants, non-halogenated

Flame retardants, halogenated, 163. **488-490**

bans of, 190, 488

489-490

polybrominated biphenyls (PBBs), 74, **489-490** polybrominated diphenyl ethers (PBDEs), 74, 489-490 polychlorinated biphenyls (PCBs), 163, **489-490** replacing with less-toxic, 83 tetrabromobisphenol A (TBBPA),

Flame retardants, nonhalogenated, 488, 491-492

aluminium hydroxide, **491–492** antimony trioxide, 112, 491-492 inorganic, 491 melamine cyanurate, 491-492 nitrogen-based, 488, 491 phosphorous based, 488, 491 phosphorous-based, 488, 491 red phosphorus, 491-492 triphenyl phosphate (TPP), 491-492

Floors

falls, prevention of, 241 insulating from cold, 236 vehicle injury prevention, 242

Fluorinated hydrocarbon solvents, 72, 190

Fluxes, 493-495

also see Soldering

ammonium chloride, 479-481, 493-495 hydrochloric acid (HCL), 493-495 and lead-free solder, 82 rosin, 81, 190, 493-495 sodium tetraborate decahydrate, 493-495 zinc chloride, **493–495**, **494–495**

Food

benefits to factory of healthy food and workers, 406 chemical containers should never be used for, 171, 186, 299 chemical exposures while eating, 154, 170 clean place to eat/store, 406, 408 eating well for little, 411 factory providing, 406, 407 fish, contaminated, 409, 440 food safety, 406, 407, 408 getting enough food, 408 goals for workplaces, 405 growing food, 292, 411 hand wash facilities, 406, 408 home-cooked, bringing, 411 malnutrition and child labor, 352 night markets, 280, 292 overwork and poor nutrition, 280 processed junk food, 280, 410 sharing work of, 292, 412 stress reduction and, 403 traditional foods, 411 variety of healthy foods, 408-409 vendors outside the factory, 408 work clothes, removal while eating, 406

also see Breastfeeding

Food safety, 406, 407, 408

Forced labor as banned, 283

mandatory overtime as, 283, 293-294

Forklifts, 138, 240 Formaldehyde, 70, 94, 163, 496-497

Formic acid, 475-476 Frostbite, 237 Fungal infections, 275

G

Garment factories

Better Work program and, 5, 7, 456 changing fabrics to improve, 95 improving conditions, 92, 95 protective equipment for, 95, 96 also see Garment factory dangers; Garment factory processes

Garment factory dangers

acid-washing, 101, 477–478

antibacterial treatments, 94 brominated flame retardants, 94 cutting tools, 96 dust exposure, 97-98, 219 dves, 93 fainting, 6, 456 fire, 96, 100, 105, 207, 214 formaldehyde, 94 lighting inadequate, 100 machine injury, 99 nanoparticles, 94, 262 noise, 100 repetitive strain injuries, 99, 123 sandblasting (silicosis), 101–103 screen printing, 104 solvents for cleaning garments, 104-105, 382 solvents for cleaning hands, 93

Garment factory processes

cloth dyes and chemicals, 93–95 cutting the fabric, 96, 207 drying and pressing, 104, 105 finishing garments, 101–104 quality control, 104–105 sewing, 99–100, 194–196

and go to Appendix B, 474–529

Gender issues see Women's rights

Genital herpes, 389

Genitals see Sexually transmitted diseases

Glasses see Eye protection; Eyes Global companies/brands

bargaining with governments, 3, 14, 22 design of product, 5, 64 dictating terms to factories, 3, 4 fire prevention, resistance to, 214–215 independent monitors hired by, 5 mandatory overtime demanded by, 283 productivity of workers and labor compliance by, 453 public relations and, 5, 59, 453 responding to pressure for improved conditions, 64, 103,

Codes of Conduct

248, 290, 407

"the race to the bottom," 3, 4, 289 water pollution cleanup, 106 also see Employer organizations; Export factories

about using gloves, 264

Gloves

allergies to latex gloves, 265 changing if wet or covered with chemicals, 200, 264 checking for rips or holes, 264 choosing correct glove, 262-264, for cold workplaces, 237 cuts and heat protection with, 265 disposal as dangerous waste, 262 double gloving, 262, 263, 264, 265 for electronics factories, 87 for first aid assistants, 203 for garment factories, 94, 95, 96. 264 machine safety and, 200, 262, 264 nanoparticle protection using, 94, 262 recycling electronics and, 90 remove safely, 170, 264 for shoe factories, 114

Gloves, types of

also see Gloves, types of

butvl. 263 cotton glove liner, 264 disposable, 263 ethylene vinyl alcohol, 513 fabric, 265 latex (natural rubber), 263, 265 leather, 200, 265 metal mesh, 96, 200, 265 neoprene, 263 nitrile, 262, 263 norfoil, 263 polyvinyl alcohol, 263 polyvinyl chloride (PVC), 263 reusable, 263 Silver Shield, 505 Viton, 263

Glues and primers, 115–117 water-based, 115, 116

Glycol ether solvents

1-methoxy 2-propanol, **527–528** 2-methoxy 1-propanol, **527–528** bans of, 70, 190 ethylene glycol butyl ether, **527–528** ethylene glycol ethyl ether, **527–528**

ethylene glycol methyl ether,

527-528

isopropyl ether, 528 phenyl ether, 528 propyl ether, 528 reduction of exposure, 517

Glyoxal resin, 513

Gold, 74, 90

Gonorrhea, 389

Government

brands bargaining with, 3, 14, 22 building relationships with, 60 and causes of health problems, 22 complaints to agencies of, 62 electronic factory improvements, 64 fire safety and, 215 as information source, 31 international conventions, ratification of, 452, 453 labor inspectors, 5 migrant labor law, 347 pollution cleanup and, 445 responsibility for chemical safety and monitoring, 151, 155 TB treatment supervised by, 430 transportation and, 435, 436 ventilation and, 257, 258 also see Bans on chemicals

Grounding wires for storage, 172 Grounding wrist cords, 82 Guards see Machine guards

Н

Hair, machine safety and, 193, 200
Halogens see Flame retardants,
halogenated
Hand-arm vibration (HAV), 109
Hands
lotion to protect from chemicals,

machine safety protection, 109–110, 200 massage of, 146–147 stretches for, 144 tool ergonomics fit to, 133 vibration-induced injuries, 109, 236 also see **Gloves**



responsibility for worker safety, 5

rules for export factories see

Hand trucks, 138 Hand washing

food breaks and, 406, 408 homeworkers and, 299 keeping areas clean, 415 often, to prevent exposure, 95, 111, 170, 415 placement of stations in factory, 413, 415 skin rashes and, 158 soap and water instead of solvents, 93, 95, 415 with solvents, 93 also see Toilet facilities; Water

Hard hats, 240 **HAV** see **Hand-arm** vibration

(HAV) **HCI** see Hydrochloric acid **HDI** see **Xexamethylene**

Headaches, 245, 279, 410

Head injury, 204

diisocyanate

Health and safety committee (workers and management), 4, 9, 24, 49, 406, 456, 459

Health care access child labor and lack of, 354 cost of care, 360, 362, 367 disabilities/special needs, workers with, 364 in factory, 342, 360-361, 364 garment factories and need for, 96 goals of, 359 government-run, 342 how to get better care, 366-367 lack of, 362 law guaranteeing, 359 loss of job for work-related injuries and illness, 362 migrants and need for, 342 privacy and, 368, 421 recognition of work-related injuries and illnesses, 17, 68, 162, 362, 363, 364–365, 369–370

right to health care, 365 as union priority, 370 also see Health centers/health providers; Health problems; Worker health promoters: Workers' compensation systems

respect for patients, 368

Health problems

analyzing causes of, 21–22 general, not caused by work, 373 homeworkers and, 297 mapping of pollution to show clusters of, 41, 44-45, 439 survey to identify, 372 unhealthy foods causing, 410 also see Health problems caused by chemicals: Mental health problems; Rotation of jobs; Signs of health problems; Specific illnesses and problems

Health problems caused by chemicals

acute health effects, 157, 181 allergies, 159 asthma and other breathing problems, 160, 171 chemical burns, 66, 159 chronic health effects, 157, 181 HIV and vulnerability to, 425 improving when you are away from the chemical, 158 irritation of skin, eyes, nose and throat, 158 mental health issues, 394 SDS lists for each chemical, 181 skin rashes, 158 tell health workers about your chemical exposures, 157 also see Cancer, chemicals causing; Internal organs harmed by chemical exposures: Reproductive health problems, chemicals causing; and go to Appendix B: Common chemicals and materials, 461–529

Health problems, signs of

alcohol/drug use, 400 anxiety, 398 asthma, 160 from breathing chemicals, 67, 73, 81, 115, 153, 245 burnout, 398 from cadmium exposure, 84 from chemical exposure, generally, 153, 158 child workers and, 353 depression, 399 from dopant gases exposure, 73 from dust exposure, 218

hearing loss, need for protection, 87, 225 from fabric dust exposure, 97 genital infection after rape, 327 from glues and primers exposure, 115 heat illness, 233, 235 mask/respirator not working, 270 mental health problems, 397, 399 panic attacks, 398 sexually transmitted diseases, 388 shock, 203 from soldering, 81 urinary tract infections (UTIs), 328 vision problems, 230 from water, need for, 414

Hearing loss

from aging vs. noise, 225 noise measurement and, 225 permanent, 223, 225 ringing in ears (tinnitus), 223, 225 signs noise is too loud, 225 testing workers for, 224, 225 also see Ear protection; Noise

Heart problems, 72, 233, 410 Heat exhaustion, 245

Heat see Temperature inside factory

Heat stroke, 233

Virus)

Heavy metals see Metals HEPA respirators (N-100), 266 Hepatitis B and C, 328 Heptane, 520-521 Hexane, 82, 382, 520-521 HF see Hydrofluoric acid High blood pressure, 233, 410 **HIV** (Human Immunodeficiency

antiretroviral medicine (ART), 328, 419, 422, 427 care and treatment, 422 as cause of child labor, 354 community support and, 422 counseling for, 422 discrimination and, 308, 423, 426 health care access and, 364 how it is not passed, 420, 421, 424 how it is passed, 420 and migrant workers, 342 other STIs and risk of, 421 pregnancy and, 420, 422

preventive treatment for, 328, 427 rape and, 328, 421
signs of, 388, 419
stigma and, 423
TB and, 419, 425, 429
testing, 328, 372, 388, 419,
421–422
work dangers for workers with,
425
workplace programs for, 418,
426–427

Holidays, paid, 281, 282, 286, 451 Homeworkers

and chemicals, 299 costs paid by, 295-296 and dust, 300 electronics assembly, 83 family and, 297 fire safety and prevention and. 215-216, 298-299 garment work, 101 hand washing and, 299 health problems of, 297 hours worked by, 297 noise and, 300 reasons for working at home, 295 repetitive strain injuries and, 110, 300 riahts of, 302 stress and, 300 support groups for, 301 unions and, 303 wages of, 295, 296 work dangers, 298-300

Hours

Codes of Conduct requirements, 14 days off, 290 drugs and, 280 exhaustion and, 279 holidays, paid, 281, 282, 286, 451 homeworkers and, 297 labor law enforcement, 291 night shifts, 281 organizing against, 290-294 poor nutrition and, 280 responsibility of employers for, 278 right to fair working hours, 281 stress and, 279 also see Breaks: Overtime:

Housing

fire safety and, 212 goals for health and, 432 group housing stresses, 394, 395 and mental health issues, 394 migrant workers and, 341 need for improvements in, 433 TB spread and, 428, 429 transportation and, 434–436 worker-run cooperatives, 434 also see **Food**

How to, list of, *xii* Human rights

defined, 448 employer organizations and, 14 living wage as, 289 also see **United Nations**

Hydration drink recipe, 235, 373 Hydrochloric acid (HCI), 475–476, 493–495 Hydrofluoric acid (HF), 66, 262,

475–476 Hydrogen sulfide, 174

Hypertension see High blood pressure

Icepacks, 66, 149

Implants (birth control), 386 Independent monitors, 5 Index of chemical names,

467-473

Indigoid dyes, 486–487 Ingestion see Mouth/belly chemical exposures

Inhalation see Breathing in chemicals

Injections (birth control), 386
Inspections

of chemical storage/transport, 172 of electricity, 205–206, 208 and garment factory fire, 100 labor, right to, 30 of machine guards, 194

International campaigns, 59, 292, 294

International Labour Organization (ILO)

Better Work program, 5, 7, 456 complaints to, 455 conventions by subject, *xi* conventions by title, 457–458 Core Labor Standards, 51, 454 proposing new conventions, 454 ratification (and adaptations) of conventions, 452, 453 role of, 5, 11, 12, 452 symbol of, 11 website for, 457

International trade agreements, 14, 459

Internet as information source, 32, 180, 464

IPA see Isopropyl alcohol
IPDI see Isophorone diisocyanate
Isobutyl acetate, 526

Isocyanates, 498-500

bisphenyl diisocyanate, **498–500** first aid for exposure to, 174 isophorone diisocyanate (IPDI),

498-500

napththalene diisocyanate (NDI), **498–500**

reduction of exposure, 498 toluene diisocyanate (TDI),

498-500

as water-based but toxic, 115, 498 xexamethylene diisocyanate (HDI), **498–500**

Isophorone diisocyanate (IPDI), 498–500

Isopropyl alcohol (IPA), 88, 93, 105, 181–182, **517–519**

Isopropyl ether, 528 IUD, 386

Ketone solvents

acetone, 70, 105, 116, 382, **529** methyl butyl ketone (MBK), **529** methyl ethyl ketone (MEK), 116, 117, **529**

Wages

methyl isobutyl ketone (MIBK),

reduction of exposure, 517

Kidney cancer, 163 Krypton (Kr), 506-507

Language of workers

chemical information/training in, 152 labels of chemicals in, 179 SDS in. 115, 180 workers' groups based on, 13

Latex gloves, 263

allergies to, 265 nitrile as substitute for, 265

LD50. 182

Lead. 503-505

bans of, 74, 78, 82, 190 child labor and, 351 electronics factories and, 74, 79, 80 harm caused by, 163 how exposures happen, 170 old shoe disposal and, 119 recycling electronics and, 442 reproductive problems and, 382 in solder, 80, 81 toxic in tiny amounts, 155

Learn about chemicals used in your factory

ask other workers, 178, 180 CAS number and, 180, 465 community resources, 180, 183 do not smell to identify, 152 information sheets see SDS

(Safety Data Sheets)

Internet sources, 180, 464 labels on containers, 179 properties of chemical used to help find name, 178, 179 the right to know, 178, 183-184

and go to Appendix B: Common chemicals and materials,

461-529

Leather dust, 111

Leather tanning, 108 also see **Shoe factories**

Legal cases by workers, 62, 68, 98

Legal aid clinics, 292, 341

Leukemia, 68, 163

Lifting and carrying, 136–140

danger in testing electronics, 89 UV exposure, 71, 163, 261,

514-516

Lighting

ergonomics of, 131, 231 danger in garment factories, 100 improvements to, 229, 231 mercury spills from broken bulbs,

signs of problems with, 230

Liver cancer, 163

Living wage

as human right, 289 lack of, as cause of child labor, 354 minimum wage not a living, 288 also see Minimum wage; Wages

Local exhaust booths, 251

Local exhaust ventilation (extractors)

chemical reduction in air with, 168 dust protection using, 221 extractor hoods, 251 garment factories and, 97, 219 jobs and processes requiring, 250 local exhaust booths, 251 local extractor vents, 251 maintenance and repair of, 251 shoe factories and, 111, 114 smoke test of air flow, 252 types of equipment used for, 251 use personal protective equipment if not working, 251 also see Enclosure of machines;

Ventilation

Local extractor vents, 251 Lock out for machine safety, 201-202, 208

Lung problems

lung cancer, 163, 171, 266 lung edema, 29, 160, 174 as sign of breathing in chemicals or dust, 153, 245 also see Asthma; Breathing

in chemicals; and go to **Appendix B**, 474–529

M

Machine guards

adjustable guards, 197

automatic shut-off devices, 198 fixed quards, 195-196 garment factories and, 96, 99, 104, 194-196 inspection and testing of, 194 interlocking guards, 197 light curtains, 198 movable barriers, 197 presence-sensing mats, 198 reinstalling after repairs and maintenance, 202 restraints and pullbacks, 199 shoe factories and, 110 two-handed controls, 110, 198 when needed, 194 where needed, 193-194

also see Machine safety Machine injuries

clean up following, 204 first aid for, 203-204 garment factories and, 99 HIV and, 425 prevention of, generally, 191 shoe factories and, 109-110, 118 also see Machine safety

Machine safety

clearing jams and debris, 192 ergonomics and, 132 garment factories and, 96, 99, 104 hot processes/dangers, 194, 195, lock out/block out/tag out the

machine, 192, 201-202 maintenance workers following, 69, 110, 201-202 noise reduction, 111, 226-227 personal protective equipment for, 200

shoe factories and, 109-110 training for, 192 vents free from dust, 206 also see Enclosure; Machine

quards: Machine injuries

Magnesium, 488

Maintenance and repair

of carts, 139 chemical exposures and, 69 chemical leak prevention, 69, 172 of chemical storage, 172

money sent home/money

management, 339, 342, 343 recruiters and smugglers, 285, 337-338, 339, 340 relationships with co-workers, 345 rights of, 336, 343, 344 union organizing and, 341, 344, 346, 347-348 violence as reason for leaving, 460 as violence target, 306, 335, 343

wages illegally held by bosses, 335

Minimum wage

Asia Floor Wage Campaign, 289 and child labor, 356 Codes of Conduct and, 14 employers paying below, 282 as human right, 289 ILO Convention on, 289 as not living wage, 288 set very low, 6-7, 14 also see Wages

Miscarriage/stillbirth, 161, 279, 382

Monitors and screens, 83, 89 Mono ethyl arsine, 484 Monthly bleeding

problems with, 161, 279, 381, 382 supplies for, 413, 416 toilet facility requirements, 416

Mouth/belly chemical exposures (ingestion)

glove removal to avoid, 264

first aid for, 176

homeworkers and, 299 how chemical exposures happen, reduction of exposure, 170–171 smoking as source of, 67, 81, 154, 171

and go to Appendix B, 474-529 MSDS see SDS (Safety Data

Murder, of workers and organizers, 320, 434, 460

Muscles

Sheets)

cramps of, caused by heat, 235 icepacks for strain and pain of, 149 massaging and pressing, 146–147 also see Repetitive strain injuries

MVA, 387

Ν

N-95 masks, 166, 267 Nanoparticles, 94, 262 Napththalene diisocyanate (NDI), 498-500

NDI see Napththalene diisocyanate

Neck stretches, 145 Neon (Ne), 506-507

NGOs see Non-governmental organizations (NGOs)

Nickel, 503-505

allergies to, 78, 82, 95 electronics factories and, 74, 76, 78.82 harm caused by, 78, 163 soldering with, 82

Nitric acid, 475-476 Nitrogen

first aid for exposure to, 174 flame retardants and, 488, 491

Noble gases, 506-507 krypton (Kr), 506-507 neon (Ne), **506–507** reduction of exposure, 506 xenon (Xe), 506-507

Noise

child workers and, 351 electronics factories and, 89, 224 garment factories and, 100 health problems and, 223, 225 homeworkers and, 300 measurement of (decibels), 225 reduction methods, 111, 226-228 refusal of company to reduce, 53 ringing in ears after (tinnitus), 223, 225 shoe factories and, 111

signs noise is too loud, 87, 225 soundproofing, 226-227 also see Ear protection

Non-governmental organizations (NGOs)

establishing, as alternative to unions, 449 migration and, 339, 340, 346 offering skills and experience, 37, 126, 257, 292, 315, 318 pressuring to improve work conditions, 7, 84, 258

promoting chemical responsibility,

North American Agreement on Labor Cooperation (NAALC),

North American Free Trade Agreement (NAFTA), 459

Nose exposures to harm

cancers, 163 signs of breathing in chemicals, 245 signs of breathing in dust, 97 also see Breathing in chemicals; *and go to* Appendix B, 474–529

Notebook as record of work and health, 46–47, 81, 158, 178, 286

0

Occupational safety and health (OSH) professionals

advice for, 33 alliances with, 4 belief that small amounts of chemicals are not harmful, 155 bias and, 33 and chemical safety levels as inaccurate, 156 priorities of, 33 as information source, 25, 31, 32, interviewing workers about chemical exposures, 153 and labor and management safety committees, 9 and reproductive health, chemicals' affect on, 381

Organizing for better jobs

defined, 10 and fear of violence, overcoming, 321, 391 as necessary to success of labor law, 448, 449, 450, 452, 460 right to, 451 as risky for workers, 60 safe chemicals see Learn about chemicals used in your factory stress reduction, 401-402 strikes, 15, 407 success over time with, 15 women's involvement in, support for, 290, 312, 314, 315

also see Campaigns; Unions; Women's rights; Worker health promoters; Workers' organizations; Workers' rights

OSH professionals see Occupational safety and health professionals

Overhead sprinkler systems, 213 Overtime

checking pay for, 286, 287 collective contracts and, 291 living wage to replace, 278 mandatory, 6, 15, 85, 214, 278 mandatory, as forced labor, 283, 293-294 piecework forcing, 284 reduction of, as decreasing injuries, 141 stress of, 85, 392 also see Hours; Wages

Overuse see Repetitive strain injuries

Oxygen

chemicals that reduce, 174 emergency first aid with, 174 as treatment, 67

Pain

care for, 149 exhaustion as creating, 279 mental health problems from, 394 also see **Ergonomics**

Paints, low-solvent, 187 Panic attacks, 398 Pap test, 384

Parking lots, 243

Passageways, fire safety and, 213

Passive conveyor, 138 PBBs see Polybrominated

biphenvls

PBDEs see Polybrominated diphenyl ethers

PCBs see Polychlorinated biphenyls

Pedals and switches, 132, 199

PEP see under HIV

PERC see Tetrachloroethylene Permanent press chemicals, 94 Personal protective equipment (PPE)

changing of, after chemical splashes, 66, 165 cleaning of, at factory vs. home, 185, 274 clothing protecting the product not the worker, 65, 274 cost of, boss providing, 165 discomfort of wearing, 165, 260, 273 electrical dangers and, 275 for electronics processes, 72, 78-79,87 for machine safety, 165, 200 for maintenance of enclosed machines, 169 mealtimes and removal/storage of. 406

as no substitute for system of

preventive measures, 9, 95, 165, 169, 259, 260

proper size/fit/type, 165, 260 for recycling electronics, 90 right to, 276 SDS lists requirements for, 182

for soldering, 80 for UV-light exposure, 71, 261 for X-ray exposure, 74

also see Personal protective equipment, types of; and go to **Appendix B**, 474–529

Personal protective equipment, types of

anti-static clothing, 82, 87, 275 clothing, acid-resistant, 78, 273-274 dust-proof clothing, 87, 274 earmuffs, 271 earplugs, 271–272 face shields, 87, 114, 200, 261 gogales, 261 safety glasses, 261 shoes and boots, 274–275 also see Ear protection; Eye protection; Gloves; Masks and

respirators Phenol formaldehyde (PF) resin,

70, **511-513** Phenyl ether, 528 Phosphates, 510

Phosphine, 73, 482-484

Phosphorous, 112

Photomasking, 69–71, 77

Photoresist chemicals, 70, 77, 78 Phthalates, 112, 119, 163, 508-510

butyl benzyl phthalate (BBP),

508-510

di(2-ethylhexyl)phthalate,

508-510

dibutyl phthalate (DPB), 508-510 diethyl phthalate (DEP), **508–510** dimethyl phthalate (DMP),

508-510

dioctyl phthalate (DOP), 508-510 reduction of exposure, 508 toxic in tiny amounts, 155

Piecework, 284, 287

Piaments. 112, 170, 187 also see **Dyes**

"Pink eye" (conjunctivitis), 373 Plasticizers see Phthalates

Plastics

accelerators, 112 molding, fume reduction, 167, 169 shells and casings for electronics, 83 shoe manufacture, 112-114 temperature control of, 167, 172

toxic when burned, 83, 90 Platinum, 74

Police

migrant workers and, 343 used to break organizing efforts, 7, 12, 320, 348, 407, 449 and violence against women, 330, 436 women's desk for reporting sexual violence, 332, 436

Pollution

battery disposal, 83, 445 community participation in decisions about, 441 electronics manufacture and, 89 environment as influencing, 438 garment factories and, 106 health problems from, 438–442 map of the community to find, 41, 44-45, 439 organizing against, 442–445 responsibility of factory to community, 437



shoe factories and, 108, 119 also see Air pollution; Water pollution Polybrominated biphenyls (PBBs), 74, 489-490 Polybrominated diphenyl ethers (PBDEs), 74, 489-490 Polychlorinated biphenyls (PCBs), 163, **489-490** Polychloroprene, 116 Polyethylene, 83, 513 Polymeric carboxylic acid, 513 Polymers, 511-513 ethylene vinyl acetate (EVA), 113, 511-513 glyoxal resin, 513 phenol formaldehyde (PF) resin, 511-513 photoresist chemicals, 70 polyethylene, 83, 513 polymeric carboxylic acid, 513 polyurethane (PU), 113, 116, 511-513 polyvinyl chloride (PVC), 83, 190, 511-513 reduction of exposure, 511 urethane, 511-513 vinyl acetate, 511-513 vinyl chloride, 163, **511–513** Polyurethane (PU), 113, 116, 511-513

Polyvinyl chloride (PVC), 83, 190,

511-513 Posture improvement, 142, 148

Potassium carbonate, 78 Potassium permanganate bleach, 101, 477-478

PPE see Personal protective equipment

Pregnancy

chemicals affecting, 72, 382 dangerous jobs, 306 drinking water requirements, 414 and fish, limited eating of, 409 getting enough food during, 408 heat inside factory, 233 hiring policies against, 376, 377-378 HIV and, 420, 422 maternity leave, 364, 379 prevention of, after rape, 327

rotation/switching of jobs for safety of, 364 SDS listing dangers of each chemical, 182 also see Breastfeeding; Family planning; Reproductive and sexual health

Privacy

dormitory housing/lack of, 395 health care and, 368, 421 rape and need for, 326 toilets and need for, 394, 413, 416

Production line speed-ups, 392 Production quotas, 284, 297, 392, 407

Propane, 116

Properties of chemicals, SDS stating for each, 178, 179, 182

Propyl ether, 528 Prostate cancer, 163 Protecting workers from chemicals

first aid for chemicals, 174–177 mouth/belly exposure prevention, 170-171 reduce and remove toxics, 187 reduction from the air, 166-169 responsibility for safety, 151-152 spill and leak prevention, 172–173 storage and handling, 172, 181 tools to handle chemicals, 165 work conditions improvements,

clean work areas often, 167, 187

also see Bans on chemicals: Learn about chemicals used in your factory; Personal protective equipment; Rotation of jobs; SDS (Safety Data Sheets); Substitute chemicals: Ventilation: Waterbased chemicals

Proteins, 409 Public hearings, 62 Pullbacks and restraints, 199 Pulmonary edema see Lung problems Pumice stones, 101, 478

PU see Polyurethane **PVC** see Polyvinyl chloride R

"Race to the bottom". 3. 4. 289 Racism. 308

also see Discrimination

Radiation, 514-516

electronics factories and, 72, 73, 74.514-515 ionizing, 163 natural, 514 reduction of exposure, 514 RF (radiofrequency), 72, 73, 74,

testing and monitoring for, 74, 156 ultraviolet (UV), 71, 163, 261,

514-516

514-516

x-rays, 74, 75, 163, **514-516** also see Chemicals; Metals

Radiofrequency (RF) radiation, 72, 73, 74, **514-516**

Rail systems, 138

Rape

blame for, 326 health exam following, 326-328 health problems and treatments following, 327-328 if you know someone, 326 and transportation, 434

Raynaud's phenomenon, 109 Reactivity of chemicals, SDS stating for each, 182

Recycling

electronics, 90-91, 442 limited nature of, 440 shoes, 119

Red phosphorus, 491-492 Repetitive strain injuries (RSIs)

changing work conditions to prevent, 87, 99, 141 electronics workers and, 75 garment workers and, 99 homeworkers and, 110, 300 prevention of, 110, 122 signs of, 149 strain and pain care, 149 also see Ergonomics

Replacing chemicals see Substitute chemicals



Reproductive and sexual health

birth defects, 108, 161, 182, 382, 441
breastfeeding, 379
cancers, finding early, 384
child care, 379
desire to have sex, 161
exhaustion and, 279
factory controlling choices, 377–379

fertility problems, 161, 233, 381, 383

goals for safe factories, 375 health centers offering services, 342

heat inside factories, 233

maternity leave, 364, 379 men controlling women's access to services for, 376 men's problems, 376, 381, 382, 384 miscarriage/stillbirth, 161, 279, 382 monthly bleeding problems, 161, 279, 381, 382

pregnant women denied work, 376, 377–378

right to safe work, 380 sterilization required for work, 378 workers in prime of life, 375, 385 workshops to educate on, 385

also see Abortion; Family planning; Reproductive health problems, chemicals causing; Sexually transmitted infections; Vaginal infections

Reproductive health problems, chemicals causing

acetone, 382 benzene, 382 brominated flame retardants, 94 2-bromopropane, 381 cadmium, 382 carbon tetrachloride, 382 fluorinated hydrocarbons, 72 glycol ethers, 70 hexane, 382 lack of testing for, 381 lead, 382 organizing for safety, 383 potassium permanganate bleach, 101 SDS listing effects of each, 182 toluene, 382 types of problems caused, generally, 161, 376, 382 xylene, 382

and go to Appendix B, 474-529

Respirators see Masks and respirators

Restraints and pullbacks, 199

RF see Radiofrequency radiation

RoHS (European Union Restriction of Hazardous Substances Directive), 74, 82, 84

Rosin, 81, 190, 493-495

Rotation of jobs

for allergies to chemicals, 159 hearing loss avoided, 228 heat in factory and, 234 for pregnant women, 364 repetitive strain injuries avoided, 110 variation of tasks, 141 vibration-induced injury avoided, 109

RSIs see Repetitive strain injuries

c

Safer sex, 389

Safety Data Sheets see SDS
Sandblasting garments, 101–103, 187, 190

Savings groups, 285 Screen printing, 104

SDS (Safety Data Sheets)

accessible to workers, in their language, 95, 105, 115, 180 birth defects risk, 161, 182 health and safety committee gathering, 49 ingestion antidotes, 176 ingestion, vomiting or not, 176, 181 read multiple SDS of same chemical, 180 respirator requirements, 268 safety of chemical, 156 sample SDS, 181–182 sources for, 180

Self-defense, 332

Self-esteem, 306, 316, 320, 370, 393

storage/handling information, 181

Sex

desire for, 161 safer, 389 workers in factories as sexually active, 375, 385 also see **Family planning**

Sexual harassment, 322–325, 329, 333

Sexual health see Reproductive and sexual health

Sexually transmitted infections (STIs), 388

HIV risk increased with, 421 list of common STIs, 389 migrant health services for, 342 other infections of the genitals, 388 partner treatment, 389 and rape, 328

and rape, 328 safer sex to prevent, 389 signs of, 388 testing for, 372

also see HIV; Reproductive and sexual health

Sexual violence

blame for, 322
coalitions against, 332, 335
first aid preparation, 330
migrant workers and, 340
"no retaliation" policy, 334
"no violence" policy, 334
organizing to overcome, 330–335
as power over others, 322, 323, 330
rape, 326–328, 434
recording and reporting, 325, 331–332, 334
right to live free of, 329

325 self-defense, 332 sexual harassment, 322–325, 329, 333

role playing builds confidence,

and transportation, 434, 436 unions bargaining about, 314 walking in groups, 330

Shared workloads, 141

Sharing with neighbors

buying and cooking food, 412 child care, 403 community gardens, 292, 411 household chores, 403 raising chickens with neighbors, 411



trichloroethylene (TCE), 382

Shock (electric), first aid for, 203 Shock (loss of blood), 203

Shoe factories

design for sustainability and, 119 improving conditions, 107 living wage needed in, 107 waste disposal and, 108, 119 also see **Shoe factory dangers**;

Shoe factory processes

Shoe factory dangers

chemical mixing for soles, 112-113 dust, 111, 114, 118 dyes and polishes, 118 fire, 118 glues and primers, 115-117, 382 grinding the soles, 114 leather, chemicals used in, 108, machine injuries, 109–110, 118

molding the soles, 114 noise, 111 repetitive strain injuries, 110 vibration injuries, 109

and go to Appendix B, 474-529

Shoe factory processes

assembling the shoes, 115–117 finishing shoes, 118 making the soles, 112–114 making the upper parts of shoes, 108-111

Shoes and boots as PPE, 274-275

anti-static, 275 covers for, 275 extra, supplied by factory, 177 fungal infections from, 275 safety shoes and boots, 275 slip-resistant, 241, 274–275

also see Clothing; Personal protective equipment

Shoulders, massaging and stretching, 145, 147

Silicone-based finishing fabric treatments, 497

Silicosis, 102-103 Silver, 74, 90, 94 Skin, cancers of, 163 also see Skin contact with chemicals: Skin rashes

Skin contact with chemicals

chemical-resistant clothing, 274 emergency eye washes, 175, 183, emergency showers, 159, 175, 183, 414 first aid for, 175 first aid for HF (hydrofluoric acid),

glues and primers, 115 harms from, 66 how chemical exposures happen, 154

reduction of exposure, 164-165 remove and replace protective equipment/clothing, 159

also see Exposure to chemicals; *and go to* Appendix B, 474–529

Skin rashes

causes of, 158, 220, 233, 279 cream or lotion to protect, 158 garment workers and, 93, 94, 95 latex glove allergy, 265 treatment for, 158

and go to Appendix B, 474–529

Smoking

breathing in dust and, 97, 102 dangers of, 171 exposure to chemicals by, 67, 81, 154, 171 as fire danger, 212 garment chemicals and, 95 TB risk and, 429 vibration injuries and, 109

Soap and water see Hand washing

Social auditors see Independent monitors

Social dangers

analyzing, 21–22

defined, 10, 17 responsibility of factory owner for, 278 also see Child labor: Discrimination; Food; Health care access: HIV: Homeworkers: Hours: Housing; Mental health problems; Migrant workers; Organizing for better jobs: Pollution; Reproductive and sexual health; Stress: TB (tuberculosis); Toilet facilities; Violence; Wages; Water

Social media, 15, 62, 106

Social security system, 282

Social services, 370

Sodium carbonate monohydrate,

Sodium tetraborate decahydrate, 493-495

Soldering, 80-82

electronics assembly, 75, 79, 80 lead-free, 82 reduction of exposure, 80, 81, 167, 169, 170, 190

also see Fluxes

Solid waste

burning, 90, 119, 438, 439, 440 electronic factories and, 89 health problems caused by, 440 pollution from, 106, 440 worn-out shoes, 119 also see **Pollution**; **Recycling**; Waste disposal

Solvents, 517-529

banning most dangerous, 517 to clean dye from hands, 93 cleaning garments with, 104–105 as fire danger, 212, 517 fluorinated hydrocarbon solvents, 72, 190 glove protection choice for, 263 reduction of exposure, 517 screen printing and, 104 storing safely, 212 water-based, 118 also see Solvent types

Solvent types see Alcohol solvents; Aliphatic hydrocarbon solvents (petroleum distillates); Aromatic hydrocarbon solvents; Chlorinated hydrocarbon solvents; Ester solvents; Glycol ether solvents; Ketone solvents

Special Economic Zones see Export processing zones Spraying chemicals, 168 Spring-loaded arms for tools, 135 Spring-loaded cart, making, 137 Stairways, fire safety and, 212 Standing as danger, 77, 96, 105 Sterilization (reproductive), 378, 386

Stigma of HIV, 423

STIs see Sexually transmitted infections

Stomach

deep wounds to, 203 exhaustion and problems with,

also see Mouth/belly chemical exposures (ingestion)

Stop work actions, 61

Storage/handling of chemicals, 172.181

also see Containers for chemicals

housing, 434

346, 348

your factory, 184

overcoming fear, 391

Stories about Bangladesh, 214, 364, 450 batteries, 84, 445 child labor, 352, 356, 357, 358 discovering causes of health problems, 19 discrimination, 307, 318 dust exposure, 219, 220 electricity dangers, 207 electronics factories, 52, 68, 84, 85, 88, 170, 220, 224, 243, 324, 417, 439 ergonomics, 40, 123, 129, 140, 143 fires, 100, 214 food, 280, 406, 407 garment factories, 6-7, 19, 40, 50, 98, 100, 103, 106, 123, 140, 196, 207, 214, 219, 258, 264, 288, 293-294, 301, 303, 348, 352, 360, 370, 379, 392, 406, 407 gloves, 264 glue toxicity, 117 guards for machines, 196 health care access, 360, 364, 365 HIV programs, 426, 427 homeworkers, 301, 303 hours and wages, 290, 293-294

improvement of conditions, 6-7

learning about chemicals used in

listening to what workers know,

migrant workers, 337, 340, 345,

minimum wage, 6-7, 288, 289

pollution, 170, 439, 441, 445

repetitive stress injuries, 19, 40

378, 379, 381, 383 saving money by poisoning workers, 88 savings groups paying off debts, 285 sexual violence, 324, 325, 330, 333 shoe factories, 117, 119, 234, 290 substituting chemicals, 188–189 suicides from forced overtime, 85 temperature inside factory, 234 toilet facilities, 417 trade agreements, 460 transportation, 436 unions, 15, 50, 52, 370, 407 vehicles, 243 ventilation, 248, 258 violence, 293-294, 335 water pollution, 106, 170, 186 women's health express, 365 worker health promoters, 25, 360, 371, 374 work-related illnesses, recognition of, 68

reproductive and sexual health,

Strain and overuse see Repetitive strain injuries

Streetlights, 436

Stress

changes in communities and families, 396 economic insecurity, 392 exercise for stress reduction, 404 fear, 391, 397 gender role changes, 396 group living situations, 395 homeworkers and, 300 injuries in the workplace, 394 Ioneliness, 395 migrant workers and, 342, 394, moving to a new place, 394 organizing to reduce, 401–402 overstress, as mental health problem, 397 physical signs of, 397 self-esteem, 393 women's second shift and, 312 work environment, 394 workload, 279, 392 work relationships, 393 also see Mental health problems

Strikes, 15, 407

Styrene, 163, 522-523

Substitute chemicals

battery workers and, 84 employer organization to increase use of, 190 failure to test replacement chemicals, 82, 151 finding safer chemicals, 187–189 nitrogen- or phosphorus-based flame retardants, 83

and go to Appendix B, 474–529

Suicide, 85, 399

Sulfur dyes, 486-487

Support groups

for homeworkers, 301 for injured workers, 370 for stress reduction, 403 for women's rights education, 13

Surveys. 38-39

common health problems in the factory, 372 community pollution survey, 443-444 of ergonomics, 126 planning and carrying out, 39

of violent attacks, 331 Sustainability see Design

Sweatshop, as label, 59 Switches and pedals, 132, 199 Syphilis, 389

Tables, ergonomics of, 127–128

Tag out see Lock out

Talking with coworkers, 178, 180, 403

rules against, 393

428-431

Tanning leather, 108, 111 **TB** (tuberculosis), 102, 354, 428-431 HIV and, 419, 425, 429 MDR (Multi-Drug Resistant), 431 sians of, 430 testing/treatment/prevention,

TBBPA see **Tetrabromobisphenol**

TCA see Trichloroethane TCE see Trichloroethylene



TDI see Toluene diisocyanate

Teeth health, junk food and, 410

Temperature inside factory

air conditioning, 234, 249 employer responsibilities for, 232 measurement of, 48 new workers and, 233 also see **Temperature inside**

factory, cold; Temperature inside factory, heat Temperature inside factory, cold

first aid for, 237 health problems from, 109, 236, 237

methods to combat, 236-237

Temperature inside factory, heat

child workers and, 351 first aid for 235 health problems from, 105, 233-235, 245, 414 methods to combat, 234, 258 personal protective equipment and, 260, 273

Temperature of heated chemicals, safety and, 166, 167,

Temporary workers, 285

Teratogenic chemicals, 161 also see Reproductive and sexual health

Testicular cancer/exams, 163, 376, 384

Testing chemicals and exposures

air testing, 156 baseline testing, 156 body testing, 156 lack of studies of, 151, 179, 381, 462

lack of studies on combinations of chemicals, 151, 154, 179, 462 limited nature of testing, 151

Tetrabromobisphenol A (TBBPA), 489-490

Tetrachloroethylene (PERC), 52, 105, 116, 163, **524–525**

Throat cancer, 163

Tin, 74, 78, 79, 80, 82, **503–505**

Tinnitus (ringing in ears), 223, 225

Titanium, 74

Tobacco see Smoking

Toilet facilities

breaks to allow access to, 234 condition of, as stressful, 394 factory responsibility for, 413 free access to, 413, 415, 416 HIV and, 425 measurement of access to, 48 number of toilets and placement in factory, 413, 415 privacy and, 394, 413, 416 supplies for, 413, 415, 416 women's needs and, 416 also see Hand washing

Toluene, 70, 105, 116, 117, 163, 382, 522-523

Toluene diisocyanate (TDI), 498-500

Tools

for clearing jams and debris from machines, 192 ergonomics of, 133-135 handling chemicals with, 165, 187 for hot processes, 200 noise reduction for, 227

Toxicology information, SDS listing, 182

TPP see **Triphenyl** phosphate **Trade agreements**, 14, 459, 460

Traditional medicines

for genitals after rape, 327 home remedy for brown lung, 97 pain treatment and, 149 for skin rash, 158 for stress reduction, 403

Training of workers

chemical safety and use, 152, 183 ergonomics, 141 fire extinguisher use, 213 first aid, 174, 177, 209, 361 health and hygiene, 372 HIV safety for accidents, 427 machine safety, 192 rescue breathing and CPR, 174,

Transportation, 435–436

Treatment

breathing in chemicals, 67 breathing problems caused by cotton dust, 97 HIV prevention after rape, 328 respect for patient in, 368

sexually transmitted infections (STIs), 328 skin rashes, 158 UTIs, drinking liquids, 373 also see First aid; Health centers/ health providers; Medicine; Traditional medicine

Triarylmethane dyes, 486-487

Trichlocarban, 94

Trichloroethane (TCA), 105

Trichloroethylene (TCE), 52, 105, 116, 163, 187, 382, **524–525**

Trichomonas, 389

Triclosan, 94

Triphenyl phosphate (TPP), 491-492

Tuberculosis see TB

U

Ultraviolet (UV) light, 71, 163, 261, 514-516

Unconscious person, 174, 176, 209 Unions

anti-child labor work of, 358 anti-sexual harassment work of. 329 campaigns and, 59 chemical safety and, 383 controlled by government or employer, 13, 15 corruption and, 13, 320 defined as worker-controlled, 12 discrimination within, 308, 314 enforcement of right to, 50 for food rights, 407 health care access and, 370 homeworkers and, 303 hours and wages and, 291 incorrect pay, advice about, 288 as information source, 31, 257 labor law regulation of, 449 migrant workers and, 341, 344, 346, 347-348 right to organize, 13, 51 role of, 5, 12-13, 258 violence/discrimination against organizers of, 12, 53

women and organizing of, 13, 308,

312, 314

United Nations (UN)

conventions by subject, xi conventions by title, 457 role of, 11, 12, 451 symbol of, 11 website for, 457

UN see United Nations (UN) Urethane, 511-513

Urinary tract infections (UTIs)

after rape, 328 antibiotics for, 373, 388 drinking liquids as treatment, 373 and need for water, 388, 414 toilet access prevents, 415, 416 untreated, and kidney infection,

UTI see **Urinary tract infections** UV see Ultraviolet (UV) light

Vacuum aspiration abortion, 387 Vaginal infections

heat of factory as cause of, 233 sexually transmitted infections, 388-389 yeast infections, 388, 419

Vehicles

electric motors, 187 exhaust as danger, 190, 242 injury prevention, 238, 242-243 warming of, 236

air conditioning, 234, 249, 395

chemicals reduced from air with,

Ventilation

168 cold workplace and, 236 committee for, 253-254, 256-257, directional and ceiling fans, 247 electronics factories and, 67, 72, 77, 78, 81, 246, 248, 249 filters on, to avoid air pollution, 246, 247 garment factories and, 94, 95, 97, general ventilation system, components of, 246-247 hot workplace and, 258 HVAC systems, 246-247, 249

mapping the ventilation, 253-254 responsibility of factory owner/ boss for, 244, 257, 258 right to healthy air at work, 255, SDS lists requirements for, 182 shoe factories and, 111, 113, 114, 115, 117, 118 signs of bad ventilation, 245 special general ventilation and cleanrooms, 249 TB spread and lack of, 428, 429 vents and exhaust fans, 168, 247 wall fans, 247

ventilation Vibration harms, 109, 134, 236 Vibration-induced White Finger (VWF), 109, 236

windows and, 247, 248, 258

also see Local exhaust

workspace problems with, 248

Vinegar test, 384 Vinyl acetate, 511-513 Vinyl chloride, 163, 511–513

Violence

boss's use of, 294, 306, 320 discrimination and, 306, 307 emotional and psychological abuse, 306, 319, 320, 392, 393 fear of, overcoming, 321, 391 measurement of incidents of, 48 migrant workers targeted, 306, 335, 343, 460 murder, 320, 434, 460 "no violence" policy, 334

organizing against, 319, 321, 332, 334-335 physical violence, 320

pregnant women harassed, 378 recording and reporting, 331-332 safer streets and transportation, 434, 436

self-defense, 332 and self-esteem, damage to, 320,

survey of attacks, 331 union organizers targeted, 52, 320 women targeted, 306

also see Sexual violence

Vomiting after mouth/belly chemical exposure, 176

VWF see Vibration-induced White Finger

W

Wafers see Electronics factories Wages contract/temporary workers, 285

and debt, 285, 337, 343 discrimination and, 48, 284, 305 homeworkers and, 295, 296 illegally withholding wages, 282, 335 keeping/checking records, 286-288 organizing for fair wages and hours, 290-294 piecework, 284, 287 as responsibility of employers, 278 also see Hours; Living wage; Minimum wage; Overtime

Washrooms see Hand washing; **Toilet facilities**

Waste disposal

chemical containers, 185–186 electronics factories and, 89 factory owner as responsible for, 183 gloves, 262 leather tanning and, 108 SDS listing requirements for each, 182 shoe factories and, 119 zero waste as goal, 91 also see Pollution; Recycling; Solid waste

Water

electricity dangers and, 206, 209 for mouth/belly chemical exposures, 176 for showers/eye washes, maintenance of, 414 also see Hand washing; Toilet facilities; Water, drinking; Water pollution

Water-based chemicals

detergent and steam used as cleaners/solvents, 187 detergent used in place of grinding shoe soles, 114 glove protection choice for, 263 glues as still harmful, 115, 498 substituting for solvent based, 187

maintenance of systems, 97, 246,

249, 254

Water buckets and fire safety, 213, 298

Water, drinking

bottled, 170 chemical containers should never be used for, 106, 171, 186, 299 containers for, not used to store chemicals, 171 cooled, in hot factories, 414 cups for, 414 food-cooking water, reuse of, 411 hot factories and, 233, 414 hydration drink, recipe for homemade, 235, 373 hydration during shifts, 233, 234, safe community water, 185–186 safe practices for, 171, 413, 414 signs of need for, 414 urinary tract infections and need

for, 388, 414 Water pollution

electronic factories and, 89, 170 fighting chemical fires and, 442 and fish, limits on eating, 409, 440 garment factories and, 106 groundwater and, 170, 440 health problems caused by, 440 leather tanning and, 108 soil pollution caused by, 440 waste dumping into water, 185 also see Pollution

Waterproofing chemicals, 94

Websites see Internet Wheel brakes, 139 "Wildcat" strikes, 15 Windows

fresh air via, 247 glare reduction, 231 locked, and ventilation need, 258 also see Ventilation

Wires and cables, 83, 90 also see Electricity dangers

Women

and dangerous jobs, 306 early marriage, pressure for, 354 education denied to, 305, 353, 354 health needs not recognized as work-related, 364-365 HIV risk for, 421

humiliating treatment, 306, 319, as majority of workers in export factories, 12, 305, 364

organizing by, support for, 290, 312, 314, 315

police desk for women to report sexual violence, 332, 436 promotions denied to, 305

second shift of, 312, 313

separate meetings in workplace, 36, 333

union organizing, 13, 308, 312, 314 wage discrimination and, 48, 284, 305

also see **Discrimination**:

Reproductive and sexual health; Sexual violence; Women's rights

Women's rights

employer organizations in support of. 14 and gender role changes, 396 international commitment to, 454 non-union groups for, 449 role of, 12 support groups for education on. 13 unions bargaining for issues of, 314

Work conditions/organization, changes to. 9

also see Ergonomics; Rotation of jobs

Work dangers, 17

analyzing, 21-22 HIV and vulnerability to, 425 for homeworkers, 298-300 measurement of, 48 principles of change, 26 strategies to make work safer, 9 also see Chemicals; Dust;

Electricity dangers; Ergonomics; Falls, prevention of; Fire dangers; Health problems; Lighting; Machine safety; Noise; Personal protective equipment; Temperature inside factory; Vehicles: Ventilation

Worker health promoters

bring offers from management back to workers, 60 causes of worker health problems, analyzing, 18-22 characteristics needed by, 24, 34, 449

choosing first problem to solve,

company records as information source, 31, 46 defined, 24

discomfort with issues raised by co-workers, 36

family planning and STIs, workshops about, 385-389 goals of, 16, 34 group involvement and, 34

HIV education, 426 information and support sources,

31 - 32, 371as "insiders," 371 language used by, 29 measurement of dangers, 48 meeting arrangements, 36, 37, 290, 402, 449

notebook as record of work and health, 46-47, 81, 158, 178, 286 OSH professionals, help from, 25, 31, 32, 383

outreach to co-workers, 36 principles of health and safety, 26 role of, 25, 371

seeking help when needed, 30, 37 solutions to problems, short-term and long-term, 23 surveys to gather information see

Survevs

teach how to learn, 29 teach what is most useful, 28 training of, 371, 374 trainings and materials created by, 371

also see Activities; Campaigns; Learn about chemicals used in your factory; Worker involvement in finding solutions

Worker involvement in finding solutions

creativity enhanced by, 23 discussing problems, 28, 36, 459 errors avoided by, 23 ideas, engaging workers, 27, 459 ideas of, asking for, 28 information, asking for, 31 knowledge of, asking for, 40 machine dangers, 192 as motivated to achieve safety, 26 notebook as record of work and health, 47 OSH professionals and, 33 trust among workers, 53, 393

Workers' compensation systems

promoters

also see Activities; Worker health

filing a claim, 369 garment factories and, 96 recognition of work-related injuries and illness, 362, 363, 369-370 recording patterns of health problems, 369 rehabilitation and back-to-work programs, 370 right to be compensated, 363 social insurance for permanently disabled workers, 370 support groups for injured workers, 370

Workers' rights, 11–12, 14 indexed by subject, xi also see International Labour Organization; United Nations Workstations see Ergonomics World Trade Organization (WTO), 458

X

Xenon (Xe), 506-507 Xexamethylene diisocyanate (HDI), 498-500 X-rays, 74, 75, 163, 514-516 Xylene, 70, 116, 163, 382, 522-523

Yeast infections, 388, 419 Yoga, and stress reduction, 404 Young workers, defined, 350 also see Child labor

Z

Zinc-2-mercaptobenzothiazole (ZMBT), 501-502 Zinc chloride, 493-495, 494-495 Zinc stearate, 112 ZMBT see Zinc-2mercaptobenzothiazole

Notes