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G1	G A G II		Notation	1	Industries/Uses	Reference
Chemical Name	CAS#	CAR	S	R/T		
Acetaldehyde	75-07-0	2			cosmetics, aniline dyes, plastics, synthetic rubber, pesticides, pharmaceuticals; in glue and	ACGIH 2014
					casein products (as a hardener); preservatives for fish, fruit, and leather; paper industry	https://www.cdc.gov/niosh/docs/81-123/pdfs/0001.pdf
Acetophenone	98-86-2			X	soaps, detergents, creams, lotions, and perfumes, foods, nonalcoholic beverages, and	ACGIH 2009
					tobacco (as a fragrance or flavoring agent); use of plastics and resins (as a solvent); polymerization of olefins (as a catalyst); organic syntheses (as a photosensitizer)	https://pubchem.ncbi.nlm.nih.gov/compound/acetophenone#section=Uses
4-Aminodiphenyl	92-67-1	1			No longer produced commercially, in general for research purposes only	ACGIH 2001
tert-Amyl methyl ether	994-05-8			X	Gasoline industry and fuel industry (as additives)	https://www.cdc.gov/niosh/docs/81-123/pdfs/0025.pdf https://www.cdc.gov/niosh/nioshtic-2/20044380.html
Ar-Amyi memyi emei	33 4- UJ-0		1	^	Casoniic industry and ruci industry (as additives)	https://pubchem.ncbi.nlm.nih.gov/compound/tert-Amyl_methyl_ether#section=Uses
Antimony trioxide	1309-64-4	2	1		Textile and plastic manufacturing (as an additive); in the paint industry and glass	ACGIH 2001
Antimony trioxide	1307-04-4	2			manufacturing (as enamel)	http://www.cdc.gov/niosh/hhe/reports/pdfs/2009-0025-0076-3085.pdf
Arsenic	7440-38-2	1			Manufacturing or use of insecticides, weed killers, fungicides, and wood preservatives; in	ACGIH 2001
					the glass industry (bronzing or decolorizing); metal alloys (as a hardener)	https://www.cdc.gov/niosh/docs/81-123/pdfs/0038.pdf
Asbestos	1332-21-4	1			Construction and demolition; roofing, thermal and electrical insulation, cement pipe and	ACGIH 2001
					sheets, flooring, gaskets, friction materials, coatings and compounds, plastics, textiles,	http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=4
					paper and other products); in friction materials (break liners)	
Atrazine (and related symmetrical triazines)	1912-24-9			X	Manufacture or use of herbicides	ACGIH 2001
						https://www.cdc.gov/niosh/docs/81-123/pdfs/0043.pdf
Benomyl	17804-35-2			X	Agriculture industry (as a fungicide); veterinary medicine (anthelmintic for parasitic	ACGIH 2008
					worms); sewage treatment (oxidizing agent); textile and paint manufacturing (as a pigment);	
					pesticides	099101_31-Jul-02.pdf
						https://www.cdc.gov/niosh/docs/81-123/pdfs/0048.pdf
Benz[a]anthracene	56-55-3	2			used for research purposes	ACGIH 2001
						https://pubchem.ncbi.nlm.nih.gov/compound/Benz_a_anthracene#section=Top
Benzene	71-43-2	1			Scientific laboratories (solvent); motor fuel blends (extracting solvent); construction (paint	ACGIH 2001
					and varnish remover); oil refining	CHEMINFO
						https://www.cdc.gov/niosh/docs/81-123/pdfs/0049.pdf
Benzidine	92-87-5	1			Manufacture of dyes; rubber industry (hardener, compounding agent); analytical research	ACGIH 2001
					(detection of blood and inorganics)	https://www.cdc.gov/niosh/docs/81-123/pdfs/0051.pdf
Benzo[a]pyrene	50-32-8	2			No known industrial uses; may be produced when burning plants, cigarette smoke, wood,	ACGIH 2001
					coal; operating cars, trucks, other vehicles or smelting	CHEMINFO
						http://www.atsdr.cdc.gov/toxprofiles/tp69-c2.pdf
						http://www.cdc.gov/niosh/nioshtic-2/20000785.html

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Chemical Name	CAS#		Notation		Industries/Uses	D. C.
Chemical Name	CAS#	CAR	S	R/T		Reference
enzo[b]fluoranthene	205-99-2	2			Cancer research lanoratory use; may be produced during incomplete combustion (soot,	ACGIH 2001
					coal); in emissions from various industrial processes (coal gasification, coke production,	CHEMINFO
					iron and steel founding, and aluminum production)	pubchem.ncbi.nlm.nih.gov
enzotrichloride	98-07-7	2			Dye industry; manufacture of ultraviolet stabilizers; wastewater treatment plants and textile	ACGIH 2001
					industries (determination of chlorinated toluenes)	www3.epa.gov
						chemicalbook.com
eryllium and compounds, as Be	7440-41-7	1	X		Used in lightweight metal materials found in defense, aerospace, telecommunications,	ACGIH 2014
					automotive electronics industries; sports equipment (golf club and bike frames); medical	CHEMINFO
					applications (X-ray machines, dental bridges); coal, fuel oil industry (combustion; beryllium	http://www.cdc.gov/biomonitoring/Beryllium_BiomonitoringSummary.html
					production and processing)	http://www.cdc.gov/niosh/topics/beryllium/default.html
-Bromopropane	106-94-5		Х	ζ		ACGIH 2014
r					some aerosol spray products	https://blogs.cdc.gov/niosh-science-blog/2013/08/01/1bp-2/
,3-Butadiene	106-99-0	2			Synthetic rubber industry (tires, vehicle parts, electrical components)	ACGIH 2001
,						https://www.cdc.gov/niosh/docs/81-123/pdfs/0067.pdf
-Butyl glycidyl ether	2426-08-6		X	ζ	Construction industry (coating of concrete, flooring, repairing of cracks); epoxy resins,	ACGIH 2005
Duty's gryerdy's eases	2.20 00 0			-	electrical insulation, paints, glues; fiberglass finishing	https://www.cdc.gov/niosh/docs/81-123/pdfs/0081.pdf
Cadmium and	7440-43-9	2.			Metal industry (coating); manufacture of nuclear reactor rods (liberator); television	ACGIH 2001
compounds, as Cd	7.10.00	2			phosphors, dry film lubricants, lasers, plastic stabilizers, semiconductors; dying and printing	
compounds, as ea		[~			industries (as pigment in glazes and enamels)	inteps.// www.ede.go // intosir does//of 125/pdfs/000/.pdf
Calcium chromate, as Cr	13765-19-0	2			Battery industries (as a depolarizer); primers, coatings (as a pigment); corrosion prevention;	ACGIH 2001
, , , , , ,					in electroplating, photochemical processing, industrial waste treatment.	http://www.atsdr.cdc.gov/HAC/pha/BarrelsDisposedinLakeSuperior_HC_3-14-
					β, τ β,	2008/BarrelsDisposedinLakeSuperior_HC_3-14-2008.pdf
Captafol	01-06-25		X		Agricultrual fungicide	ACGIH 2017
Supturor	01 00 25				Tigirouttuu Tungtota	
Carbaryl	63-25-2		Х	Υ .	found in pesticides, insecticides.	ACGIH 2008
•						CHEMINFO
						https://www.cdc.gov/niosh/docs/81-123/pdfs/0100-rev.pdf
Carbon tetrachloride	56-23-5	2			Manufacture of fluorocarbons (propellants, refrigerants, and plastic-foam blowing agents);	ACGIH 2001
					industrial solvents; research applications; grain industry (fumigants, insecticides)	CHEMINFO
						http://www.cdc.gov/niosh/nioshtic-2/00165795.html
Chloroform	67-66-3		Х	K	Manufacture of fluorocarbons, refrigerants, resins, plastics; pharmaceutical industry (as a	ACGIH 2001
					solvent); manufacture of pharmaceuticals, rubber; dye, drug, pesticide indistries (chemical	https://www.cdc.gov/niosh/docs/81-123/pdfs/0127.pdf
					intermediate)	T T T T T T T T T T T T T T T T T T T
is(Chloromethyl) ether	542-88-1	1			Only used in enclosed systems in chemical production.	ACGIH 2001
(3 .2 .5 .1	1				http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=188

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Chemical Name	CAS#	CAR	S R/T	industries/Uses	Reference
Chloromethyl methyl ether	107-30-2	2		In laboratories (as a methylating agent); treatment of textiles or rubber products	ACGIH 2001; CHEMINFO
					http://www.cdc.gov/niosh/nioshtic-2/00136023.html
2-Chloropropionic acid	598-78-7		X	Manufacturing of body care, agricultural, chemical, pharmaceutical products.	ACGIH 2001
					http://cabb-chemicals.com/en/product-viewer/detail/78.html
3-Chloroprene	126-99-8	2		Manufacturing of neoprene, polychloroprene latex, and certain rubber cements.	ACGIH 2017
Chromite ore processing (Chromate), as Cr		1		Foundry, steel and glass industry (as a hardener)	http://www.lkabminerals.com/Products/Chromite-Sand/
Chromium,	7440-47-3			Treatment of leather, silk, and wool; stainless steel industry (fabrication of alloys or plated	ACGIH 2004
Water-soluble Cr VI compounds		1		products); coating (chrome plating) of metals and plastics	CHEMINFO
Insoluble Cr VI compounds		1			http://www.cdc.gov/niosh/hhe/reports/pdfs/2003-0328-2935.pdf
					http://www.cdc.gov/niosh/docs/81-123/pdfs/0141.pdf
GL 111	2071 00 6				A COMPANIA
Clopidol	2971-90-6			Poultry industry (as a pesticide)	ACGIH 2013
2 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	65006.02.2	1			CHEMINFO
Coal tar pitch volatiles, as benzene soluble nerosol	65996-93-2	1		Smelting industry (as a binder), in roofing materials, surface coatings and for pitch coke production.	ACGIH 2001
Diazomethane	334-88-3	2		Chemical analysis and laboratory processes (methylating agent)	http://www.carexcanada.ca/en/coal_tar_and_coal-tar_pitches/ ACGIH 2001
Diazomeniane	334-66-3			Chemical analysis and laboratory processes (methylating agent)	https://www.cdc.gov/niosh/docs/81-123/pdfs/0182.pdf
Dibutyl phthalate	84-74-2		X	Insect repellant; in elastomers, explosives, nail polish as a plasticizer; perfumes, oils,	ACGIH 2001
Stouty philianae	04 74 2		1	textiles, lubricating agents, safety glass (as a solvent); manufacture of nitrile rubber,	https://www.cdc.gov/niosh/docs/81-123/pdfs/0187.pdf
				polyvinyl acetate, nitrocellulose coatings, polyester, epoxy resins	The part of the pa
Dichloroacetic acid	79-43-6		X	Water treatment (purification); manufacture of agrochemicals and pharmaceuticals; fibre	ACGIH 2005
	,, ,,			manufacture (as a test reagent); in the medical procedures (as a disinfectant)	CHEM INFO
1,4- Dichloro-2-butene	764-41-0	2		Used in chemical production	ACGIH 2001
Dieldrin	60-57-1		X	Agriculture industry (as insecticides, pesticides)	ACGIH 2010
				-g	CHEMINFO
Diglycidyl ether	2238-07-5		X	textile treatment (as a diluent for epoxy resins); generally used in research laboratories	ACGIH 2007
					https://www.cdc.gov/niosh/docs/81-123/pdfs/0215.pdf
N,N- Dimethyl acetamide	127-19-5		X	Synthetic fibre production (spinning solvent); recovery and purification from top coating,	ACGIH 2001
•				film casting, spinning, chemical process	https://www.cdc.gov/niosh/docs/81-123/pdfs/0218.pdf
Dimethyl carbamoyl chloride	79-44-7	2		Manufacture of carbanate pesticides, dyes, drugs; fuel production	ACGIH 2007
· ·					http://ntp.niehs.nih.gov/ntp/roc/content/profiles/dimethylcarbamoylchloride.pdf
Dinitrotoluene	25321-14-6		X	Manufacture of toluene diisocyanate for production of polyurethane plastics, amunitions	ACGIH 2001
				industry (as a modifier for smokeless powders);	https://www.cdc.gov/niosh/docs/81-123/pdfs/0235.pdf
				military and commercial explosive compositions	https://www.atsdr.cdc.gov/toxfaqs/TF.asp?id=846&tid=165

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Chemical Panic	CAS#	CAR	S	R/T	Industries/Uses	Reference
Epichlorohydrin	106-89-8			X	Manufacture of resins, plasticizers, pharmaceuticals, rubber, insecticides	ACGIH 2001
						https://www.cdc.gov/niosh/docs/81-123/pdfs/0254.pdf
2-Ethoxyethanol	110-80-5			X	Manufacture of lacquers, lacquer thinners, resins, solvents, varnish removers, cleaning	ACGIH 2001
					compounds, soaps, cosmetics, pesticides, pharmaceuticals, adhesives, detergents (solvent);	https://www.cdc.gov/niosh/docs/81-123/pdfs/0258.pdf
					leather finishes; textile dying, printing; brake fluids, aviation fuels	
2-Ethoxyethyl acetate	111-15-9			X	Solvent for oils and resins; in wood stains, varnish removers; treatment of textiles, leathers	ACGIH 2001
						CHEMINFO
						https://www.cdc.gov/niosh/docs/81-123/pdfs/0259.pdf
Ethylene oxide	75-21-8	2		X	Use of pesticides, sterilants, fumigants; in fire protection sprinkler systems	ACGIH 2001
						CHEMINFO
						https://www.cdc.gov/niosh/docs/81-123/pdfs/0275.pdf
						https://www.cdc.gov/niosh/topics/ethyleneoxide/
2-Ethylhexanoic acid	149-57-5			X	Soaps for paints, varnishes; manufacture of catalysts, inks, dyes, plasticizers, flame	ACGIH 2007
					retardants, chemical additives; lumber industry (as a pesticide); automotive care products	CHEMINFO
					(lubricants and lubricant additives, corrosion inhibitors)	https://pubchem.ncbi.nlm.nih.gov/compound/2-ethylhexanoic_acid#section=Consumer-
						Uses
Flour dust	-		X		Flour mills and packing operations; commercial bakeries; breading plants, farms (animal	ACGIH 2001 http://www.cdc.gov/niosh/hhe/reports/pdfs/2009-0131-3171.pdf
					feeds)	http://www.cdc.gov/niosh/hhe/reports/pdfs/2005-0248-3077.pdf
						http://www.cdc.gov/niosh/nioshtic-2/00227753.html
Formaldehyde	50-00-0	1	X		Manufacture of fertilizers, dyes, disinfectants, germicides; preservative for hair shampoos,	ACGIH 2001
					conditioners, water-based paints; treatment for textile fabrics	http://www.cdc.gov/niosh/pgms/worknotify/formaldehyde2.html
						https://www.osha.gov/OshDoc/data_General_Facts/formaldehyde-factsheet.pdf
Glutaraldehyde, activated or unactivated	111-30-8		X		Health care industry (cold sterilant); biocide on metalworking fluids, in oil and gas	ACGIH 2001
					pipelines; antimicrobial in water-treatment systems; slimicide in paper manufacturing;	http://www.cdc.gov/niosh/topics/glutaraldehyde/default.html
					preservative in cosmetics; disinfectant in animal housing	https://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=284
Hard metals containing Cobalt and Tungsten	7440-48-4	2	X		Mining processes; cemented tungsten-carbide industry, cobalt powder industry; alloy	ACGIH 2001
carbide, as Co	12070-12-1				production (processing, use of hard metal, grinding and sharpening of steel tools with hard	http://www.cdc.gov/niosh/topics/cobalt/default.html
					metal abrasives)	
Hexafluoroacetone	684-16-2			X	Solvent for acetal resins and polyamides; in polymer adhesives	ACGIH 2001
						https://pubchem.ncbi.nlm.nih.gov/compound/12695#section=Industry-Uses
Hexahydrophthalic anhydride, all isomers	85-42-7; 13149-00-3;		X		In epoxy resins (as the curing agent / hardener); in paints, adhesives, and sealants	ACGIH 2004
	14166-21-3					http://www.cdc.gov/niosh/hhe/reports/pdfs/1996-0100-2636.pdf
Hexamethylene diisocyanate (HDI)	822-06-0		X		Automotive industry (curing agents in polyurethane paints for automobile refinishing);	ACGIH 2001
					medical industry (preparation of dental material, contact lenses, medical adsorbent)	https://pubchem.ncbi.nlm.nih.gov/compound/13192#section=Use-and-Manufacturing
Isophorone diisocyanate	4098-71-9		X		Manufacture of vinyl resins, herbicides, coatings, paint, adhesive and inks (as a solvent);	ACGIH 2001
					lubricating oil additives, tetramethylquanidine (used in organic synthesis)	https://www.cdc.gov/niosh/docs/81-123/pdfs/0355.pdf

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Chemical Manie	CAS#	CAR	S	R/T	Hidustries/Uses	Reference
Lead - elemental and inorganic compounds, as Pb	7439-92-1			X	Manufacture of batteries; manufacture of ceramics and glass; soldering; manufacture of paints and varnishes	ACGIH 2001 https://www.cdc.gov/niosh/docs/81-123/pdfs/0368.pdf http://www.csst.qc.ca/en/prevention/reptox/Pages/information-sheet- whmis.aspx?langue=a&no_produit=1172
Lead chromate, as Pb as Cr	7758-97-6	2 2		X	Plastics industry (as a dye)	ACGIH 2001 http://www.cdc.gov/mmwr/preview/mmwrhtml/00016632.htm http://www.csst.qc.ca/en/prevention/reptox/Pages/information-sheet- whmis.aspx?langue=a&no_produit=1172
Maleic anhydride	108-31-6		X		Manufacture of resins for automobile bodies, structural building panels, molded boats, chemical storage tanks; polyester; detergents and lubricating additives	ACGIH 2001 https://www.cdc.gov/niosh/docs/81-123/pdfs/0376.pdf
Mercury - Elemental, as Hg	7439-97-6			X	Manufacture or use of fungacides, slimicides; mining of mercury (in extraction operations)	ACGIH 2001 https://www.cdc.gov/niosh/docs/81-123/pdfs/0384.pdf http://www.csst.qc.ca/en/prevention/reptox/Pages/information-sheet-whmis.aspx?langue=a&no_produit=1172
Mercury - Inorganic compounds, as Hg	7439-97-6			X	Manufacture and repair of industrial and medical apparatus; pesticides, antiseptics, germicides; in the pulp and paper industry	ACGIH 2001 https://www.cdc.gov/niosh/docs/81-123/pdfs/0383.pdf
Methomyl	16752-77-5			X	Agriculture (as an insecticide)	ACGIH 2014
2-Methoxyethanol	109-86-4			X	Manufacturing of electronics and semi-conductors; cleaning and furnishing care products; paints and coatings	ACGIH 2006 http://www.cdc.gov/niosh/docs/99-104/pdfs/99-104.pdf http://www.cdc.gov/niosh/nioshtic-2/00188265.html
2-Methoxyethyl acetate (EGMEA)	110-49-6			X	Manufacture of surface coatings and adhesives (as a solvent); paper coatings, textile printing, leather finishes (as a solvent); photographic film	ACGIH 2006 https://www.cdc.gov/niosh/docs/81-123/pdfs/0402.pdf
Methyl n-butyl ketone	591-78-6			X	1 0 1	ACGIH 2001 https://www.cdc.gov/niosh/docs/81-123/pdfs/0325.pdf
Methyl chloride	74-87-3			X	Manufacture of silicone resins and tetramethyl lead; manufacture and use of pesticides, pharmaceuticals, perfumes; petroleum refining (as a dewaxing agent); propellant in aerosols; refrigerant; extractant for greases, oils, resins; used in butyl rubber production (as a catalyst solvent), production of plastics (as a foaming agent)	ACGIH 2001 https://www.cdc.gov/niosh/docs/81-123/pdfs/0403.pdf
Methylene bisphenyl isocyanate (MDI)	101-68-8		X		Urethane industry (during spraying and molding of urethane foams), in the fabric industry (during the curing process)	ACGIH 2001 https://www.cdc.gov/niosh/docs/81-123/pdfs/0413.pdf
1,4'-Methylene bis(2-chloroaniline)	101-14-4	2			Used in the manufacturing of polyurethane products	ACGIH 2001 http://www.cdc.gov/niosh/nioshtic-2/00198065.html
Methylene (bis(4-cyclohexylisocyanate)	5124-30-1		X		Used to produce urethane products	ACGIH 2001
Methyl isopropyl ketone	563-80-4			X	Process solvents	ACGIH 2011 http://oehha.ca.gov/chemicals/methyl-isopropyl-ketone

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Chemical Name	CAS#	CAR	S	R/T		
α-Methyl styrene	98-83-9			X	Manufacture of styrene-butadiene rubber, high-impact acrylonitrile-butadiene-styrene	ACGIH 2010
						https://www.cdc.gov/niosh/docs/81-123/pdfs/0429.pdf
ß-Naphthylamine	91-59-8	1			Manufacture of dyes, acids, rubber; used in reasearch facilities and laboratories	ACGIH 2001
						https://www.cdc.gov/niosh/docs/81-123/pdfs/0442.pdf
Natural rubber latex	06-04-06		X		Rubber and latex manufacturing; commonly found in rubber tires, latex condoms, and	ACGIH 2008
as inhalable allergenic proteins					surgical gloves	
Nickel and inorganic compounds including					Production/use of stainless steel, corrosion and heat resistant alloys; catalysts for	ACGIH 2001
Nickel subsulfide, as Ni					hydrogenation of fats and oils; electroplating; textile and ceramic industries (dyeing and	http://www.cdc.gov/niosh/docs/81-123/pdfs/0445.pdf
Insoluble inorganic compounds (NOS)	7440-02-0	1			printing); processing and refining of ore; manufacture of alloys	
Nickel subsulfide, as Ni	12035-72-2	1				
4-Nitrodiphenyl	92-93-3	2			Agriculture industry (as a fungicide); dye industry; wood industry (as a preservative); fibere	ACGIH 2001
• •					and plastic industries (industrial solvent, oxidant, additive in lubricants); plasticizer for	http://www.mlss.gov.jm/eoshd/data/nioshdbs/oshameth/2082/2082.htm
					resins, polystyrenes, cellulose acetate and nitrate; textile industry (as a fungicide)	https://www.cdc.gov/niosh/docs/81-123/pdfs/0451.pdf
Nitrous oxide	10024-97-2			X		ACGIH 2001
					oxidant for organic compounds; nitration of alkali metals	https://www.atsdr.cdc.gov/MHMI/mmg175.pdf
p,p'-Oxybis(benzenesulfonyl hydrazide),	80-51-3			X		ACGIH 2001
Inhalable					packing materials, rubber insoles for shoes, insulating materials; adhesives, sealants; rubber	https://pubchem.ncbi.nlm.nih.gov/compound/6649#section=Use-and-Manufacturing
					gaskets, stoppers; leather substitutes; painting and coating industry	
Phenyl glycidyl ether (PGE)	122-60-1			X	Coupling agent, catalyst, reactive diluent in curing rubber, thermostable epoxy resins, tire	ACGIH 2002 https://www.cdc.gov/niosh/docs/81-123/pdfs/0498.pdf
					cord, electric insulating materials; fabric industry (treatment); production of epoxy polymers	
					(use as copolymer); chemical intermediates	
Phenyl isocyanate	103-71-9		X			ACGIH 2015
						http://www.cdc.gov/niosh/topics/isocyanates/default.html
					insulation material	
Phenylphosphine	638-21-1			X	Laboratory or research use (intermediate or chemical reagent)	ACGIH 2001
7 1 1					· · · · · · · · · · · · · · · · · · ·	https://www.cdc.gov/niosh/pel88/638-21.html
Phthalic anhydride	85-44-9		X			ACGIH 2001
,						https://www.cdc.gov/niosh/docs/81-123/pdfs/0512.pdf
					urethane polymers, perfumes, weed killers), pharmaceuticals and pharmaceutical	
					intermediate, epoxy resins (curing and hardening agents)	
Piperazine and salts, as piperazine	110-85-0		X			ACGIH 2012
r			1			http://www.cdc.gov/parasites/zoonotichookworm/resources/prevention.pdf
					(processing aids); use as adsorbents, absorbents, solvents (product formulation and mixture)	
ı					(Processing mass), and an admironic, apportunity, sorvents (product formation and mixture)	

OEL - Occupational Exposure Limit

TWA – Time-Weighted Average; average exposure over an eight-hour workday or forty-hour workweek

STEL - Short-Term Exposure Limit; a 15 minute average exposure limit, no more than 4 times a day with one hour in between exposures.

C-Ceiling; maximum concentration that cannot be exceeded at any time.

ALAP - As low as possible

CAR - Carcinogen - agent capable of inducing benign or malignant neoplasms (1) confirmed carcinogen, (2) suspected carcinogen

S - Sensitizer - agent to produce respiratory sensitization

R/T - Reproductive toxin or teratogenic -

Reproductive toxin: can cause sterility, reduced fertility, or other adverse reproductive effects (e.g. a mother's ability to produce milk) in animal studies or in people exposed in the workplace.

Chemical Name	CAS#		Notation	1	Industries/Uses	Defense
Chemical Name	CAS#	CAR	S	R/T		Reference
tosin core solder thermal decomposition roducts (colophony)	8050-09-7		X		Manufacture and use of rosin core solder; printing industry (printing and bindery process)	ACGIH 2001 http://www.cdc.gov/niosh/pel88/SOLDER.html http://www.cdc.gov/niosh/nioshtic-2/20041424.html https://www.cdc.gov/niosh/hhe/reports/pdfs/1987-0250-1888.pdf
Silica, crystalline - α-quartz and cristobalite	1317-95-9; 14808-60-7 14464-46-1	2			Electronic and optical industries; manufacture of glass, ceramics, silica-containing products; foundry castings; hydraulic fracturing in gas and oil production; silica flour industry (toothpaste, scouring powder and metal polish); abrassive blasting; mining; construction	ACGIH 2006 http://www.cdc.gov/niosh/topics/silica/default.html
ilicon Carbide Fibrous (including whiskers)	409-21-2	2			Used in sandpaper, composites, ceramics, abrasive grinding wheels, refractory materials; found in the aerospace, automotive, power generation industries, reinforcing materials in ceramic composites, transistors, solar cells, rectifiers	ACGIH 2003 https://www.americanelements.com/silicon-carbide-409-21-2
Strontium chromate, as Cr	02-06-89	2				ACGIH 2001 http://www.cdc.gov/niosh/topics/hexchrom/pdfs/crvi_niosh_osha.pdf
Sulfuric acid	7664-93-9	2			Manufacture of fertilizer and phosphoric acid; petroleum industry (alkylation catalyst); pigments and dyes; industrial and military explosives; electrogalvanized wire (metal cleaning and plating, anodizing of metal, electroplating); detergents; textile and leather industry (treatment of wool, fabric finishing); used industrial water treatment	ACGIH 2004 https://www.cdc.gov/niosh/docs/81-123/pdfs/0577.pdf
ynthetic vitreous fibers Refractory ceramic fibers	-	2			Glass wool, rock wool and slag wool, special-purpose glass fibers, refractory ceramic fibers	ACGIH 2001
Calc Containing asbestos fibers	14807-96-6	1			Found in ceramics, paints, cosmetics, paper, plastics, rubber, roofing, insecticides	ACGIH 2001 http://www.fda.gov/Cosmetics/ProductsIngredients/Ingredients/ucm293184.htm
oluene	108-88-3			X	, , , , , , , , , , , , , , , , , , , ,	ACGIH 2007 https://www.cdc.gov/niosh/docs/81-123/pdfs/0619.pdf
Toluene diisocyanate, 2,4- or 2,6- (or as mixture)	584-84-9 91-08-7		X		Production of polyurethane foams, elastomers, coatings, paints, varnishes, wire enamels, sealants, adhesives, and binders; manufacture of nylon polymers; household products (foam for furniture cushions and carpet padding and waterproof sealants)	ACGIH 2004 https://www.atsdr.cdc.gov/mmg/mmg.asp?id=1139&tid=245 https://www.cdc.gov/niosh/docs/81-123/pdfs/0621.pdf https://www.atsdr.cdc.gov/toxfaqs/TF.asp?id=1454&tid=245
Trichloroethylene	79-01-6	2			Used in vapor degreasing, as a solvent; manufacture of vinylidine chloride	ACGIH 2007 https://www.cdc.gov/niosh/docs/81-123/pdfs/0628.pdf
,2,3- Trichloropropane	96-18-4	2				ACGIH 1015 https://www.cdc.gov/niosh/docs/81-123/pdfs/0631.pdf
,3,5-Triglycidyl-s-triazinetrione	2451-62-9			X		ACGIH 2001 http://www.cdc.gov/niosh/nioshtic-2/20034996.html http://www.pesticideinfo.org/Summary_Chemical.jsp?Rec_Id=PC43628

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Chemical Name	CAS#	Notation			Industries/Uses	Reference
Chemical Panic	CIAS II	CAR	S	R/T	Thrust 163 C365	Reference
Trimellitic anhydride	552-30-7		X		Dye industry (paint and coating additives); pharmaceuticals and agrochemicals; vinyl	ACGIH 2008
					flooring (as an embossing agent); in alkyl and epoxy resins, plasticizers, wall and floor	http://www.cdc.gov/niosh/nioshtic-2/20024355.html
					coverings (as a curing agent)	https://pubchem.ncbi.nlm.nih.gov/compound/11089#section=Use-and-Manufacturing
Uranium (natural)	7440-61-1	1			Ceramics industry (as pigments, coloring porcelain, enamelling); x-ray technology	https://www.cdc.gov/niosh/docs/81-123/pdfs/0650.pdf
Soluble and insoluble compounds, as U					(photographic internsifiers)	https://www.cdc.gov/niosh/docs/81-123/pdfs/0651.pdf
Vinyl bromide	593-60-2	2			Manufacture of flame retardants, copolymers, polymers, and pharmaceuticals	ACGIH 2001
						http://www.cdc.gov/niosh/pel88/593-60.html
Vinyl chloride	75-01-4	2			Manufacture of polyvinyl chloride resins (raw material); plastic industry (PVC pipes, cable	ACGIH 2001
					coating, packaging materials)	http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=51
4-Vinyl cyclohexene	100-40-3			X	Fuel industry (as additives); diluent in epoxy resin manufacture	ACGIH 2001
						https://pubchem.ncbi.nlm.nih.gov/compound/7499#section=Use-and-Manufacturing
Vinyl cyclohexene dioxide	106-87-6			X	Plastic industry (as a diluent in epoxy resins and diepoxides)	ACGIH 2001
						http://www.cdc.gov/niosh/pel88/106-87.html
Vinyl fluoride	75-02-5	2			Plastic industry (produce PVF for raincoats, metal sheeting); paints, coatings, resins;	ACGIH 2001
					polymer production	
Warfarin	81-81-2			X	Application of rodenticide; medical drug to prevent heart attacks, strokes, blood clots	ACGIH 2001
					(anticoagulant, blood thinner)	https://www.cdc.gov/niosh/docs/81-123/pdfs/0665.pdf
						https://www.drugs.com/warfarin.html
Wood dusts					Wood industry; logging and timber industry; pulp and paper mill industry; furniture and	ACGIH 2015
Oak and beech		1			wood-fixture manufacturing; wood related industry (lumber, carpentry, construction)	https://www.cdc.gov/niosh/pel88/wooddust.html
Birch, mahogany, teak, walnut		2				
Wood dusts			X		Wood or lumber industry (processing and handling of woods); lagging and timber industry,	ACGIH 2015
Western red cedar						http://www.cdc.gov/niosh/pel88/wooddust.html
Zinc chromates, as Cr	11103-86-7; 13530-65-9;	1			Used in priming paints for metals (provide resistance against corrosion); spraying of aircraft	ACGIH 2001
	37300-23-5				components (primer); in laboratories	http://www.cdc.gov/niosh/hhe/reports/pdfs/77-127-516.pdf
						http://onlinelibrary.wiley.com/doi/10.1002/3527600418.mb1353065e0015/full