

TGG: ~~JOE~~ ~~MMG~~ RF
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TO: Jim Rutledge

FROM: T. G. Grumbles
DATE: January 7, 1986

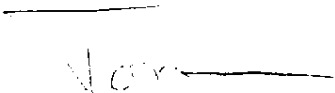
Interoffice
Communication

SUBJ: EPA ACUTELY TOXIC CHEMICALS LIST

VISTA

I have numbered the chemicals on the attached EPA list that we have or use at our plants. The quantities and general use are described below. I'm not sure how this data can be used in the Emergency Communication plan you're revising, but give me a call and we can discuss.

1. Baltimore - Process feedstock
2. LAB - Process feedstock
3. Most Plants - Small quantities in labs or process additives
4. Most Plants - Cylinder quantities cooling tower and H₂O treatment
5. Several Plants - Small quantities process additive
6. Both at Hammond - SO₃ is process feedstock, SO₂ is waste gas
7. LCCP - Process feedstock
8. Several Plants - Common laboratory solvents - small quantities


Thomas G. Grumbles

ajo/8

Attachment

VVV 000017441

COMMUNITY AWARENESS & EMERGENCY RESPONSE



November 21, 1985

TO: Company CAER Coordinators

FROM: Christopher Cathcart *CC*

SUBJECT: EPA's Chemical Emergency Preparedness Program --
"List of Acutely Toxic Chemicals"

As part of EPA's Chemical Emergency Preparedness Program, the Agency plans to distribute a "list of acutely toxic chemicals." Agency officials have pointed out that the list is just one part of a voluntary program intended to help communities, which includes local industry, in identifying and planning for accidental releases of acutely toxic chemicals.

Unfortunately, an unauthorized disclosure of the list was made to a New York Times reporter. I have enclosed a copy of the list as reported in the business section of the Times. I recommend that you send this list to your plant managers, so they can address community inquiries and concerns. The plant managers should consider addressing why they use these chemicals, how the chemicals benefit the public, and how their plants control or reduce the chemicals' potential risks.

EPA officials have told me that this disclosure will not upset the Agency's timetable. EPA will continue with its quality check of the list, and release it in early December, along with descriptive profiles on each chemical. At that time, EPA will seek public comment on the guidance document, the list and the chemical profiles.

The CMA CAER Task Group has reviewed a draft of the Agency's Chemical Emergency Preparedness Program. The overall objectives of the program are compatible with CAER and will complement the chemical industry's efforts at the local level by helping us implement our program.

Enclosure

cc: Communications Contacts
Distribution Contacts
Council of Chemical Associations
State Chemical Association Leaders
Health and Safety Committee
CAER Task Group

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Federal List of 403 Very Toxic Chemicals, With Effects on Human Health

The following list, compiled by the Environmental Protection Agency, names 403 substances manufactured, used and stored in the United States that the agency says can pose an "immediate threat to life and health" in the event of an accident at a chemical facility. The agency has urged municipalities to determine which companies handle them and in what quantities so that any excessive risks can be minimized.

Breakdown into categories was done by The New York Times, based on chemical reference manuals and consultation with experts, who also supplied the description of toxic effects. Some chemicals overlap different categories; the primary use or health effect was chosen.

Acids — 5

Reactive, corrosive. Burn skin, eyes, nasal passages on contact.

- Chloroacetic acid
- Hydrochloric acid
- Hydrogen fluoride (hydrofluoric acid)
- Nitric acid
- Sulfuric acid

Cyanides — 16

Prevent oxygen absorption by the body; some are very highly toxic. Some are used to make plastics; the finished product loses the toxicity. Others are used in extraction of metal from photographic films and ores.

- Acrylonitrile (vinyl cyanide)
- Adiponitrile
- Benzyl cyanide
- Cyanogen bromide
- Cyanogen iodide
- Formaldehyde cyanohydrin
- Hydrocyanic acid (hydrogen cyanide)
- Isobutyronitrile
- Lactonitrile
- Malononitrile
- Methacrylonitrile
- Potassium cyanide
- Potassium silver cyanide
- Propionitrile
- Propionitrile, 3-chloro-
- Sodium cyanide

Industrial Gases — 17

Basic building blocks for many chemicals. Since they are already gases, they can rapidly spread beyond a plant fence after a leak.

- Ammonia
- Arsine
- Bromine
- Chlorine
- Diborane

- Fluorine
- Hydrogen selenide
- Hydrogen sulfide
- Methyl mercaptan
- Nitric oxide
- Nitrogen dioxide
- Ozone
- Phosphine
- Sulfur dioxide
- Sulfur tetrafluoride
- Sulfur trioxide
- Tellurium hexafluoride

Pharmaceuticals — 25

Designed to kill specific organisms, such as bacteria, in small doses. Larger doses are highly toxic to humans.

- Amphetamine
- Bacitracin
- C.I. basic green 1 (brilliant green)
- Cantharidin
- Carbachol chloride
- Colchicine
- Digitoxin
- Digoxin
- Dithiazanine iodide
- Emetine dihydrochloride
- Ergocalciferol (vitamin D)
- Ergotamine tartrate
- Fluorouracil
- Indomethacin
- Mechlorethamine
- Mitomycin C
- Muscimol
- Quabain
- Phenylthiourea
- Phylloquinone (vitamin K)
- Physostigmine
- Physostigmine salicylate
- Picrotoxin
- Tris(2-chloroethyl)amine
- Valipomycin

Chemical Intermediates — 91

Made from basic chemicals, used to produce more complex commercial chemicals. Often much more toxic than finished chemicals.

- Acetone cyanohydrin
- Acetone thiosemicarbazide
- Acrolein
- Acrylyl chloride
- Allyl alcohol
- Allyl amine
- Aniline
- Aniline, 2,4,6-trimethyl-
- Benzal chloride
- Benzeneamine, 3-(trifluoromethyl)-
- Benzene, 1-(chloromethyl)-4-nitro-
- Benzenesulfonyl chloride
- Benzotrithloride
- Benzyl chloride
- Bis(chloromethyl)ketone
- 2-Butene, 1,4-dichloro-, (E)-
- Butyl vinyl ether
- Chloroacetaldehyde
- Chloroethanol

- Chloroethyl chloroformate
- Chloromethyl ether
- Chloromethyl methyl ether
- Cresylic acid
- Crotonaldehyde
- Cyanuric fluoride
- Cyclohexylamine
- Dichloroethyl ether
- Dichloromethylphenylsilane
- Diethyl-p-phenylenediamine
- Diglycidyl ether
- Dimethyl sulfate
- Dimethyl sulfide
- Dimethyl-p-phenylenediamine
- Dioxolane
- Epichlorohydrin
- Ethanesulfonyl chloride, 2-chloro-
- Ethanol, 1,2-dichloro-, acetate
- Ethyl thiocyanate
- Ethylenediamine
- Ethylene fluorohydrin
- Ethylene imine
- Ethylene oxide
- Fluoracetyl chloride
- Formaldehyde
- Furan
- Hexamethylenediamine, N,N'-dibutyl-
- Hydrazine
- Hydrogen peroxide
- Hydroquinone
- Isocyanic acid, 3,4-dichlorophenyl ester
- Isopropyl chloroformate
- Mesitylene
- Methacrolein diacetate
- Methacrylic anhydride
- Methacryloyl chloride
- Methanesulfonyl fluoride
- Methyl chloroformate
- Methyl disulfide
- Methylhydrazine
- Methyl isocyanate
- Methyl isothiocyanate
- Methyl phosphonic dichloride
- Methyl thiocyanate
- Nitrobenzene
- Nitrocyclohexane
- Pentadecylamine
- Phenol
- Phenylhydrazine hydrochloride
- Phosgene
- Phosphorus trichloride
- Phosphorus
- Phosphorus oxychloride
- Phosphorus pentachloride
- Phosphorus pentoxide
- Piperidine
- Propargyl bromide
- Propiolactone, beta-
- Propyl chloroformate
- Propylene imine
- Propylene oxide
- Pseudocumene
- Selenium oxychloride
- Selenous acid
- Semicarbazide hydrochloride
- Sodium selenate
- Sodium selenite
- Sodium tellurite
- Thiocarbazide
- Thiophenol
- Thiosemicarbazide
- Trichloroacetyl chloride

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Pesticide Compounds — 147

Designed to kill target organisms in small doses. Harmful to humans in large doses.

Aldicarb
Aldrin
Aluminum phosphide
Aminopterin
Amiton
Amiton oxalate
Antimycin A
Antu
Arsenic pentoxide
Arsenous oxide
Arsenous trichloride
Azinphos-ethyl
Azinphos-methyl
Bitoscanate
Bromadiolone
Calcium arsenate
Camphechlor
Carbofuran
Carbophenothion
Chlordane
Chlorfenvinfos
Chlormephos
Chlormequat chloride
2-exo-Chloro-6-endo-cyano-2-norbornan-
one O-(methylcarbamoyl)oxime
Chlorophacucione
Chloroxuron
Chlorothiophos
Coumafuryl
Coumaphos
Coumatetralyl
Crimidine
Cyanophos
Cycloheximide
Demeton
Demeton-S-methyl
Dialifos
Dichlorobenzalkonium chloride
Dichlorvos
Dicrotophos
Diepoxybutane
Diethyl chlorophosphate
Diethylcarbamazine citrate
Dimetox
Dimetboate
Dimethyl phosphorochloridate
Dimetilan
Dinitroresol
Dinoseb
Dinoterb
Dioxathion
Diphacincione
Diphosphoramide, octamethyl-
Disulfoton
1,3-Dithiolane-2-carboxaldehyde, 2,4-di-
methyl-, O-(methylcarbamoyl)oxime
EPN
Endosulfan
Endosulfon
Endrin
Ethion
Ethoprophos
Fenamiphos
Fenitrothion
Fensulfoturon
Fluometil
Fluorocetamide
Fluorocetic acid
Fonofos
Formetanate
Formethion
Formparanate
Fosfuran
Fuberidazole
Hexachlorocyclopentadiene
Isobenzan
Isodrin
Isopropylmethylpyrazolyl dimethylcar-
bamate
Leptophos
Lindane
Mephosfolan
Methamidophos
Methidathion
Methiocarb
Methomyl
Methyl bromide
Methyl phentapton
Metolcarb
Mevuphos
Mexacarbate
Monocrotophos
Nicotine
Nicotine sulfate
Norbormide
Oxamyl
Oxydisulfoton
Paraquat
Paraquat methosulfate
Parathion
Parathion-methyl
Paris green

Pentachlorophenol
Perchloromethylmercaptan
Phenarsazine oxide
Phenol, 2,2'-thiobis(4-chloro-6-methyl)-
Phenol, 2,2'-thiobis(4,6-dichloro)-
Phenol, 3-(1-methylethyl), methylcar-
bamate
Phorate
Phosacetim
Phosfolan
Phosmet
Phosphamidon
Phosphonothuic acid, methyl-, O-(4-
nitrophenyl)O-phenyl ester
Phosphonothuic acid, methyl-, O-ethyl
O-(4-(methylthio)phenyl) ester
Phosphonothuic acid, methyl-, S-(2-(di-
isopropylamino)ethyl) O-ethyl ester
Phosphoric acid, dimethyl
4-(methylthio)phenyl ester
Piprotal
Pirimifos-ethyl
Potassium arsenite
Promecarb
Prothoate
Pyriminyl
Sodium arsenate
Sodium arsenite
Sodium cacodylate
Sodium fluoroacetate
Sodium pentachlorophenolate
Strychnine
Strychnine sulfate
Sulfotep
TEPP
Terbufos
Tetraethyl tin
Thiocyanic acid, (2-benzothiazolylthio)-
methyl ester
Thiofanox
Thiometon
Thionazin
Thiourea, (2-chlorophenyl)-
Thiourea, (2-methylphenyl)-
Triamphos
Triazofos
Trichloronate
Trichlorophen
Trimethyl tin chloride
Triphenyl tin chloride
Warfarin
Warfarin sodium
Zinc phosphide
Zinc, dichloro[4,4-dimethyl-
5-[[[(methylamino)carbonyl]oxy]imino]
pentamethylene]-, (T-4)-

Plasticizing Compounds — 26

Some overlap with cyanides. These are small molecules, much more dangerous than finished product, that are chained together to form stable plastics and synthetic rubbers.

Acrylamide
Butadiene
Dibutyl phthalate
Dimethyl phthalate
Diocyl phthalate
Dimethyldichlorosilane
Dithioburet
Isophorone di-isocyanate
Methacryloyloxyethyl isocyanate
Methyl 2-chloroacrylate
Methyl vinyl ketone
Methyltrichlorosilane
Oxetane, 3,3-bis(chloromethyl)
Propylene glycol, allyl ether
Pyridine, 2-methyl-5-vinyl
Silane, (4-aminobutyl)diethoxymethyl-
Toluene, 2,4-di-isocyanate
Toluene, 2,6-di-isocyanate
Trichloro(chloromethyl)silane
Trichloro(dichlorophenyl)silane
Trichloroethylsilane
Trichlorophenylsilane
Triethoxysilane
Trimethylchlorosilane
Vinylnorbornene
Vinyl acetate monomer

Metals and Compounds — 29

Wide variety of uses, from photochemicals to pesticides to gasoline additives. Typically they interfere with human enzymes, inhibiting the metabolism of food and other substances.

Cadmium oxide
Cadmium stearate
Chromic chloride
Cobalt
Cobalt carbonyl
Ethylmercuric phosphate
Gallium trichloride
Iridium tetrachloride

Iron pentacarbonyl
Mercuric acetate
Mercuric chloride
Mercuric oxide
Methoxyethylmercuric acetate
Methylmercuric dicyanamide
Nickel
Nickel carbonyl
Osmium tetroxide
Phenylmercury acetate
Platinous chloride
Platinum tetrachloride
Rhodium trichloride
Tellurium
Tetraethyl lead
Tetramethyl lead
Thallic oxide
Thallic carbonate
Thallic chloride
Thallic malonate
Thallic sulfate

Solvents — 6

Widely used in paints and cleaning materials. They cause damage to the liver, nervous system and other systems.

Cyclopentane
Carbon disulfide
Chloroform
Cumene
Isopropyl alcohol
Methanol (methyl alcohol)

Chemical Warfare Agents — 7

Often chemically related to pesticides, they are designed to harm humans. Some cause violent respiratory system blistering. Others cause nerve damage. Most have been made for the Defense Department and stored at classified sites.

Ethylbis(2-chloroethyl)amine (nitrogen mustard gas)
Isosulfophate
Lewisite
Mustard gas
Sarin
Tabun
Tetranitromethane (tear gas)

Flavors and Fragrances — 3

Used in manufacture and processing. Like medicines, beneficial in small doses, harmful in large doses.

Butyl isovalerate
Carvone (peppermint, caraway)
Orotic acid

Catalysts and Reagents — 12

Used to assist and measure chemical reactions.

Ammonium chloroplatinate
Antimony pentafluoride
Benzenearsonic acid
Boron trichloride
Boron trifluoride
Boron trifluoride compound with methyl ether
Lithium hydride
Peracetic acid
Pyridine, 4-amino-
Sodium azide
Titanium tetrachloride
Vanadium pentoxide

Miscellaneous — 19

Chemicals for which no use is known; those used largely in research; those with odd uses.

Cobalt (II), N,N'-ethylenebis(3-fluoro-salicylideneiminato)-
Decaborane(14)
Dimethylhydrazine
Hexachloronaphthalene
Isopropyl formate
Manganese, tetracarbonyl methylcyclopentadienyl
Nitrosodimethylamine
Organorhodium complex
Pentaborane
Pentachloroethane
Phenyl-dichloroarsine
Phenylsilatrane
Pyrene
Pyridine, 4-nitro-, 1-oxide
Salcomene
Sodium anthraquinone-1-sulfonate
Sulfoxide, 3-chloropropyl octyl
Trimethylolpropane phosphate
Xylylene dichloride

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