EXHIBIT 1

CHEMICAL CLASSIFICATION LIST

1. Pyrophoric Chemicals

1.1. Aluminum alkyls: R3Al, R2AlCl, RAlCl2

Examples: Et3Al, Et2AlCl, EtAlCl2, Me3Al, Diethylethoxyaluminium

1.2. Grignard Reagents: RMgX (R=alkyl, aryl, vinyl X=halogen)

1.3. Lithium Reagents: RLi (R = alkyls, aryls, vinyls)

Examples: Butyllithium, Isobutyllithium, sec-Butyllithium, tert-Butyllithium, Ethyllithium, Isopropyllithium, Methyllithium, (Trimethylsilyl)methyllithium, Phenyllithium, 2-Thienyllithium, Vinyllithium, Lithium acetylide ethylenediamine complex, Lithium (trimethylsilyl)acetylide, Lithium phenylacetylide

1.4. Zinc Alkyl Reagents: RZnX, R2Zn

Examples: Et2Zn

1.5. Metal carbonyls: Lithium carbonyl, Nickel tetracarbonyl, Dicobalt octacarbonyl

1.6. Metal powders (finely divided): Bismuth, Calcium, Cobalt, Hafnium, Iron, Magnesium, Titanium, Uranium, Zinc, Zirconium

1.7. Low Valent Metals: Titanium dichloride

1.8. Metal hydrides: Potassium Hydride, Sodium hydride, Lithium Aluminum Hydride, Diethylaluminium hydride, Diisobutylaluminum hydride

1.9. Nonmetal hydrides: Arsine, Boranes, Diethylarsine, diethylphosphine, Germane, Phosphine, phenylphosphine, Silane, Methanetellurol (CH3TeH)

1.10. Non-metal alkyls: R3B, R3P, R3As; Tributylphosphine, Dichloro(methyl)silane

1.11. Used hydrogenation catalysts: Raney nickel, Palladium, Platinum

1.12. Activated Copper fuel cell catalysts, e.g. Cu/ZnO/Al2O3

1.13. Finely Divided Sulfides: Iron Sulfides (FeS, FeS2, Fe3S4), and Potassium Sulfide (K2S)

1.14. Elements: Phosphorus, Cesium, Lithium, Potassium, Sodium, Sodium Potassium Alloy (NaK), Aluminum Phosphide (AlP)

2. Water Reactive chemicals

Aluminum alkyl halides

Aluminum alkyl hydrides

Aluminum alkyls

Aluminum borohydride or Aluminum borohydride in devices

Aluminum Carbide

Aluminum ferrosilicon powder

Aluminum hydride

Aluminum phosphide

Aluminum powder, uncoated

Aluminum silicon powder, uncoated

Barium

Boron trifluoride dimethyl etherate

Calcium

Calcium carbide

Calcium cyanamide with more than 0.1 percent of calcium carbide

Calcium hydride

Calcium manganese silicon

Calcium phosphide

Calcium silicide

Cells, containing sodium

Cerium, turnings or gritty powder

Cesium or Caesium

Diethylzinc

Dimethylzinc

Ethyldichlorosilane

Ferrosilicon, with 30 percent or more but less than 90 percent silicon

Hexyllithium

Lithium

Lithium alkyls

Lithium aluminum hydride

Lithium aluminum hydride, ethereal

Lithium borohydride

Lithium ferrosilicon

Lithium hydride

Lithium hydride, fused solid

Lithium nitride

Lithium silicon

Magnesium alkyls

Magnesium aluminum phosphide

Magnesium granules, coated, particle size not less than 149 microns

Magnesium hydride

Magnesium phosphide

Magnesium silicide

Magnesium, powder or Magnesium alloys, powder

Maneb or Maneb preparations with not less than 60 percent maneb

Methyl magnesium bromide, in ethyl ether

Methyldichlorosilane

Phosphorus pentasulfide, free from yellow or white phosphorus

Potassium

Potassium borohydride

Potassium phosphide

Potassium sodium alloys

Potassium, metal alloys

Rubidium

Sodium

Sodium aluminum hydride

Sodium borohydride

Sodium hydride

Sodium phosphide

Stannic phosphide

Strontium phosphide

Trichlorosilane

Zinc ashes

Zinc phosphide

Zinc powder or Zinc dust

3. Potentially explosive Compound Classes

Acetylene (-C≡C-)

Acyl hypohalites (RCO-OX)

Azide Organic (R-N3)

Azide Metal (M-N3)

Azo (-N=N-)

Diazo (=N=N)

Diazosulphide (-N=N-S-N=N-)

Diazonium salts (R-N2+)

Fulminate (-CNO)

Halogen Amine (=N-X)

Nitrate (-ONO2)

Nitro (-NO2)

Aromatic or Aliphatic Nitramine (=N-NO2) (-NH-NO2)

Nitrite (-ONO)

Nitroso (-NO)

Ozonides

Peracids (-CO-O-O-H)

Peroxide (-O-O-)

Hydroperoxide (-O-O-H)

Metal peroxide (M-O-O-M)

Explosive Salts:

Bromate salts (BrO3-)

Chlorate salts (ClO3-)

Chlorite salts (ClO2-)

Perchlorate salts (ClO4-)

Picrate salts (2,4,6-trinitrophenoxide)

Picramate salts (2-amino-4,6-dinitrophenoxide)

Hypohalite salts (XO-)

Iodate salts (IO3-)

3.1. Potentially Explosive Chemicals

Acetyl peroxide

Acetylene

Ammonium nitrate

Ammonium perchlorate

Ammonium picrate

Ba/Pb/Hg azide (heavy metal azides)

Li/K/Na azide

Organic azides

Benzoyl peroxide

Bromopropyne

Butanone peroxide

Cumene peroxide

Diazodinitrophenol

Dinitrophenol

Dinitrophenylhydrazine

Dinitroresorcinol

Dipicryl amine

Dipicryl sulphide

Dodecanoyl peroxide

Ethylene oxide

Lauric peroxide

MEK peroxide

Mercury fulminate, Silver fulminate

Nitrocellulose

Nitrogen trifluoride

Nitrogen triiodide

Nitroglycerine

Nitroguanidine

Nitromethane

Nitrourea

Picramide

Picric acid (trinitrophenol)

Picryl chloride

Picryl sulphonic acid

Propargyl bromide (neat)

Sodium dinitrophenate

Succinic peroxide

Tetranitroaniline

Trinitroaniline

Trinitroanisole

Trinitrobenzene

Trinitrobenzenesulphonic acid

Trinitrobenzoic acid

Trinitrocresol

Trinitronaphthalene

Trinitrophenol (picric acid)

Trinitroresorcinol

Trinitrotoluene

Urea nitrate

4. Acutely Toxic Chemicals

Abrin

N-Acetoxy-2-acetylaminofluorene

Acrolein

Acryloyl chloride

Actinomycin D

Aldicarb

o-Aminoazobenzene

2-Aminofluorene

4-aminopyridine

Ammonium vanadate

Anabasine

Apholate

Arsenious Acid, Monosodium Salt

Arsenic acid

Arsenic oxide

Arsenic pentoxide

Arsenic trioxide

Barium cyanide

Benzenethiol or Thiophenol

Beryllium powder

N,N-bis(2-chloromethyl)-2-Naphthylamine

Bromoethyl methanesulfonate

1,4-Butanediol dimethylsulfonate

Calcium cyanide

Cantharadin

2-Chloro-4-dimethyl-amino-6-methylpyrimidine

2-Chlorophenyl Thiourea

Copper cyanide

Cyanide salts

Cyanogen halide

Cyclophosphamide (2-bis(2-chloroethyl)-aminotetrahydro-2H-1,3,2- oxazaphosphorine-2-oxide)

Dichloromethyl ether

Dichlorophenylarsine

Diethyl-arsine

Digalen

Digifolin

Digoxin

7,12-Dimethylbenze[a]anthracene

3,3'-Dimethoxybenzidine

3,3'-Dimethylbenzidine

Dimethylethylenimine

1,2-Dimethylhydrazine

3,3'-Dimethoxybenzidine dihydrochloride

2,4-Dinitrophenol

1,4-Dinitrosopiperazine

Duboisine

Ethionine

Ethyl cyanide

Ethylenimine

Ethylene glycol dinitrate

Ethyl methanesulfonate

Fluoroacetamide

Fluroacetic acid

Gitalin

Heroin

Hydrazoic acid

Hydrogen cyanide

N-Hydroxy-2-acetylaminofluorene

Hyoscyamine

Inorganic arsenic

Isobenzan

K-Strophanthin

Lanatoside

Lysergic acid diethylamide

3-Methylcholanthrene

Methyl chloromethyl ether

4,4'-Methylene bis-(2-chloraniline)

Methylhydrazine

Methyl methanesulfonate

Nickel cyanide

Nicotine salicylate

N-[4-(5-Nitr o-2-furyl)-2-thiazoly]-formamide

Nitroglycerin

N-Nitroquinoline-1-oxide

N-Nitrosodimethylamine

N-Nitroso-N-methylurethane

Pantopon

Parathion

Paroxon

Phenyl-Arsonous dichloride

Phenyl Thiourea

Phosphorodithioic acid

Phosphorous (Yellow)

Potassium cyanide

Propylenimine

2-Propylpiperidine

Ricin

Scopolamine

Sarin

Silver cyanide

Sodium Azide

Sodium Selenate

Sodium cyanide

Sulfotepp

Tabun

Tepp

2,3,7,8-Tetrachlorodibenzofuran

Tetraethyl lead

Tetramethyl Ammonium Hydroxide

Thallic oxide

Thallium(I) selenite

Thallium(I) sulfate

Thimet

Thiophenol

m-Toluenediamine

Uracil mustard

Vanadium pentoxide

Zinc cyanide

Zinc phosphide

Compounds with a high level of acute toxicity are defined by LD50 and LC50 levels.

Oral LD50 (Rats, per kg)	Skin Contact LD50 (Rabbits, per kg)	Inhalation LC50 (Rats, ppm for 1 h)	Inhalation LC50 (Rats, mg/m3 1 h)
< 50 mg	< 200 mg	< 200	< 2000

5. Acutely Toxic Gases

Ammonia

Arsenic pentafluoride

Arsine

Boron trichloride

Boron trifluoride

Carbon Monoxide

Cyanogen

Cyanogen chloride

Chlorine

Diazomethane

Diborane

Fluorine

Germane

Hexaethyl tetraphosphate

Hydrogen bromide

Hydrogen chloride

Hydrogen fluoride

Hydrogen sulfide

Hydrogen selenide

Methyl mercaptan

Nitric oxide

Nitrogen dioxide

Nitrogen Tetroxide

Oxygen difluoride

Phosgene

Phosphine

Phosphorus pentafluoride

Selenium hexafluoride

Silicon tetrafluoride

Stibine

Sulfur tetrafluoride

Trimethylsilyldiazomethane

6. Peroxide Forming Chemicals

6.1. Class 1: These chemicals form peroxides after prolonged storage. These chemicals should be tested for the formation of peroxides on a periodic basis.

Divinyl Acetylene
Divinyl Ether
Isopropyl Ether
Sodium or Potassium Amide
Vinylidene Chloride (1,1-dichloroethylene)
Potassium metal

6.2. Class 2: Chemicals that form explosive levels of peroxides when concentrated through distillation, evaporation or exposure to air after opening.

Cyclohexene
Cyclopentene
Decalin
Diacetylene (gas)
Dicyclopentadiene
Diethyl ether (ether)
Dioxane
Ethylene glycol dimethyl ether (glyme)
Ethylene glycol ether acetates
Furan
Methyl Isobutyl Ketone
Methyl Acetylene (gas)
Methyl Cyclopentane

Tetrahydrofuran (THF)

Tetralin (tetrahydronaphthalene)

Vinyl ethers.

6.3. Class 3: Chemicals which are a hazard due to peroxide initiation of polymerization. When stored in a liquid state, the peroxide forming potential increases significantly.

Acrylic acid

Acrylonitrile

Butadiene

Chlorobutadiene

Chloroprene

Chlorotrifluoroethylene (gas)

Methyl Methacrylate

Styrene

Tetrafluoroethylene (gas)

Vinyl Acetate

Vinyl Acetylene (gas)

Vinyl Chloride (gas)

Vinyl Pyridine

Vinylidene chloride

7. Strong Corrosives

7.1. Strong Acids

Hydrobromic acid

Hydrochloric acid

Hydrofluoric acid

Nitric acid

Perchloric acid

Sulfuric acid

7.2. Strong Bases

Barium hydroxide

Calcium hydroxide

Lithium hydroxide

Potassium hydroxide

Rubidium hydroxide

Sodium hydroxide

Strontium hydroxide

8. Strong Oxidizing Agents (These can also be grouped: perchlorates, peroxides, permanganates, nitrates, etc.**)**

Ammonium perchlorate

Ammonium permanganate

Barium peroxide

Bromine

Calcium chlorate

Calcium hypochlorite

Chlorine trifluoride

Chromium anhydride

Chromic acid

Dibenzoyl peroxide

Fluorine

Hydrogen peroxide

Magnesium peroxide

Nitrogen trioxide

Oxygen

Perchloric acid

Potassium bromate

Potassium chlorate

Potassium peroxide

Propyl nitrate

Sodium chlorate

Sodium chlorite

Sodium perchlorate

Sodium peroxide

9. Strong Reducing Agents (Most of these if not all are water reactive chemicals)

Barium

Calcium

Lithium

Lithium aluminum hydride

Magnesium

Potassium

Sodium

Sodium borohydride

10. Regulated Carcinogens

2-Acetylaminofluorene

Acrylonitrile

Actinolite

4-Aminodiphenyl

Amosite

Anthophyllite

m-Arsenic Acid

o-Arsenic Acid

Arsenic Acid Hemihydrate

Arsenic Disulfide

Arsenic, Inorganic

Arsenic Pentoxide

Arsenic Tribromide

Arsenic Trichloride

Arsenic Trifluoride

Arsenic Triiodide

Arsenic Trioxide

Arsenic Triselenide

Arsenic Trisulfide

Arsenical Dip

Arsenious Acid

Asbestos

Benzene

Benzidine

1,3-Butadiene

Cadmium & Cd compounds

Cadmium Acetate

Cadmium Bromide

Cadmium Carbonate

Cadmium Chloride

Cadmium Cyanide

Cadmium Fluoride

Cadmium Hydroxide

Cadmium Iodide

Cadmium Nitrate

Cadmium Oxide

Cadmium Potassium Cyanide

Cadmium Selenate

Cadmium Selenide

Cadmium Stearate

Cadmium Sulfate

Cadmium Sulfide

Cadmium Telluride

Cadmium Tungstate

Cadmium-Copper Alloy

Calcium Arsenate

Calcium Arsenite

Chloroethylene

bis(Chloromethyl)ether

Chloromethylmethylether

Chrysotile

Cobalt (II) Arsenate

Coke oven emissions

Copper (II) Acetoarsenite

Crocidolite

Cupric Acetoarsenite

Cupric Arsenite

1,2-Dibromo-3-chloropropane

3,3'-Dichlorobenzidine

4-Dimethylaminoazobenzene

N,N-Dimethylnitrosoamine

Disodium Arsenate

Disodium Hydrogen Arsenate

Donovan's Solution

Ethylene Oxide

Ethyleneimine

Formaldehyde

Fowler's Solution

Gallium Arsenide

Inorganic Arsenic

Lead Arsenate

Lead Arsenite

Magnesium Arsenate

Methylchloromethylether

Methylene chloride

4,4'-Methylenedianiline

Monochlorodimethylether

2-Naphthylamine

alpha-Naphthylamine

beta-Naphthylamine

4-Nitrobiphenyl

N-Nitrosodimethylamine

Paraformaldehyde

Potassium Arsenate

Potassium Arsenite

beta-Propiolactone

Sodium Arsenate

Sodium Arsenite

Talc (containing asbestos fibers)

Tremolite [asbestiform]

Trisodium Arsenate Heptahydrate

Vinyl Chloride

Vinyl Cyanide