This Section describes precautions that should be taken when conducting procedures involving chemically hazardous materials including:

- Flammable (5.1)
- Corrosive (5.2)
- Reactive (5.3)
- Compressed Gases (5.4)

- Cryogenic Systems (5.5)
- Acute Toxins (5.6)
- Reproductive Toxins (5.7)
- Select Carcinogens (5.8)

The faculty are responsible for the use of hazardous materials and must inform everyone involved in working with such materials of the associated hazards, and appropriate emergency response measures to be taken. In addition, all participants should:

- know the toxicity of the materials (e.g. by reviewing the MSDS for the material)
- follow the recommended precautions
- use the appropriate safety and personal protective equipment to minimize all routes of potential exposure (e.g., inhalation, dermal contact, and ingestion)
- identify and label all materials and work areas where hazardous materials are used
- clean up immediately, appropriately decontaminating for the materials being used
- be aware of necessary safety precautions and specific actions to be taken in the event of an emergency

Written Protocols and Notifications

Prior to purchasing or using any amount of an acute toxin (Section 5.6) or perchloric acid (Section 5.2.3), a written protocol is required. The Safety Committee may also request protocols for the use of other hazardous materials. Written protocols must be submitted to the Chair of the Safety Committee at least three weeks prior to the anticipated purchase date (or use date for materials already at CSC) for approval by the Safety Committee, and include the following information.

- faculty name
- chemical name, CAS number, and hazard information
- anticipated date of purchase and use
- location of storage and use
- quantity to be stored and used in each experiment
- names of all users and description of user training
- experimental procedure
- emergency procedures (include fire, spill, and personal contamination)
- waste disposal procedures
- protective equipment to be used

The protocol must be reviewed with each user and a record of training submitted to the Lab Manager. The experiment can not be conducted until approval is obtained from the Safety Committee.

Prior to purchasing or using any amount of a select carcinogen (Section 5.8) or reproductive toxin (Section 5.7), a written notification is required, including the following information:

- faculty name
- chemical name, CAS number, and hazard information
- anticipated date of purchase and use
- location of storage and use

Each user must be informed of the hazard(s) of the chemicals and proper experimental and emergency procedures. Notification should be submitted to the Laboratory Manager at least one week prior to anticipated use. The Laboratory Manager may approve, request additional information, or refer to the Safety Committee needs for review. The Safety Committee may request a written protocol for use of the chemical. The experiment may proceed unless additional information is requested by the Lab Manager, or a protocol is requested by the Safety Committee.

5.1 FLAMMABLE CHEMICALS

In order for a flammable chemical fire to occur, three conditions must be met:

- a flammable gas or vapor must be at a concentration between the lower and upper flammable limits
- an oxidizing agent (e.g., the air in the room or a chemical oxidizer) must be available
- there must be a source of ignition or the material is at its auto-ignition temperature

5.1.1 Definitions

Safe use and storage of flammable chemicals, and the evaluation of fire hazard, requires understanding the following important definitions. Information on the physical characteristics of flammable chemicals is listed on manufacturer's container labels and on the Material Safety Data Sheet.

- 1. **Auto-ignition Temperature** the minimum temperature that will initiate a self-sustained combustion of liquid, gas or solid in the absence of a spark or flame; the lower the auto-ignition temperature the greater the fire hazard.
- 2. **Boiling point** the temperature at which the vapor of the liquid is in equilibrium with atmospheric pressure; the lower the boiling point the greater the fire hazard.
- 3. **Flammable or Explosion limits** the minimum (lower) or maximum (upper) concentration of a gas or vapor in air, by volume percent, in which a fire or explosion can occur upon ignition in a confined area; the wider the range of the explosion limits and the lower the lower limit, the greater the fire/explosion hazard.
- 4. **Flammable Gas** gases which form a flammable mixture in air at less than or equal to 13% by volume; or the flammable range (explosive range) in air is wider than 12 percent regardless of the lower limit (U.S. Department of Transportation definition).

5. **Flammable or Combustible liquids** - are divided into several classes based on the degree of fire hazard as described in Table 5-1.

| Table 5-1 CLASSES OF FLAMMABLE AND COMBUSTIBLE LIQUIDS | | | | |
|---|------------------------|------------------------|------------------------------|--|
| CLASS | BOILING POINT | FLASH POINT | EXAMPLES | |
| | °C(°F) | °C(°F) | | |
| 1A Flammable Liquid | <37.8 (100) | <22.8 (73) | ethyl ether, pentane | |
| 1B Flammable Liquid | <u>></u> 37.8 (100) | <22.8 (73) | acetone, ethyl alcohol | |
| 1C Flammable Liquid | - | <u>></u> 22.8 (73) | butanol, isoamyl acetate | |
| | | and <37.8 (100) | | |
| 2 Combustible Liquid | - | <u>></u> 37.8 (100) | formalin, cyclohexanone | |
| _ | | and <60.0 (140) | | |
| 3A Combustible Liquid | - | <u>>60.0 (140)</u> | phenol, dichlorobenzene | |
| | | and <93.3 (200) | | |
| 3B Combustible Liquid | - | <u>>93.3 (200)</u> | ethylene glycol, mineral oil | |
| Source: National Fire Protection Association, 2003. Flammable and Combustible Liquids Code, | | | | |
| NFPA 30. | | | | |

- 6. **Flammable Solid** a nonexplosive material that is capable of producing fire as a result of: friction; water exposure; air exposure; heat retained from synthesis or processing; or, when ignited, burns so vigorously and persistently so as to create a hazard.
- 7. **Flash point** the minimum temperature at which a liquid gives off vapor in sufficient concentration to form an ignitable mixture with air near the surface of the liquid also applies to certain solids that evaporate or volatilize; the lower the flashpoint the greater the fire hazard.
- 8. **Vapor Density** the weight of a volume of pure vapor or gas compared to the weight of an equal volume of dry air at the same temperature and pressure; vapor densities greater than one indicate the vapor or gas is heavier than air.

5.1.2 Storage and Dispensing

The quantity of flammable chemicals, liquids, solids and gases stored in laboratories should be kept at an absolute minimum. Flammable chemicals should only be ordered in quantities that can be used in the course of a semester.

For those flammables that must be stored in the laboratory, the preferred storage methods are in flammable storage cabinets meeting NFPA standards for liquids or solvents or in UL or FM approved flammable safety cans. Total volume stored in a flammable storage cabinet should not exceed the rated capacity of the cabinet. Flammable chemicals should not be stored outside of the flammable cabinets without the express permission of the Lab Manager.

If refrigeration is required, the refrigerator or freezer must meet NFPA Standards for flammable storage. Flammable materials refrigerators and freezers have spark-free interiors. All units designed for flammable storage are clearly marked as "approved for flammable

storage". All units not approved are clearly marked "not for flammable storage" or other similar wording.

5.1.3 Laboratory Use

All laboratory procedures using flammable chemicals should:

- minimize the release of flammable vapors
- prevent the travel or accumulation of vapors
- eliminate sources of ignition
- minimize the amount of flammable chemical or other combustible materials (e.g., paper) in the vicinity of the handling area

The following precautions should always be followed when working with flammable chemicals. *These precautions do not apply to the use of natural gas as a fuel for combustion*. Additional precautions may be necessary in certain situations.

- Use fume hoods whenever possible, particularly when transferring or heating flammable liquids.
- Always use flammable gases in a fume hood.
- Never use open flames in the same area where flammables are being used, unless it is part of an experimental procedure, approved by the faculty member.
- Control other sources of ignition and heat in the laboratory such as electric motors and ovens in areas where flammable vapors are expected to exceed 10% of the lower flammability limit (refer to MSDS or other current references).
- Use only electrical equipment (e.g., heating and stir plates) that is labeled as explosion proof (a.k.a. intrinsically safe).
- When transferring flammable liquids from a metal container, ground the metal container.
- Minimize the generation of dust when handling flammable solids.
- Make sure you have the proper extinguishing media in the vicinity of the operation (e.g., Class D powder for combustible metals).
- Never leave solvent distillation processes unattended.

The Lab Manager and Safety Committee will assist in evaluating the hazards of particular operations or experiments upon request.

5.2 CORROSIVE CHEMICALS

Corrosives are one of the most commonly encountered hazards in the laboratory. The major classes of corrosive chemicals are:

- strong acids and bases
- dehydrating agents
- oxidizing agents

Some chemicals, such as sulfuric acid, belong to more than one class. Corrosives are chemicals that can cause visible destruction of or irreversible alteration in living tissue, as well as destruction of other materials. In addition, many corrosives have other hazards such as reactivity (e.g., perchloric acid), flammability (e.g., organic acids), and toxicity (e.g., phenol).

The *strength* of acids and bases is defined as the degree of ionization of the acid or base in water. Inorganic, or mineral, acids (e.g., hydrochloric acid - a strong acid) generally ionize more than organic acids (e.g., acetic acid - a weak acid). Similarly, sodium hydroxide is highly ionized and classified as a strong base, whereas ammonium hydroxide is slightly ionized and characterized as a weak base.

The *concentration* of the acid or base, which is unrelated to its strength, refers to the percentage of the chemical dissolved in water. The *corrosivity* of acids and bases is dependent on their strength and concentration.

Dehydrating agents, such as sulfuric acid, sodium hydroxide, calcium oxide, and glacial acetic acid are corrosive because of their strong affinity for water. This reaction with water is extremely exothermic. Because of this exothermic reaction with water, **concentrated acids should always be added slowly to water**. If water is added to the concentrated acid, the rapid generation of heat can cause the water to vaporize, causing the hot concentrated acid solution to splash.

5.2.1 Hazards of Selected Corrosives

Corrosives, in their solid, liquid and vapor state, can cause acute and chronic damage to human tissue. *Acute hazards* can be manifested as burns, ulceration, permanent tissue damage, or toxic effects. Acid burns are generally perceived as more painful than base burns, which is due to the formation of a protective protein layer that resists further penetration of the acid. In fact, tissue damage from bases is often more serious, as no protective layer is formed and the injury penetrates deeper. Many corrosives also have *chronic hazards*, repeated exposure to even dilute solutions or vapors can cause dermatitis, bronchitis, or eye damage. The destructive effect of corrosives is greatly increased when they are used at elevated temperatures.

Some corrosives also pose physical hazards. For example, when in contact with metal many inorganic acids release hydrogen gas (flammable) posing a serious fire and explosion hazard.

<u>The following are examples of some of the hazards of commonly used corrosives</u>. The list is by no means exhaustive. The hazards of each corrosive should be thoroughly investigated prior to use.

- Sulfuric Acid is a strong acid, a dehydrating agent, and an oxidizing agent. As a dehydrating agent, it is highly water-reactive, generating tremendous amounts of heat on contact with water. It is very destructive to tissue and metals, and releases hydrogen gas (flammable) on contact with active metals (e.g., Na, Mg, Ca, Rb, K, Al, Mn, Zn, Fe, Ni). Fuming sulfuric acid is even more hazardous and produces extremely hazardous vapors.
- Nitric Acid is a strong acid and powerful oxidizing agent. Nitric acid is extremely corrosive and can release toxic vapors (hydrogen and nitrogen oxides) on contact with most metals. Nitrogen oxides can cause delayed respiratory distress, pulmonary edema (fluid in the lungs) and death. Fuming nitric acid is more dangerous than regular nitric acid, again due to the presence of nitrogen oxides. Fuming nitric acid is listed as an acute toxin in Section 5.6.
- The Halogen Acids include hydrofluoric (HF), hydrochloric (HCl), hydrobromic (HBr), and hydriotic acid (HI). The corresponding acid gases -- hydrogen fluoride, hydrogen chloride, hydrogen bromide, and hydrogen iodide -- are very soluble in water; upon exposure to moisture on the body, formation of the acid occurs. All are strong acids and release hydrogen on contact with active metals.
- Hydrofluoric Acid is extremely corrosive and attacks glass as well as metal. It is extremely dangerous in all concentrations. It causes severe slow-healing burns to tissue that may not be noticed for several hours. It can also cause severe and permanent damage to the respiratory system, including fatal pulmonary edema, and blindness. In addition to these corrosive effects, it can cause delayed systemic poisoning including depletion of tissue calcium and magnesium. It is listed as an Acute Toxin in Section 5.6 and special handling instructions are included in Section 5.2.4.
- Perchloric Acid is a strong acid and at temperatures above 160°C a strong oxidizing and dehydrating agent. It may decompose explosively when heated; and if distilled, dried, or reacted with dehydrating agents or any oxidizable materials, the mixture may spontaneously explode. It forms flammable hydrogen gas on contact with many metals; and forms explosive metal perchlorates on contact with certain metals. Perchloric acid is especially hazardous at concentrations above 70%. Special handling instructions, including required Safety Committee protocol approval, are listed later in Section 5.2.3.
- Acetic Acid is a severe irritant to the skin and eyes. Severe irritation can occur at 25 ppm, but eye damage can occur at lower concentrations. Glacial (100%) acetic acid causes severe eye and tissue damage, is a dehydrating agent, reacts violently with oxidizing agents, and has a flash point of 110°F.

- Phenol is a crystalline solid that adsorbs moisture from the air. In addition to being corrosive, it is highly toxic and readily absorbed through the skin as a liquid or vapor.
- Sodium and potassium hydroxides are strong corrosives and often referred to as caustics, a term referring to hydroxides. They are both solids which readily absorb water; and can absorb enough water from the skin to cause severe injury if not washed off immediately. They are both dehydrating agents. They cause severe and permanent eye damage. At low concentrations, the sensation of irritation may not occur for several hours, and can result in severe ulceration. They are even more hazardous in heated solutions.

5.2.2 Laboratory Use of Corrosives

- 1. Always investigate the additional hazards such as flammability and reactivity before using.
- 2. Purchase only the amount needed, small quantities are recommended for easier handling and storage.
- 3. Bottle carriers or some other means of containment should be used when moving chemicals between floors.
- 4. Store separately from incompatible materials.
- 5. Wear appropriate protective equipment, as described in Section 4.5.
- 6. Always add chemicals slowly and always add concentrated acid to water.
- 7. Keep ignition sources away from inorganic acid spills (that may produce flammable hydrogen gas on contact with metals), and from glacial acetic acid, which as an organic acid is a combustible material.
- 8. When neutralizing corrosives, never add a concentrated acid to base or a concentrated base to acid.

5.2.3 Special Precautions for Perchloric Acid

- 1. Use of perchloric acid requires a written protocol approved by the CSC Safety Committee.
- 2. The number of people using the acid should be limited to the extent possible, and all users should be familiar with the chemistry of the acid, its hazards, proper handling procedures, and emergency procedures.
- 3. Heating of perchloric acid is prohibited.
- 4. Perchloric acid should never be used in areas where the material would be absorbed if spilled.
- 5. Perchloric acid should be purchased on an as-needed basis in small containers and must be stored separately from incompatible materials.
- 6. Prior to performing experiments using perchloric acid, disposal procedures should be defined.
- 7. Spilled solutions must not be allowed to dry. They should be neutralized and then soaked up with rags or paper towels. The area should then be rinsed with a large quantity of water. The wet rags or paper towels should be placed in a container, and the container filled with water and tightly closed. The container should be disposed of as hazardous waste.

8. Refer to Furr A.K. (ed.), 2000 CRC Handbook of Laboratory Safety, 5th Edition, and Schilt, A.A., 1979. Perchloric Acid and Perchlorates, for additional precautions.

5.2.4 Special Precautions for Hydrofluoric Acid

- 1. Hydrofluoric is an acute toxin. A written protocol approved by the Safety Committee is required.
- 2. The number of people using the acid should be limited to the extent possible, and all users should be familiar with the chemistry of the acid, its hazards, proper handling procedures and emergency procedures.
- 3. When possible, the acid should be purchased at the concentration to be used to avoid preparation of solutions.
- 4. Hydrofluoric acid should be purchased on an as-needed basis in small containers.
- 5. Always use in a functioning fume hood with the sash as low as possible and no higher than 15 inches.
- 6. Keep ignition sources away from the area.
- 7. Wear chemical splash goggles, a face shield providing face and neck protection, neoprene or polyvinyl chloride gloves, non-absorbent resistant clothing, and a rubber or neoprene apron.
- 8. Dispose of protective clothing if contaminated per directions from Lab Manager.
- 9. Wash hands thoroughly after each use.
- 10. Use only resistant equipment (e.g., polyethylene, teflon).
- 11. Emergency procedures in Appendix 5-A must be posted in all use areas. Calcium gluconate must be available in all use areas.
- 12. Prior to performing experiments using hydrofluoric acid, disposal procedures should be defined.
- 13. Spills should be neutralized with lime acid neutralizer or an appropriate equivalent, and the resulting solution collected for disposal as hazardous waste.

5.3 REACTIVE CHEMICALS

Reactive chemicals are chemicals that can, under certain conditions, release very large and potentially dangerous amounts of energy. This Section deals with the physical hazards of reactive chemicals. Reactive chemicals may also have health hazards that must also be considered. Reactive chemicals can lead to reactions that differ from the routine mainly in the rate at which they progress. A chemical reaction can be considered routine if the reaction rate is relatively slow or can be easily controlled. It is the rate of reaction and ability to control it that marks certain chemicals as warranting special precautions and the label "reactive chemical".

There are a variety of conditions under which certain chemicals undergo an uncontrollable hazardous reaction. Some chemicals are unstable and can vigorously polymerize, decompose, condense, or become self-reactive. Other chemicals can react violently when exposed to common environmental chemicals or conditions, such as water or air. Many chemicals are stable except when combined with certain other chemicals. These hazardous combinations are listed in the table "Classes of Incompatible Chemicals" in Section 6.3.1.

There are some additional hazardous conditions that are not usually attributed to "reactive chemicals" but should be mentioned. Extreme differences in physical properties can cause an uncontrollable release of energy. For example, bringing a hot liquid such as oil into contact with a liquid with a lower boiling point such as water will cause instantaneous vaporization of the lower boiling point liquid and a violent release of energy.

The following discussion highlights the most common groups of reactives and includes examples of chemicals in each group.

5.3.1 Examples of Reactive Chemicals

The following list of <u>examples</u> is compiled from several general references.¹ Manufacturer's Material Safety Data Sheets or the references cited should be consulted to determine the specific reactive characteristics of a particular chemical.

1. OXIDIZERS

Oxidizers are chemicals that can readily provide reactive oxygen readily under certain conditions. When in contact with organic materials, (e.g., wood. paper, organic chemicals), or other easily oxidizable chemicals, (e.g., metal powders), oxidizers can form unstable and explosive compounds sensitive to shock. Examples of oxidizers include:

- bromine and compounds
- chlorine and compounds
- chromium and dichromates
- chromium trioxide
- chromic acid
- fluorine
- iodine and compounds
- manganese dioxide
- nitrates
- nitric acid

- nitrites
- nitrogen trioxide
- permanganates
- peroxides
- persulfates
- phosphomolybdic acid
- picrates
- sodium bismuthate
- sulfuric acid

2. WATER EXPOSURE SENSITIVE

Water reactive chemicals can develop pressure, generate flammable, explosive, corrosive or toxic gases, or ignite or explode when exposed to water or moisture. Examples of water exposure sensitive chemicals include:

- alkali and alkaline-earth metals (sodium, lithium, calcium, potassium, magnesium)
- aluminum chloride
- anhydrous metal halides (aluminum tribromide, germanium tetrachloride)
- anhydrous metal oxides (calcium oxide)
- benzoyl chloride
- calcium carbide
- calcium oxide
- nonmetal halides (boron tribromide, phosphorous pentachloride)
- nonmetal halide oxides (inorganic acid halides, phosphoryl chloride, sulfuryl chloride, chlorosulfonic acid)
- nonmetal oxides (acid anhydrides, trioxides)

3. AIR EXPOSURE SENSITIVE

Air exposure sensitive chemicals can develop pressure, generate flammable or explosive gases, ignite or explode when exposed to air. Examples of air exposure sensitive chemicals include:

- alkyl metal derivatives (ethoxydiethylaluminum and dimethylbismuth chloride)
- analogous derivatives of nonmetals including diborane, dimethylphosphine, triethylarsine,
- dichloro(methyl)silane
- carbonyl metals (pentacarbonyliron and octacarbonyldicobalt)
- finely divided metals (calcium, titanium)
- metal hydrides (potassium hydride and germane)
- partially or fully alkylated metal hydrides (diethylaluminum hydride, triethylbismuth)
- sodium methoxide
- sec-butyl lithium
- triethylaluminum
- white phosphorus

4. <u>TEMPERATURE SENSITIVE</u>

Temperature sensitive chemicals may decompose when held above their maximum safe storage temperature resulting in pressure buildup, flammable or explosive gas generation, ignition, or explosion. Examples of temperature sensitive chemicals include:

- Certain oxidizers (perchlorates, chlorates, nitrates, bromates, chlorites, iodates)
- Certain Azo compounds
- Lithium nitrate
- Organic peroxides
- Phenylhydrazine hydrochloride

5. SPONTANEOUS DECOMPOSITION

Spontaneous Decomposition - chemicals which change structure over time and with no apparent stimulation can develop pressure, generate flammable or explosive gases, ignite or explode. Examples of chemicals which spontaneously decompose include:

- benzoyl peroxide (dry)
- nitroglycerine
- contaminated concentrated hydrogen peroxide

6. SHOCK, FRICTION AND STATIC DISCHARGE SENSITIVE

Shock, friction, and static discharge sensitive chemicals can violently decompose when initiated by shock, friction, or static discharge. Examples of these chemicals include:

- acetylides
- azides
- contaminated oxidizers
- diazo compounds
- explosives
- fulminates
- halamine

- nitro compounds
- nitroso compounds
- organic nitrates
- organic and inorganic peroxides
- ozonide
- picric acid (trinitrophenol)

7. PEROXIDES

Many common laboratory compounds can form peroxides when exposed to air over a period of time. A single opening of a container to remove some of the contents can introduce enough air for peroxide formation to occur. Peroxides are sensitive to heat, friction, impact, and light, and are among the most hazardous chemicals that are routinely encountered in laboratories. Their hazard potential is even greater because they may not be suspected or detected in commonly used solvents or reagents. Many explosions have occurred during distillation of peroxide-containing substances particularly when the distillation has been taken to or near to dryness.

Crystal formation or cloudy appearance inside a container is a possible sign of peroxide formation. Crystal formation is most likely (and most hazardous) around the cap. Friction caused just by turning the cap can cause an explosion that ignites flammable solvent in the container.

Peroxide formation can also occur in many polymerizable, unsaturated compounds. These peroxides can initiate a runaway, and sometimes explosive, polymerization reaction.

Structural groups of chemicals that can form peroxides, listed in approximate order of decreasing hazard, include:

Organic Structures:

- ethers and acetals with alpha hydrogen atoms
- olefins with allylic hydrogen atoms
- chloroolefins and fluoroolefins
- vinyl halides, esters, and ethers
- dienes
- vinylacetylenes with alpha hydrogen atoms
- alkylacetylenes with alpha hydrogen atoms
- alkylarenes that contain tertiary hydrogen atoms
- alkanes and cycloalkanes that contain tertiary hydrogen atoms
- acrylates and methacrylates
- secondary alcohols
- ketones that contain alpha hydrogen atoms
- aldehydes
- ureas, amides, and lactams that have a hydrogen atom on a carbon atom attached to nitrogen

Inorganic Substances:

- alkali metals, especially potassium, rubidium, and cesium
- metal amides
- organometallic compounds with a metal atom bonded to carbon
- metal alkoxides

5.3.2 General Safety Procedures for Working with Reactive Chemicals

- 1. Find out as much as possible about the reagents and procedures <u>before</u> the experiment.
- 2. Investigate the purity of the reactive chemical. Determine whether impurities or spontaneous decomposition products (such as peroxides) will make the experiment more hazardous.

- 3. Conduct small-scale preliminary experiments to assess the thermodynamic and physical properties of the reaction.
- 4. Use as little of the reactive chemical or as dilute a solution as possible.
- 5. Consider all methods of controlling reaction variables. The rate of addition can be controlled as well as the rate at which the energy of activation is supplied. Cool exothermic reactions adequately to control the reaction rate. Remember to provide cooling arrangements for both liquid and vapor stages if appropriate. Pressure relief valves should be include in pressurized systems and checked before adding chemicals to the system.
- 6. Determine the proper degree of agitation and mixing rate. Add oxidants slowly with appropriate cooling or mixing.
- 7. Use a face shield in addition to goggles when appropriate.
- 8. Work in a fume hood using the sash as a protective shield.
- 9. Have emergency equipment in the immediate area.
- 10. Notify people in the laboratory of any new or unique hazards that could potentially be created by use of a reactive chemical.

5.3.3 Special Procedures for Peroxide Forming Chemicals

It is important that information on the age of peroxide forming chemicals be maintained and that these chemicals are tested or disposed of on a regular basis.

5.3.3.1 Labeling Peroxide Formers

All peroxidizable compounds should be labeled with preprinted labels that read:

PEROXIDIZABLE COMPOUND May Become Explosive With Time or Exposure to Air or Light Date Opened: Discard Date:

The date and discard period should be filled-in the first time the container is opened, along with test dates and associated results.

5.3.3.2 Testing Peroxide Formers

The level of peroxides can be tested using peroxide test strips. Peroxidizable compounds must be tested for safety every 6 months and the bottled dated with the most recent test date. Do not use these materials if more than six months have passed since the most recent date indicated on the bottle. The Lab Manager should be made aware of any peroxide forming substances in Cole Science Center.

Table 5-2 lists recommendations for testing or disposal of potential peroxide forming chemicals.

| Table 5-2: |
|--------------------------------------|
| POTENTIAL PEROXIDE FORMING CHEMICALS |

A: Chemicals posing severe peroxide hazard on storage after exposure to air. DISCARD WITHIN 3 MONTHS

| Diisopropyl ether (isopropyl ether) [108-203] | potassium amide |
|---|---|
| divinylacetylene (DVA)* | sodium amide (sodamide) [7782-92-5] |
| potassium metal [7440-09-7] | vinylidene chloride (1,1-dichloroethylene)* [75-35-4] |

B: Chemicals posing peroxide hazard on concentration; do not distill or evaporate without first testing for the presence of peroxides. DISCARD OR TEST FOR PEROXIDES AFTER 6 MONTHS

| DISCARD OK TEST FOR TEROAIDES AFTER UNION THS | | | |
|--|---|--|--|
| acetaldehyde diethyl acetal (acetal) [75-07-0] | ethylene glycol dimethyl ether (glyme) [110-71-4] | | |
| cumene (isopropylbenzene) [98-82-8] | ethylene glycol ether acetates | | |
| cyclohexene [110-83-8] | ethylene glycol monoether (cellosolves) | | |
| cyclopentene [142-29-0] | furan [110-00-9] | | |
| decalin (decahydronaphthalene) [91-17-8] | methylacetylene [74-99-7] | | |
| diacetylene [106-99-0] | methylcyclopentane [96-37-7] | | |
| dicyclopentadiene [77-73-6] | methyl isobutyl ketone [108-10-1] | | |
| diethyl ether (ether, ethyl ether) [60-29-7] | tetrahydrofuran (THF) [109-99-9] | | |
| diethylene glycol dimethyl ether (diglyme) [11-96-6] | tetralin (tetrahydronaphthalene) [119-64-2] | | |
| dioxane [123-91-1] | vinyl ethers | | |

C: Chemicals posing a hazard of rapid polymerization initiated by internally formed peroxides.

Normal Liquids - **DISCARD OR TEST FOR PEROXIDES AFTER 6 MONTHS****

| chloroprene (2-chloro-1,3-butadiene)+ [126-99-8] | vinyl acetate [108-05-4] | | | |
|--|--------------------------|--|--|--|
| styrene [100-42-5] | vinylpyridine | | | |
| Normal Gases - DISCARD AFTER 12 MONTHS. | | | | |
| butadiene+ [106-14-3] | vinylacetylene (MVA)+ | | | |
| tetrafluoroethylene (TFE) [116-14-3] | vinyl chloride [75-10-4] | | | |

*Polymerizable monomers should be stored with a polymerization inhibitor from which the monomer can be separated by distillation just before use.

**Although common acrylic monomers such as acrylonitrile, acrylic acid, ethyl acrylate, and methyl methacrylate can form peroxides, they have not been reported to develop hazardous levels in normal use and storage.

+The hazard from peroxides in these compounds is substantially greater when they are stored in the liquid phase, and if stored without an inhibitor they should be considered as in group A.

5.4 COMPRESSED GASES

Compressed gas cylinders are defined by the U. S. Department of Transportation (DOT) as any materials or mixtures in containers having an absolute pressure in excess of 40 psi at 20° C (70° F) or in excess of 104 psi at 54.5°C (130° F).

Compressed gas cylinders should be considered high-energy sources regardless of the type of gas and all should be treated as potential explosives. Compressed gases have many properties that make them a unique hazard such as their pressure, diffusivity, low flash points for flammable gases, low boiling points, and, for some, no visual and/or odor warnings.

5.4.1 Cylinder Purchase, Labeling and Storage

Purchase

Gas cylinders and lecture bottles should be ordered through the Lab Manager. Lecture bottles (small cylinders of compressed gases or liquids) are leased in returnable cylinders whenever possible.

Labeling

Gas cylinders as received from the manufacturer are labeled with the product name, Department of Transportation hazard class, date of the last hydrostatic test, and identity of the manufacturer. If cylinders do not contain this information they should not be accepted. Cylinders should be inspected periodically to ensure that the product name is still legible.

Storage Area

- 1. Cylinders must be stored in designated storage areas away from ignition sources, corrosives, electrical supply sources and heat.
- 2. Store oxidizers away from flammable gases. Oxygen and fuel gases must be separated by a distance of at least 25 feet or by a firewall meeting the standards established by the Compressed Gas Association's CGA P-1. As an alternative, oxygen can be moved directly to the area of use.
- 3. The valve protection cap must be kept on at all times, except when a cylinder is in use.
- 4. Cylinders must be chained or strapped, or otherwise mounted, securely in place to prevent them from falling over. Cylinders must be individually mounted or strapped.
- 5. Corrosive gases should be stored for the shortest possible time period: under three months is preferable.
- 6. Cylinders may not be stored in areas not protected from the weather.

7. Cylinders must be clearly labeled with the contents, by the vendor's identification label. If labels are coming off, notify the Lab Manager immediately. Unlabeled cylinders cannot be returned to the vendor.

5.4.2 Moving Cylinders

- 1. Faculty or staff will move all large cylinders from the storage area to the laboratory.
- 2. Always consider cylinders full and handle them accordingly; the same hazards exist even if the cylinder is only partially full.
- 3. Use a hand truck to transport cylinders that cannot be easily carried. Do not drag, roll, or slide cylinders. Cylinders must be secured to the hand truck.
- 4. The valve protection cap should remain on until the cylinder has been secured in its final position and is ready for use.
- 5. Never drop a cylinder or permit cylinders to strike each other.
- 6. Protect cylinders from any object that will produce a cut or abrasion in the surface of the metal.
- 7. Mount cylinders so that the valve is easily accessible and the label is readable.
- 8. Always chain or strap cylinders immediately. Do not leave a cylinder in a laboratory if equipment is not available to secure it. Cylinders in the laboratory must be secured individually.

5.4.3 Laboratory Use

- 1. Handling and use of gas cylinders and lecture bottles (e.g., attaching regulators) must comply with manufacturers' recommendations.
- 2. Do not use flammable gases near exit paths.
- 3. Wear safety glasses or goggles when installing or removing regulators on gas cylinders.
- 4. Attach the proper regulator designed for the particular gas that is being used. Cylinder valves have been standardized for specific families of gases to prevent the interchange of regulator equipment between gases that are not compatible. Never modify, tamper with or force a cylinder valve or regulator. Be sure that all components of a distribution system are compatible with the gas in use. Corrosive gases require special attention to the resistance of materials in the distribution system.
- 5. After connecting the regulator, secure all hose connections with clamps, secure any loose hoses to prevent sudden movement when pressure is supplied, and, when

appropriate, place a trap between the regulator and the reaction vessel to prevent backflow.

- 6. Verify that the regulator is securely in place after installation or changing it by checking for leaks.
- 7. Start the gas flow with the following procedure.
 - a. Do not stand in front of the delivery valve.
 - b. With the regulator secured to the cylinder valve outlet, turn the delivery pressure adjusting the screw until it turns freely.
 - c. Next slowly open the cylinder valve until the cylinder pressure gauge on the regulator reads the cylinder pressure. The cylinder valve should be opened by hand; never use a wrench or other tool unless the vendor supplies a special tool for that purpose.
 - d. With the cylinder valve open and the flow control valve (the outlet from the regulator) in closed position, set the desired delivery pressure by turning the delivery-pressure adjusting screw (clockwise increases) until the desired pressure is reached.
 - e. Begin gas flow by opening the flow control valve at the outlet of the regulator.
- 8. All gas lines leading from a compressed gas supply should be clearly labeled. Signs should be conspicuously posted in areas in which flammable compressed gases are present.
- 9. Never mix gases in a cylinder; unless the cylinder is designed for that purpose and labeled appropriately.
- 10. Never completely empty a cylinder. Leave a slight pressure (about 25 pounds) to keep out contaminates that may react with the contents or corrode the cylinder.

Empty cylinders should have the regulator removed and the protector cap in place, the cylinder should be labeled EMPTY or "MT", and the Lab Manager notified.

5.4.4 Special Precautions

Acetylene

1. Gaseous acetylene under pressure may also decompose with explosive force and should not be used at pressures in excess of 15 psig (30 psi absolute pressure). Acetylene pressure gauges should have a warning red line at this point.

- 2. Acetylene in cylinders is dissolved in a liquid (e.g., acetone) and should always be used in an upright position. Do not use a cylinder that has been stored or handled in a non-upright position until it has remained in an upright position for at least 30 minutes.
- 3. The outlet line of an acetylene cylinder must have a flash arrester.
- 4. Use the correct kind of tubing to transport the gaseous acetylene. Some tubing materials, such as copper, form explosive acetylides.

Oxidizers

Oxidizers under pressure (oxygen, chlorine, etc.) will rapidly oxidize organic material, such as oil or grease, resulting in an explosion. Never use oil or grease on valves or gauges intended for cylinders containing oxidizers.

5.5 CRYOGENIC SYSTEMS

Cryogenics is the science of very low temperatures. An accepted temperature used to distinguish between refrigeration and cryogenics is -73.3° C (-100° F). Low temperatures in the cryogenic range are generally obtained by the liquidification or solidification of gases. The most commonly used cryogens and their properties are listed in Table 5-3.

The primary hazard of cryogenic materials is their extreme coldness that can result in frostbite and severe tissue damage. Accumulated vapors may also act as asphyxiants. Liquefied inert gases, such as nitrogen, in contact with cold metal surfaces can cause condensation of oxygen from the room air resulting in an oxygen-enriched atmosphere and, consequently, an increased fire hazard. The low temperatures involved also affect the properties of other materials, for example, rubber may become brittle and disintegrate, some metal alloys may become brittle, and plastic and glass can shatter.

| Table 5-3 PROPERTIES OF CRYOGENS | | | | | |
|------------------------------------|------------|-----------|------------------|--------------|------------------|
| | Normal | Volume | | | |
| | Boiling | Expansion | | | |
| Gas | Point (°C) | to Gas | <u>Flammable</u> | <u>Toxic</u> | <u>Odor</u> |
| carbon dioxide | -78.5 | 553:1 | No | Yes S | Slightly Pungent |
| hydrogen | -252.7 | 861:1 | Yes | No | No |
| nitrogen | -195.8 | 696:1 | No | No | No |
| helium-3 isotope | -269.9 | 757:1 | No | No | No |
| argon | -185.7 | 847:1 | No | No | No |
| fluorine | -187.0 | 888:1 | No | Yes | Sharp |
| oxygen | -183.0 | 860:1 | No | No | No |
| methane | -161.4 | 578:1 | Yes | No | No |

Cryogens have very high liquid:vapor expansion ratios. For example, liquid nitrogen expands to approximately 700 times its initial volume when it vaporizes (e.g., 22 cf expands to 15,400 cf). This rapid expansion can cause a displacement of oxygen and, consequently, a life threatening asphyxiant atmosphere.

5.5.1 Storage and Handling Precautions for Cryogens

These are general precautions, the faculty or supervising staff member responsible for the cryogenic operation should establish more specific safety guidelines.

- 1. Store and use only in containers and equipment recommended for cryogenic service.
- 2. Avoid confined areas where vaporization occurs, (e.g., do not put your head down into the dry ice freezer).
- 3. Ensure that all apparatus is properly vented to prevent accumulation of pressure and be cognizant of ice blocks that could block vent lines.
- 4. Wear chemical splash goggles when there is a risk of pressure buildup or splash or particle hazard. Wear a face shield in cases where there is a high likelihood of contact.
- 5. Always wear long sleeves and/or a lab coat.
- 6. Watches, rings or other jewelry that could trap the material next to the skin should not be worn.

- 7. If gloves are necessary to handle containers or cold metal parts, they should be impervious and loose enough to be thrown off in the case of contamination.
- 8. Neither liquid nitrogen, liquid air, nor any other cryogen with a normal boiling point <188 °C should be used to cool a flammable mixture in the presence of air, as oxygen can condense from the air leading to an explosive mixture.
- 9. Equipment must be kept clean to avoid contamination of organics with a cryogenic oxidant (e.g., liquid oxygen) or oxidants with a cryogenic fuel (e.g., liquefied natural gas).
- 10. When flammable gases are being used, eliminate potential ignition sources.
- 11. Flammable and toxic gases should only be used in a fume hood.
- 12. If liquid nitrogen has a blue tint, it has been contaminated with oxygen and should be replaced. The contaminated material is dangerous and potentially explosive.
- 13. When spilled, liquid oxygen soaks into materials it comes into contact with, and the resulting mixture may be explosive.

5.6 ACUTE TOXINS

As defined by the Laboratory Standard, acute toxins, one of OSHA's three categories of Particularly Hazardous Substances¹, are chemicals which may be fatal as a result of a single exposure or exposure of short duration. The OSHA Hazard Communication Standard² defines a similar category, highly toxic chemicals, based on animal (rat) toxicity data using the following criteria.

 $\begin{array}{l} LD_{50} \text{ - ingestion: } \leq 50 \text{ mg/kg} \\ LD_{50} \text{ - contact (24hrs): } \leq 200 \text{ mg/kg} \\ LD_{50} \text{ - inhalation: } \leq 200 \text{ppm/hr} \end{array}$

 LD_{50} , also known as LC_{50} , is defined as the amount of chemical which when ingested, inhaled or applied to the skin of a group of test animals under controlled conditions will kill 50% of the test animals.

However, a review of Material Safety Data Sheets reveals that these toxicity data are not readily available for many laboratory chemicals. As there is no definitive list of acute toxins, they will be defined here as a chemical which meets one or more of the following three criteria.

¹ The OSHA Laboratory Standard, 29 CFR 1910.1450, defines three categories of Particularly Hazardous Substances: Acute Toxins, Select Carcinogens, and Reproductive Toxins.

² OSHA Hazard Communication Standard, 29 CFR 1910.1200.

1. Animal toxicity data is available and meets the LD_{50} criteria listed above.

2. The container label or Material Safety Data Sheet identifies the substance as "acutely toxic", "highly toxic", "may be fatal if inhaled", "may be fatal if enters the bloodstream", or similar warning of acute toxicity.

3. It is on the following list of **examples** (Table 5-4) which was compiled from several sources as referenced and includes all Department of Transportation Poison A chemicals, and chemicals with a National Fire Protection Association "Health" rating of 4 for highly toxic. (See Appendix 4-B for a description of NFPA ratings.)

4. The faculty member has knowledge that the chemical is an acute toxin.

5.6.1 Written Protocols

Each faculty member using or supervising the use of an acute toxin must develop a written protocol for that chemical. The protocol must include a description of the quantity to be used, experimental procedure, the location of the experiment, who will be handling the acute toxin, protective equipment to be worn, emergency procedures, and waste disposal procedures. The protocol must be submitted to the Chair of the Safety Committee, at least 3 weeks prior to the anticipated purchase date (or use date for materials already in CSC), for approval by the Safety Committee. If an acute toxin is to be stored after completion of its approved usage, it should be given to the Lab Manager for proper storage.

| Chemical | Target Organ | <u>Chemical</u> | Target Organ |
|---------------------------------------|---------------------|--------------------------|---------------------|
| abamectrin * | systemic | methylaziridine, 2- * | systemic |
| acrolein * | systemic,pulmonary | methyldichloroarsine | systemic |
| acrylonitrile * | systemic | methylfluorosulfonate | systemic |
| adiponitrile | systemic,blood | methyl hydrazine * | pulmonary,CNS,blood |
| aminopyridine, 4- * | systemic | methyl isocyanate * | systemic |
| ammonia (gas) | pulmonary | methyl mercury cmpds * | CNS |
| aniline and cmpds * | blood | mitomycin C | systemic |
| arsenic acid and salts * | systemic | mustard gas * | pulmonary |
| arsenic pentafluoride | systemic | nickel carbonyl | pulmonary,CNS |
| arsenic pentoxide | systemic | nicotine * | CNS |
| arsenic trichloride | systemic | nitric acid, fuming * | pulmonary,skin |
| arsenic trioxide | systemic | nitric oxide | systemic |
| arsenious acid and salts | systemic | nitrogen dioxide | systemic |
| arsine | systemic | nitrogen mustard * | systemic |
| arsonic acid and salts | systemic | nitrogen mustard | systemic |
| atropine * | CNS | hydrochloride * | |
| bischloroethylnitrosourea | systemic | nitrogen tetroxide | systemic |
| boron tribromide | pulmonary | nitrosomethylvinylamine | systemic |
| boron trifluoride | pulmonary | ochratoxin A | systemic |
| bromine | pulmonary,skin | osmium tetroxide | systemic |
| bromine pentafluoride | pulmonary | ozone | pulmonary |
| bromoacetone | pulmonary | parathion * | CNS |
| chlorine | pulmonary | pentaborane | CNS |
| chlorine trifluoride | pulmonary | pentachlorophenol * | systemic |
| chloropicrin | pulmonary | phosgene | pulmonary |
| colchicine | pulmonary, systemic | phosphine | systemic |
| cyanamide * | systemic | phosphorus (yellow) | pulmonary |
| cyanides and cmpds * | blood | propargyl bromide | systemic |
| cyanogen and cmpds | blood | propionic nitrile * | systemic |
| decaborane * | CNS | propylene oxide * | pulmonary |
| diazomethane | pulmonary | selenium hexafluoride | pulmonary |
| diborane | pulmonary | sodium azide * (1) | systemic |
| dichloroacetylene | pulmonary | sodium fluoroacetate* | systemic |
| diclorvos * | systemic | stibine | systemic.blood |
| digitoxin * | systemic | strychnine | systemic.CNS |
| dimethyl mercury * | CNS. systemic | TCCD * | systemic |
| dimethyl sulfate * | pulmonary.skin.eves | tetraethyl lead * | CNS |
| dinitrophenol. 2.4-* | systemic | tetraethylpyrophosphate* | systemic |
| endosulfan * | CNS | tetramethyl | CNS |
| endrin * | CNS | succinonitrile * | |
| ethylene chlorohydrin * | systemic | thiophenol * | CNS systemic |
| fluorine | pulmonary skin | thio-ten | systemic |
| germane | pulmonary blood | o-toluidine * | blood |
| hentachlor * | systemic | tubocurarine chloride | systemic |
| heptachlor enovide * | systemic | hydrate * | systemie |
| hydrogen cyanide * | systemic | vanadium pentovide | systemic |
| hydrogen Cyande hydrogen fluoride* | pulm skin systemic | vanadium pentoxide | systemic |
| hydrogen selenide * | pulmonary | adamataus | systemic |
| hydrogen sulfide | systemic | vanon enaka arotalua | evetamic |
| methyl bromide * | pulmonary | atrov | systemic |
| mongonoso tricorhony ¹ | CNS | autox vulidina * | blood |
| manganese u icarbonyi | UND 1 * | * readily abcorbed three | ugh the skin |
| memyreyelopentauleny | 1 | reauny absorbed thro | ugn the skill |

Table: 5-4 EXAMPLES OF ACUTE TOXINS⁽¹⁾

(1) Requirements of this Section do not apply to chemicals in which sodium azide is used in small amounts as a preservative. Sodium azide and solutions containing sodium azide should not be put into the sewer system. They should be collected as hazardous waste.

5.6.2 Employee/Student Notification and Use

The supervising faculty member is responsible for informing all employees or students that the chemical they are working with is an acute toxin and providing them with a copy of the written protocol. These materials should be used <u>only</u> under direct supervision and in the approved designated area.

5.6.3 Personal Protective Equipment

Protective Clothing

Laboratory coats must be worn when acute toxins are being used. Laboratory coats used for this purpose must not be worn outside of the laboratory. Contaminated clothing must be removed immediately, placed in a sealed plastic bag, and given to the Lab Manager for proper disposal.

If hand contact is possible, gloves appropriate for the task and with resistance to the acute toxin involved must be worn. Disposable gloves must be collected for proper disposal after every use, and immediately after known or suspected contact with an acute toxin. Non-disposable gloves must be designated for use only with the acute toxin and must be decontaminated or disposed of after every use.

Eye Protection

Appropriate eye protection must be worn as described in Section 4.5.1. Splash goggles are required when using any quantity of an acute toxin in liquid or powder form.

5.6.4 Personal Hygiene

Hands must be washed with soap and water immediately after known or suspected contact, at the completion of any procedure, and prior to leaving the laboratory. If eyes or other parts of the body are contaminated, they must be immediately washed or flushed as described in Section 2.3.1.

5.6.5 Work Area Identification and Access

Each designated work area where acute toxins are being used must be clearly labeled with a sign with the following or similar warning:

CAUTION

DESIGNATED WORK AREA SELECT CARCINOGENS, REPRODUCTIVE HAZARDS, OR SUBSTANCES OF HIGH ACUTE TOXICITY MAY BE PRESENT. AUTHORIZED USERS ONLY

5.6.6 Handling and Storage Procedures

Work Surfaces

All work surfaces on which acute toxins are used should be a smooth nonporous material or covered with stainless steel or plastic trays. The work surface or trays must be decontaminated after the procedure is complete.

Containment Equipment

Procedures using volatile acute toxins and those involving solid or liquid acute toxins that may result in the generation of aerosols or airborne particles should be conducted in a fume hood, glove box, or other containment device. Examples of aerosol generation procedures include: transfer operations, blending, and open vessel centrifugation.

Vacuum Lines

Vacuum lines should be protected (e.g., with an absorbent or liquid trap or filter) to prevent entry of any acute toxin into the system.

Decontamination

Equipment and contaminated materials should be decontaminated using procedures that deactivate the acute toxin, if such procedures are available. If deactivation procedures are not available, the equipment should be rinsed in an appropriate solvent and the solvent collected as hazardous waste. All glassware must be decontaminated or rinsed before it is sent for washing. Decontamination of the work area must be done whenever there has been known or suspected contamination and at the end of each experiment. The work area should be decontaminated daily.

Container Labeling

All non-original containers in which acute toxins are stored must be labeled with the chemical name, student and faculty name, date, and a warning indicating it is a acute toxin. Do not use abbreviations.

5.6.7 Waste Disposal

Collection for Off-Site Disposal

All contaminated materials must be collected for off-site disposal. The procedures outlined in Section 6.5 for hazardous waste disposal should be followed.

5.7 REPRODUCTIVE TOXINS

Reproductive toxins, one of OSHA's three categories of Particularly Hazardous Substances, are substances that affect reproductive capability and include four general categories.

- **Mutagens** substances that may cause a change (mutation) in the genetic material of a cell.
- **Teratogens** substances that may affect the viability or cause physical or metabolic defects in the developing embryo or fetus when a pregnant female is exposed to that substance.
- Sterility/Infertility substances that may affect female or male fertility.
- **Lactation** substances that may be transferred from the mother to the child through breast milk and cause adverse health effects in the child.

Reproductive toxins include physical agents (e.g. radiation), biological agents (e.g. viruses), maternal metabolic imbalances, and chemical agents. This section will focus on chemical reproductive toxins. There are numerous references on reproductive toxicology but, unfortunately, no scientific or government agency has established a definitive method for classifying potential human chemical reproductive toxins as they have done for carcinogens. It is, therefore, impossible to give a complete list of all chemicals that should be considered reproductive toxins. Appendix 5-D gives examples of chemicals known or suspected to be human reproductive toxins. The list does not take into account the chemical form, concentration, toxicity, or length of exposure.

A large number of chemicals have been reported to be animal reproductive toxins in various species, but since there is no established method for defining when animal evidence is sufficient to relate to human reproductive toxicity potential, it cannot be meaningfully organized here. Container labels and Material Safety Data Sheets should be consulted for the manufacturer's assessment of animal reproductive toxicity, and precautions should be taken to minimize exposure to those chemicals particularly during pregnancy or childbearing years.

As there is no definitive list of human reproductive toxins, they will be defined here as a chemical which meets one of the following criteria.

- 1. It is listed on Appendix 5-D as an "Example of Known or Suspected Human Reproductive Toxin".
- 2. The container label or Material Safety Data Sheet reports positive findings of human reproductive toxicity.
- 3. The faculty member has knowledge that the chemical is a human reproductive toxin.

5.7.1 Notification of Use and Protocols

Each faculty member using or supervising the use of any human reproductive toxin must notify the Lab Manager using the form included in Appendix 5-B. Review procedures are

detailed in the introduction to Section 5. If the toxin is to be stored after completion of its approved used, it should be given to the Lab Manager for proper storage.

Upon request, the Safety Committee will evaluate specific experimental procedures to determine if additional handling requirements are advisable or if certain requirements of this Section may be waived. The Committee may also request protocols for use of reproductive toxins.

5.7.2 Employee/Student Notification

The supervising faculty member is responsible for informing all employees and students that the chemical they are working with is considered a human reproductive toxin.

5.7.3 Personal Protective Equipment

Protective Clothing

Laboratory coats must be worn when greater than 10 milliliter or 10 milligrams of a human reproductive toxin is being used. Laboratory coats used for this purpose must not be worn outside of the laboratory. Contaminated clothing must be removed immediately, sealed in a plastic bag and given to the Lab Manager for proper disposal.

If hand contact is possible, gloves appropriate for the task and with resistance to the reproductive toxin involved must be worn. Disposable gloves must be properly discarded after every use and immediately after known or suspected contact with a human reproductive toxin. Non-disposable gloves must designated for use only with the human reproductive toxin and must be decontaminated or discarded after every use.

Eye Protection

Appropriate eye protection must be worn as described in 4.5.1.

5.7.4 Personal Hygiene

Hands must be washed with soap and water immediately after known or suspected contact, at the completion of any procedure, and prior to leaving the laboratory. If other parts of the body are contaminated they must be immediately washed or flushed, in the case of eye contamination, described in Section 2.3.1.

5.7.5 Work Area Identification and Access

Designated work areas where human reproductive toxins are being used must be clearly labeled with a sign with the following, or similar, warning:

CAUTION DESIGNATED WORK AREA SELECT CARCINOGENS, REPRODUCTIVE HAZARDS, OR SUBSTANCES OF HIGH ACUTE TOXICITY MAY BE PRESENT. AUTHORIZED USERS ONLY.

5.7.6 Handling and Storage Procedures

Work Surfaces

All work surfaces on which human reproductive toxins are used should be smooth and nonporous or covered with stainless steel or plastic trays. The work surface or trays should be decontaminated after the procedure is complete.

Containment Equipment

Procedures using volatile human reproductive toxins and those involving solid or liquid human reproductive toxins that may result in the generation of aerosols or airborne particles should be conducted in a fume hood, glove box or other containment device. Examples of aerosol generation procedures include: transfer operations, blending, and open vessel centrifugation.

Vacuum Lines

Vacuum lines should be protected (e.g. with an absorbent or liquid trap or filter) to prevent entry of any human reproductive toxin into the system.

Decontamination

Equipment and contaminated materials should be decontaminated by procedures that deactivate the human reproductive toxin if such procedures are available. If deactivation procedures are not available, the equipment should be rinsed with an appropriate solvent and the solvent collected as hazardous waste. All glassware must be decontaminated and rinsed before it is sent for washing. Decontamination of the work area must be done whenever there has been known or suspected contamination and at the end of each experiment. The work area must be decontaminated daily.

Container Labeling

All non-original containers in which a human reproductive toxin is stored must be labeled with the chemical name, student and faculty name, date, and a warning indicating it is a reproductive toxin.

5.7.7 Waste Disposal

Waste Minimization

One goal of experimental design should be the minimization of waste produced. Using the least amount of the reproductive toxin possible and limiting the use of disposable equipment are effective methods.

Deactivation

When possible, wastes should be deactivated to form non-toxic degradation products. Deactivation procedures for some human reproductive toxins which are also carcinogens may be available from the manufacturer.

Collection for Off-Site Disposal

If deactivation methods are not available or the deactivation product remains hazardous (e.g., flammable) all contaminated materials must be collected for off-site disposal. The procedures outlined in Section 6.5 for Hazardous Waste Disposal should be followed.

5.8 SELECT CARCINOGENS

These guidelines for the laboratory use of chemical carcinogens establish procedures and safeguards for minimizing exposure of laboratory personnel to chemicals that pose a carcinogenic risk. They apply to all chemicals defined as "select carcinogens", one of OSHA's three categories of Particularly Hazardous Substances,³ which include:

- all OSHA regulated carcinogens (29 CFR Subpart Z),
- all substances the National Toxicology Program (NTP) lists as "known to be carcinogens", or "reasonably anticipated to be carcinogens",
- all substances that the International Agency for Research on Cancer (IARC) defines as Group 1,"carcinogenic to humans", or as Group 2A, "probably carcinogenic to humans" or Group 2B, "possibly carcinogenic to humans".

Appendix 5-E is a compilation of lists from the sources referenced above. It is taken directly from those sources and does not take into account relative hazards attributable to chemical form, concentration, toxicity, or length of exposure. These guidelines are adapted from the National Institute of Health 1981 "*NIH Guidelines for the Laboratory Use of Chemical Carcinogens*".

³ The OSHA Laboratory Standard defines three categories of Particularly Hazardous Substances: Acute Toxins, Select Carcinogens, and Reproductive Toxins.

5.8.1 Notification of Use and Protocols

Each faculty member using or supervising the use of any select carcinogen must notify the Lab Manager using the form included in Appendix 5-B. Review procedures are detailed in the introduction to Section 5. If the toxin is to be stored after completion of its approved used, it should be given to the Lab Manager for proper storage.

Upon request, the Safety Committee will evaluate specific experimental procedures to determine if additional handling requirements are advisable or if certain requirements of this Section may be waived. The Committee may also request protocols for use of select carcinogens.

5.8.2 Employee/Student Notification

The supervising faculty member is responsible for informing all employees and students that the chemical they are working with is a select carcinogen.

5.8.3 Personal Protective Equipment

Protective Clothing

Laboratory coats must be worn when greater than 10 milliliters or 10 milligrams of a select carcinogen is being used. Laboratory coats used for this purpose must not be worn outside of the laboratory. Contaminated clothing must be removed immediately, sealed in a plastic bag and given to the Lab Manager for proper disposal.

If hand contact is possible, gloves appropriate for the task and with resistance to the carcinogen involved must be worn. Disposable gloves must be properly discarded after every use and immediately after known or suspected contact with a select carcinogen. Non-disposable gloves must be designated for use only with select carcinogens and must be decontaminated after every use.

Eye Protection

Appropriate eye protection must be worn as described in 4.5.1.

5.8.4 Personal Hygiene

Hands must be washed with soap and water immediately after known or suspected contact, at the completion of any procedure, and prior to leaving the laboratory. If other parts of the body are contaminated they must be immediately washed or flushed, in the case of eye contamination, described in Section 2.3.1.

5.8.5 Work Area Identification and Access

Designated work areas where select carcinogens are being used must be labeled with a sign with the following warning:

CAUTION DESIGNATED WORK AREA SELECT CARCINOGENS, REPRODUCTIVE HAZARDS, OR SUBSTANCES OF HIGH ACUTE TOXICITY MAY BE PRESENT. AUTHORIZED USERS ONLY.

5.8.6 Handling and Storage Procedures

Work Surfaces

All work surfaces on which select carcinogens are used should be smooth and nonporous or covered with stainless steel or plastic trays. The work surface or trays should be decontaminated after the procedure is complete.

Containment Equipment

Procedures using volatile select carcinogens and those involving solid or liquid select carcinogens that may result in the generation of aerosols or airborne particles should be conducted in a fume hood, glove box or other containment device. Examples of aerosol generation procedures include: transfer operations, blending, and open vessel centrifugation.

Vacuum Lines

Vacuum lines should be protected (e.g. with an absorbent or liquid trap or filter) to prevent entry of any human reproductive toxin into the system.

Decontamination

Equipment and contaminated materials should be decontaminated by procedures that deactivate the select carcinogen if such procedures are available.

If deactivation procedures are not available, the equipment should be rinsed with an appropriate solvent and the solvent collected as hazardous waste. All glassware must be decontaminated or rinsed before it is sent for washing. Decontamination of the work area must be done whenever there has been known or suspected contamination and at the end of each experiment. The work area should be decontaminated daily.

Container Labeling

All non-original containers in which a select carcinogen is stored must be labeled with the chemical name, student and faculty name, date, and a warning indicating it is a select carcinogen.

5.8.7 Waste Disposal

Waste Minimization

One goal of experimental design should be the minimization of waste produced. Using the least amount of the select carcinogen possible and limiting the use of disposable equipment are effective methods.

Deactivation

When possible, wastes should be deactivated to form non-toxic degradation products. Deactivation procedures may be available from the manufacturer.

Collection for Off-Site Disposal

If deactivation methods are not available or the deactivation product remains hazardous (e.g., flammable) all contaminated materials must be collected for off-site disposal. The procedures outlined in Section 6.5 for Hazardous Waste Disposal should be followed.

5.8.8 Special Requirements for Formaldehyde

OSHA has established a separate Standard for formaldehyde, 29 CFR 1910.1048, which applies to laboratories as well as other users of formaldehyde. Under that Standard employee exposure monitoring is required to determine if a particular experiment may result in overexposure to formaldehyde. To accomplish the required monitoring, faculty members must notify the Lab Manager before any experiment where formaldehyde is used in concentrations greater than 1 percent (reagent concentration or final solution concentration), using the form in Appendix 5-B.

If previous monitoring has been conducted for that experiment and acceptable levels consistently achieved, notification is not required unless the Lab Manager has informed the faculty member that additional monitoring is required. Additional requirements of the Standard may apply based on the results of monitoring. These requirements will be discussed with individual faculty as needed.

The Formaldehyde Standard also established hazard communication requirements (labeling, MSDS, and training) which apply to the use of solutions containing greater than 0.1 percent or capable of releasing formaldehyde in excess of 0.1 ppm.

Labeling

For products capable of releasing 0.1 to 0.5 ppm, labels must include a warning that the product contains formaldehyde and that more information is available on the MSDS. For products capable of releasing greater than 0.5 ppm, the label must also address health hazards and include the words "Potential Cancer Hazard". Products must be labeled with the appropriate warning.

<u>MSDS</u>

Material Safety Data Sheets must be readily accessible for all formaldehyde-containing products.

<u>Training</u>

Annual training is required for the users of formaldehyde product containing greater than 0.1 percent formaldehyde or capable of releasing in excess of 0.1 ppm. That training will be accomplished by distribution by the faculty member of the Formaldehyde Fact Sheet (Appendix 5-C) to all users of formaldehyde products.

5.9 SUMMARY OF PARTICULARLY HAZARDOUS SUBSTANCES

The OSHA Laboratory Standard classifies Acute Toxins (5.6), Select Carcinogens (5.8), and Reproductive Toxins (5.7) as Particularly Hazardous Substances. Each of those sections contains lists of chemicals that meet the criteria defining those three hazard categories. Appendix 5-F is a compilation of those lists. Please remember that the acute toxins and reproductive toxins lists are only examples and that other chemicals not listed can meet the definitions for those hazards. This list is taken directly from the sources referenced in those sections and does not take into account relative hazards attributable to chemical form, concentration, toxicity, or length of exposure.

APPENDIX 5-A

Cole Science Center First Aid Treatment for Hydrofluoric Acid Exposure

For all exposures have someone **call Campus Police immediately** and inform them that someone has been exposed to HF and needs to be taken **to the emergency room for treatment**. An ambulance should be called for transportation in the case of, inhalation or ingestion, skin contact with concentrated acid, or skin contact with dilute acid in excess of 20 square inches. Smaller areas of skin contact with dilute acid do not require an emergency if calcium gluconate gel is being used and transportation to the emergency room can be provided by Campus Police.

Skin Burns

Flush with cool water for at least 5 minutes.

Apply 2.5% Calcium Gluconate gel as soon as rinsing is stopped. Massage gel into burn site continuously until medical treatment is received.

Eye Contact

Flush eyes for at least 15 minutes, holding eyelids open to allow flushing of the eyes. Ice water compresses should be applied to the eyes during transport to the emergency room.

Inhalation

Remove to fresh air. Oxygen should be administered by ambulance personnel during transport to the emergency room.

Ingestion

Drink large amounts of water immediately. Do not induce vomiting. If available, milk, maalox or mylanta may be given during transport to the emergency room.

If possible take the publication "Recommended Medical Treatment for Hydrofluoric Acid Exposure" and the concentration of the acid involved to the emergency room with you.

APPENDIX 5-B

| Cole Science Center |
|--|
| NOTIFICATION OF USE OF PARTICULARLY HAZARDOUS SUBSTANCES |

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| HAZARD CATEGORY | SELECT CARCINOGEN | | | | |
|--|------------------------------|----------------|--|--|--|
| | | | | | |
| | HOMAN REPRODUCTIVE TOXIN | | | | |
| CHEMICAL NAME: | | | | | |
| CAS #: (if known) | | | | | |
| USED IN : | RESEARCH – List Faculty Name | | | | |
| | STUDENT LABORATORIES | | | | |
| | Course Responsible Faculty | | | | |
| | | _ | | | |
| AREA OF USE: | | | | | |
| STORAGE AREA: | | | | | |
| USED ONLY IN FUME HOOD:YESNO | | | | | |
| APPROXIMATE QUANTITY USED: PER EXPERIMENT | | | | | |
| | PER WEEK | | | | |
| | | | | | |
| Requirements for the use of Select Carcinogens and Reproductive Toxins are described in those sections of the Safety Manual. The Safety Committee may request a written protocol or other additional information upon review of this Notification. | | | | | |
| Signature | | | | | |
| Date: | Return | to Lab Manager | | | |

APPENDIX 5-C

FORMALDEHYDE FACT SHEET

The Occupational Health and Safety Administration (OSHA) has established a chemical specific standard to protect employees from overexposure to formaldehyde in the workplace. This document provides information on the potential health effects of formaldehyde exposure and on the requirements of the OSHA Formaldehyde Standard, 29 CFR 1910.1048, as they apply to the College. This information is provided to both employees and students who may be exposed to formaldehyde in the laboratory to increase awareness of the hazards of formaldehyde overexposure and of appropriate precautions to avoid overexposure. The precise hazards associated with exposure to formaldehyde depend both on the form (solid, liquid, or gas) of the material and the concentration of formaldehyde. For example, 37-50 percent solutions of formaldehyde present a much greater hazard to the skin and eyes from spills or splashes than solutions containing less than one percent formaldehyde.

Chemical Name: Formaldehyde Chemical Family: Aldehyde Chemical Formula: HCHO Molecular Weight: 30.03 Chemical Abstract Service Number (CAS#): 50-00-0

Synonyms: formalin (37% solution), formic aldehyde, paraform, methyl aldehyde, methylene glycol, methylene oxide, tetraoxymethalene, oxomethane, oxymethylene

Description: as a gas, strong pungent odor, vapor density 1.067 (air=1), soluble in water and alcohol

Description: as a solution (37%), colorless liquid, pungent odor, specific gravity 1.08 (H₂O=1), vapor density 1.04 (air=1), odor threshold 0.8-1 ppm

Fire and Explosion Hazard: as a solution (37%), flash point 185°F, lower explosion limit 7%, upper explosion limit 73%; auto ignition temperature 806°F; aqueous solutions often contain methanol as an inhibitor increasing the fire hazard

Extinguishing media: use dry chemical, carbon dioxide or water

Reactivity: Formaldehyde solutions may selfpolymerize to form para-formaldehyde *Incompatible Materials*: strong oxidizing agents (violent reaction), caustics, strong alkalies, isocyanates, anhydrides, oxides and inorganic acids; reacts with hydrochloric acid to form the potent carcinogen, bis-chloromethyl ether; reacts with nitrogen dioxide, nitromethane, perchloric acid, and aniline, or peroxyformic acid to yield explosive compounds

Health Hazard Data

Permissible Exposure Limits: 8-hr time weighted average: 0.75 ppm 15-min time weighted average: 2.0 ppm

Acute Effects of Exposure: Ingestion of liquids containing 10 to 40% causes severe irritation and inflammation of the mouth, throat, and stomach.

Severe stomach pains will follow ingestion with possible loss of consciousness and death. Ingestion of dilute solution (0.03-0.04%) may cause discomfort in the stomach and pharynx. Inhalation of concentrations of 0.5 to 2.0 ppm may irritate the eyes, nose, and throat of some individuals. Concentrations of 3 to 5 ppm also cause tearing of the eyes and are intolerable to some individuals. Concentration of 10 to 20 ppm cause difficulty in breathing, burning of the nose and throat, cough, and heavy tearing of the eyes, and 25 to 30 ppm causes severe respiratory tract injury leading to pulmonary edema and pneumonitis. A concentration of 100 ppm is immediately dangerous to life and health. Skin contact causes irritation and may cause white discoloration, smarting, drying, cracking, and scaling. Prolonged and repeated contact can cause numbness and a hardening or tanning of the skin.

Formaldehyde is also a sensitizer. Previously exposed individuals may react to future exposure with an allergic eczematous dermatitis or hives. Eye exposure can cause injuries ranging form transient discomfort to severe, permanent corneal clouding and loss of vision. The severity of the effect depends on the concentration and whether or not the eyes are flushed with water immediately after the accident.

Chronic Effects of Exposure: Formaldehyde has the potential to cause cancer in humans. Repeated and prolonged overexposure increases the risk. Various animal experiments have conclusively shown formaldehyde to be a carcinogen in rats. In humans, formaldehyde overexposure has been associated with cancers of the lung, nasopharynx and oropharynx, and nasal passages. Formaldehyde is genotoxic in several in vitro test systems showing properties of both initiator and promoter. Prolonged or repeated overexposure may also result in respiratory impairment.

First Aid Procedures

First Aid should be administered by Campus Police.

Ingestion: if the victim is conscious, dilute, inactivate, or absorb by giving milk, activated charcoal or water. Any organic material will inactivate formaldehyde. Keep person warm and at rest, Get medical attention immediately. If vomiting occurs, keep head lower than hips.

Inhalation: Remove victim to fresh air immediately. When concentrations are very high, rescuers must wear self-contained breathing

apparatus. If breathing has stopped, give artificial respiration. Keep warm and at rest. Get medical attention immediately.

Skin Contact: Remove contaminated clothing immediately. Wash the affected area with soap and a large amount of water at least 15 to 20 minutes. If there are chemical burns or if irritation persists, get medical attention.

Eye Contact: Wash the eyes immediately with large amount of water at least 15 to 20 minutes. Get medical attention immediately.

Spill, Leak and Disposal Procedures

In the event of a leaking container, immediately place the container in a fume hood and transfer to a new container which has been properly labeled. Spills should be absorbed using vapor barrier pads and the pads collected for disposal as hazardous waste. Unused formaldehyde solutions must be disposed of as hazardous waste. Used concentrated solutions should also be collected for hazardous waste disposal. Used dilute solutions (less than one percent) can be further diluted and discharged to the sewer.

Material Safety Data Sheets and Container Labeling

Material Safety Data Sheets (MSDS) are provided by the manufacturer of all hazardous chemicals purchases. The formaldehyde MSDS will include information specific to that product such as the concentration of formaldehyde in a solution. CSC MSDS files are located at the north end of the second floor. MSDS copies are also available at Environmental Health & Safety.

Products capable of releasing 0.1 to 0.5 ppm of formaldehyde must be labeled with a warning that the product contains formaldehyde and that more information is available from the MSDS. For products capable of releasing greater than 0.5 ppm, the label must also address health hazards and include the words "Potential Cancer Hazard". Labels are available from the Chemical Hygiene Officer.

Protective Clothing and Equipment

All contact with the eyes or skin of solutions containing 1% or more of formaldehyde must be prevented by use of chemical splash goggles, gloves, and laboratory coats (as needed). Any situations where exposure levels would require the use of a respirator will be addressed on an individual basis by the Chemical Hygiene Officer.

Work Practices

Work with formaldehyde solutions should be performed in a fume hood whenever possible. Containers should be closed when not in use. Other precautions specific to the experiment may be required by the faculty.

Exposure Monitoring Procedures

All uses of formaldehyde must be reported to the Chemical Hygiene Officer so that the need for initial exposure monitoring can be determined. Initial exposure monitoring is conducted in all cases where exposures may be above 0.5 ppm as an 8-hr time weighted average, or 2.0 ppm as a 15-min time weighted average. If you are selected for exposure monitoring, you will be asked to wear a monitoring badge. Employees will be informed of the results of monitoring within 15 days of the receipt of the results. If initial monitoring demonstrates a potential for exceeding the permissible exposure limits, additional monitoring will be conducted.

Medical Surveillance

Medical surveillance is available in instances when routine exposures exceed 0.5 ppm as an 8-hr time weighted average or 2.0 ppm as a 15-min time weighted average, or you experience signs and symptoms related to formaldehyde exposure. Surveillance includes a medical disease questionnaire specified by OSHA and a physical examination if the physician determines it is necessary.

Questions

Any questions regarding formaldehyde exposure or the OSHA Standard should be addressed to the Lab Manager or Environmental Health & Safety.
APPENDIX 5-D

Cole Science Center

Examples of Known or Suspected Human Reproductive Toxins

- Key: F -- Fertility
- T -- Teratogens M -- Mutagens
- L -- Lactation
- SA -- Readily Absorbed Through the Skin

| CHEMICAL NAME | CAS # | F | T | M | L | SA | |
|--|-------------|-------------|---|---|-------------|--------------|--|
| 2,4,5-T | 000093-76-5 | | х | | | x | |
| ACETOHYDROXAMIC ACID | 000546-88-3 | | Х | | | X | |
| ACROLEIN | 000107-02-8 | | | Х | | X | |
| ACRYLAMIDE | 000079-06-1 | | Х | Х | | X | |
| ACRYLONITRILE | 000107-13-1 | | | Х | | X | |
| ACTINOMYCIN D | 000050-76-0 | | | Х | | X | |
| ALL-TRANS RETINOIC ACID | 000302-79-4 | | Х | Х | | X | |
| ALPRAZOMAN | 028981-97-7 | | Х | | | X | |
| AMANTADINE HYDROCHLORIDE | 000665-66-7 | | Х | | | X | |
| AMINOAZOTOLUENE, or tho- | 000097-56-3 | | | Х | | | |
| AMINODIPHENYL,4- | 000092-67-1 | | | Х | | X | |
| AMINOGLUTETHIMIDE | 000125-84-8 | | Х | | | X | |
| AMINOPTERIN | 000054-62-6 | | х | | | | |
| ANGIOTENSIN CONVERTING ENZYME (ACE) INHIBITORS | 000000-00-0 | | Х | | | | |
| ANISINDIONE | 000117-37-3 | | Х | | | | |
| ARSENEOUS ACID, CALCIUM SALT | 027152-57-4 | | Х | | | X | |
| ARSENEOUS ACID, POTASSIUM SALT | 010124-50-2 | | Х | | | X | |
| ARSENIC ACID | 007778-39-4 | | х | | | X | |
| ARSENIC ACID, CALCIUM SALT (2:3) | 007778-44-1 | | Х | | | X | |
| ARSENIC ACID, DISODIUM SALT, HEPTAHYDRATE | 010048-95-0 | | Х | | | X | |
| ARSENIC ACID, LEAD(2+) SALT (1:1) | 007784-40-9 | | Х | | | X | |
| ARSENIC ACID, MONOPOTASSIUM SALT | 007784-41-0 | | Х | | | X | |
| ARSENIC ACID, SODIUM SALT | 007631-89-2 | | Х | | | X | |
| ARSENIC AND COMPOUNDS | 007440-38-2 | | Х | | | X | |
| ARSENIC PENTAFLUORIDE | 007784-36-3 | | Х | | | | |
| ARSENIC PENTOXIDE | 001303-28-2 | | Х | | | | |
| ARSENIC TRICHLORIDE | 007784-34-1 | | Х | | | | |
| ARSENIC TRIOXIDE | 001327-53-3 | | Х | | | | |
| ARSENIUOS ACID, CALCIUM SALT | 027152-57-4 | | Х | | | X | |
| ARSENIUOS ACID, MONOSODIUM SALT | 007784-46-5 | | Х | | | X | |
| ARSINE | 007784-42-1 | | Х | | | X | |
| ARSONIC ACID | 000097-44-9 | | Х | | | X | |
| ARSONIC ACID, CALCIUM SALT (1:1) | 052740-16-6 | | Х | | | X | |
| ASPRIN | 000050-78-2 | | Х | | | | |
| ATENOLO | 029122-68-7 | | Х | | | X | |
| AURAMINE | 000492-80-8 | | | Х | | | |
| AURANOFIN | 034031-32-8 | | | Х | | | |
| AZATHIOPRINE | 000446-86-6 | | | Х | | | |
| AZIRIDINE | 000151-56-4 | | | | | X | |
| BARBITURATES | 000000-00-0 | | х | | | | |
| BECLOMETHASONE DIPROPIONATE | 005534-09-8 | X | Х | | | | |
| BENOMYL | 017804-35-2 | X | Х | Х | | X | |

- Key: F -- Fertility T -- Teratogens M -- Mutagens
- L -- Lactation
- SA -- Readily Absorbed Through the Skin

| BENZENE 000071-43-2 | CHEMICAL NAME | CAS # | F | T | M | L | SA | |
|---|--|-------------|-------------|-------------|---------|---|----|---|
| BENZQ1a/PYENE 000050-32.8 x x x BENZD1a/PYENE 000050-32.8 x x x BENZPLC/LORIDE 00010-44.7 x x x BENZPLC/LCNDIDE 000059-32.8 x x x BENZPLC/LCNDIDE 000059-32.4 x x x BROMDOLC/NURDONE 000059-43.8 x x x BROMDOLC/NURDOROMETHANE 000075-27.4 x x x BROMODCIC/LOROMETHANE 000075-27.4 x x x BROMODCIC/LOROMETHANE 000075-27.4 x x x BROMORYNIL CORMETHANE 000075-27.4 x x x BROMOXYNIL 001689-99-2 x x x x BROMOXYNIL OCTANOATE 010168-99-2 x x x x x CADMIUM CARBONATE 000103-49.0 x x x x x CADMIUM CARBONATE 010124-36.4 x x x | BENZENE | 000071-43-2 | | | x | | x | I |
| BENZPHEAMANE HYDROCLORIDE 005411-22.3 x x x BENZPL CHLORIDE 005411-22.3 x x x x BENZYL CHLORIDE 000100-44-7 x x x x x BROMODEOXYURIDINE 000059-14-3 x x x x x x BROMORDPARE, 1- 000075-27-4 x x x x x BROMORDPROPANE, 1- 00106-94-5 x x x x x BROMOROPROPANE, 1- 001689-99-2 x x x x x BROMOROPONEU 001689-99-2 x x x x x x BUTANEDIOL DIMETHANESULFONATE 00013-78-0 x | BENZOIaIPYRENE | 000050-32-8 | 1 | | | | | i |
| BENZYL CHLORIDE 000100-44-7 X <td>BENZPHETAMINE HYDROCI ORIDE</td> <td>005411-22-3</td> <td>1</td> <td>l x</td> <td></td> <td></td> <td>x</td> <td>i</td> | BENZPHETAMINE HYDROCI ORIDE | 005411-22-3 | 1 | l x | | | x | i |
| BISCHLORDETHYL NITROSOUREA (BCNU) 000154-93-8 x <td>BENZYI CHI ORIDE</td> <td>000100-44-7</td> <td> </td> <td>l x</td> <td> </td> <td></td> <td></td> <td>i</td> | BENZYI CHI ORIDE | 000100-44-7 | | l x | | | | i |
| BROMODEOXYURIDINE 000059-14-3 IX IX IX BROMODICHLOROMETHANE 000075-27-4 IX X IX BROMODICHLOROMETHANE 000075-27-4 IX X IX BROMOROPANE, 1- 000169-94-5 IX IX IX BROMOROPANE, 2- 000075-26-3 IX IX IX BROMOXYNIL 01689-94-5 IX X IX BROMONZYNIL 001689-99-2 IX X IX BROMOROPANE, 1- 001689-99-2 IX X IX CADMIUM CARDONATE 001689-99-2 IX X X IX CADMIUM AND COMPOUNDS 007440-43-9 X X IX X IX CADMIUM CLORIDE 01108-64-2 X X X IX IX CADMIUM MUDRIDE 01306-19-0 X X X IX IX CADMIUM SULFATE (1:1) 01306-19-0 X X X IX IX CADMIUM SULFATE | BISCHLOROFTHYL NITROSOUREA (BCNU) | 000154-93-8 | | | l x | | | i |
| BROMODICHLOROMETHANE 000075-27-4 x x x BROMOPROPANE, 1- 000106-94-5 x x x x BROMOPROPANE, 2- 000075-27-4 x x x x BROMOPROPANE, 2- 001639-84-5 x x x x BROMOROPANE, 2- 01689-99-2 x x x x BROMOROPONE 01689-99-2 x x x x BUTANEDIC DIMETHANESULFONATE, 1,4- (BUSULFAN) 000055-98-1 x x x x CADMIUM CARBONATE 010108-64-2 x x x x x CADMIUM FLUOBORATE 01136-19-2 x x x x x CADMIUM NITRATE 01306-19-0 x x x x x x x CADMIUM SULFATE (1:1) 01124-36-4 x x x x x x CARBON MONOXIDE 00035-15-0 x x x x x <td>BROMODEOXYURIDINE</td> <td>000059-14-3</td> <td> </td> <td>l x</td> <td>x x</td> <td></td> <td></td> <td>i</td> | BROMODEOXYURIDINE | 000059-14-3 | | l x | x x | | | i |
| BROMOPROPANE, 1- 000106-94-5 x x x BROMOPROPANE, 2- 000075-26-3 x x x BROMOYNIL 001689-84-5 x x x BROMOXYNIL CCTANOATE 001689-99-2 x x x BUTANEDIOL DIMETHANESULFONATE, 1,4- (BUSULFAN) 000055-98-1 x x x x CADMIUM CARBONATE 000513-78-0 x x x x x x x CADMIUM CARBONATE 010108-64-2 x x x x x x x x CADMIUM CARBONATE 010136-19-0 x </td <td>BROMODICHI OROMETHANE</td> <td>000075-27-4</td> <td> </td> <td></td> <td>x x</td> <td></td> <td></td> <td>i</td> | BROMODICHI OROMETHANE | 000075-27-4 | | | x x | | | i |
| BROMOPROPANE, 2- 000075-26-3 Image: Constraint of the second | BROMOPROPANE. 1- | 000106-94-5 | | l x | | | | i |
| BROMOXYNIL 001689-84-5 x | BROMOPROPANE, 2- | 000075-26-3 | | l x | | | | i |
| BROMOXYNIL OCTANOATE 001689-99-2 x x x BUTANEDIOL DIMETHANESULFONATE, 1.4- (BUSULFAN) 000055-98-1 x x x x CADMIUM AND COMPOUNDS 007440-43-9 x | BROMOXYNII | 001689-84-5 | | l x | | | x | i |
| BUTANEDIOL DIMETHANESULFONATE, 1,4- (BUSULFAN) 000055-98-1 x <td>BROMOXYNIL OCTANOATE</td> <td>001689-99-2</td> <td>1</td> <td>l x</td> <td></td> <td></td> <td>x</td> <td>i</td> | BROMOXYNIL OCTANOATE | 001689-99-2 | 1 | l x | | | x | i |
| CADMIUM AND COMPOUNDS 007440-43-9 x | BUTANEDIOL DIMETHANESULEONATE, 1.4- (BUSULEAN) | 000055-98-1 | x | l x | l x | | | i |
| CADMIUM CARBONATE 000513-78-0 x | CADMIUM AND COMPOUNDS | 007440-43-9 | x x | l x | x | | | i |
| CADMIUM CHLORIDE 010108-64-2 x | CADMIUM CARBONATE | 000513-78-0 | x x | l x | x | | | i |
| CADMIUM FLUOBORATE 014486-19-2 x <td< td=""><td>CADMIUM CHLORIDE</td><td>010108-64-2</td><td>x x</td><td>l x</td><td>x</td><td></td><td>x</td><td>i</td></td<> | CADMIUM CHLORIDE | 010108-64-2 | x x | l x | x | | x | i |
| CADMIUM NITRATE 010325-94-7 X< | CADMIUM FLUOBORATE | 014486-19-2 | | l x | x x | | | i |
| CADMIUM OXIDE 01306-19-0 X <td>CADMIUM NITRATE</td> <td>010325-94-7</td> <td> x</td> <td>l x</td> <td>l x</td> <td></td> <td></td> <td>i</td> | CADMIUM NITRATE | 010325-94-7 | x | l x | l x | | | i |
| CADMIUM SULFATE (1:1) 010124-36-4 x | CADMIUM OXIDE | 001306-19-0 | | l x | x x | | | i |
| CADMIUM SULFIDE 001306-23-6 x< | CADMIUM SUI FATE (1:1) | 010124-36-4 | | l x | x x | | | i |
| CARBAMAZEPINE 000298-46-4 x x x CARBAMAZEPINE 000075-15-0 x x x x CARBON DISULFIDE 000630-08-0 x x x x CARBON MONOXIDE 000630-08-0 x x x x x CARBOPLATIN 041575-94-4 x x x x x x CHLORAMBUCIL 000305-03-3 x x x x x x CHLORAMPHENICOL 000056-75-7 x x x x x x CHLORDANE, ALPHA 005103-74-9 x x x x x x CHLORDANE, ALPHA 005103-71-9 x x x x x x CHLORDANE, GAMMA 00556-34-7 x x x x x x x x CHLORDIAZEPOXIDE 000058-25-3 x x x x x x x CHLORDARDORDR 000067-66-3 x x x x x < | CADMIUM SULFIDE | 001306-23-6 | | l x | x x | | | i |
| CARBON DISULFIDE 000075-15-0 x x x x CARBON MONOXIDE 000630-08-0 x x x x CARBON MONOXIDE 000630-08-0 x x x x CARBON MONOXIDE 000630-08-0 x x x x CARBON MONOXIDE 000057-79-94-4 x x x x CHLORAMPLENICOL 000056-75-7 x x x x CHLORDANE, ALPHA 005103-71-9 x x x x CHLORDANE, BETA 005103-71-9 x x x x CHLORDANE, GAMMA 005566-34-7 x x x x CHLORDIAZEPOXIDE 000058-25-3 x x x x CHLOROFORM 000067-66-3 x x x x CHLOROFORM 000067-66-3 x x x x CHLOROFORM 000067-66-3 x x x x CHLORO-O-PHENYLENEDIAMINE,4- 000095-83-0 x x x < | CARBAMAZEPINE | 000298-46-4 | | l x | | | | i |
| CARBON MONOXIDE 000630-08-0 x x x x CARBOPLATIN 041575-94-4 x x x x x CHLORAMBUCIL 00030-03-3 x x x x x x CHLORAMPHENICOL 000056-75-7 x x x x x x CHLORDANE 000057-74-9 x x x x x x CHLORDANE, ALPHA 005103-71-9 x x x x x x CHLORDANE, GAMMA 005566-34-7 x | CARBON DISULFIDE | 000075-15-0 | l x | l x | | | x | i |
| CARBOPLATIN 041575-94-4 x x x CHLORAMBUCIL 000305-03-3 x x x x CHLORAMPHENICOL 000056-75-7 x x x x CHLORANE 000057-74-9 x x x x CHLORDANE, ALPHA 005103-71-9 x x x x CHLORDANE, BETA 005103-74-2 x x x x CHLORDANE, GAMMA 005566-34-7 x x x x CHLORDIZEPOXIDE 000058-25-3 x x x x CHLORO-2-METHYLPROPENE, 3- 000056-47-3 x x x x CHLOROFORM 000007-66-3 x x x x x CHLOROMETHYL ETHER,BIS- 000107-30-2 x x x x x CHLORO-0-PHENYLENEDIAMINE,4- 000095-83-0 x x x x x CHLORO-O-TOLUIDINE, 4- 000126-99-8 x x x x x CHLOROPRENE 000126-99-8 x </td <td>CARBON MONOXIDE</td> <td>000630-08-0</td> <td></td> <td>l x</td> <td> </td> <td></td> <td></td> <td>i</td> | CARBON MONOXIDE | 000630-08-0 | | l x | | | | i |
| CHLORAMBUCIL 000305-03-3 x x x x CHLORAMBUCIL 000305-03-3 x x x x x CHLORAMPHENICOL 000056-75-7 x x x x x CHLORDANE 000057-74-9 x x x x x CHLORDANE, ALPHA 005103-71-9 x x x x x CHLORDANE, BETA 005103-74-2 x x x x x CHLORDANE, GAMMA 005566-34-7 x x x x x CHLORDIAZEPOXIDE 000058-25-3 x x x x x CHLOROFORM 0000563-47-3 x x x x x CHLOROFORM 000067-66-3 x x x x x x CHLOROMETHYL ETHER,BIS- 00017-30-2 x x x x x CHLORO-0-PHENYLENEDIAMINE,4- 000095-69-2 x x x x x CHLORO-0-TOLUIDINE, 4- 000126-99-8 x <td>CARBOPIATIN</td> <td>041575-94-4</td> <td> </td> <td>l x</td> <td> </td> <td></td> <td>x</td> <td>i</td> | CARBOPIATIN | 041575-94-4 | | l x | | | x | i |
| CHLORAMPHENICOL 000056-75-7 x x x CHLORAMPHENICOL 000057-74-9 x x x CHLORDANE 00015103-71-9 x x x CHLORDANE, ALPHA 005103-74-2 x x x CHLORDANE, BETA 005103-74-2 x x x CHLORDANE, GAMMA 005566-34-7 x x x CHLORDIAZEPOXIDE 000058-25-3 x x x CHLORDIAZEPOXIDE 000056-47-3 x x x CHLORDIAZEPOXIDE 000058-25-3 x x x x CHLOROFORM 000067-66-3 x x x x CHLOROMETHYL ETHER, BIS- 0000542-88-1 x x x x CHLOROMETHYL METHYL ETHER 000107-30-2 x x x x CHLORO-0-PHENYLENEDIAMINE,4- 000095-69-2 x x x x CHLOROPRENE 000126-99-8 x x x x CHLOROPRENE 0015663-27-1 x x x | CHIORAMBUCII | 000305-03-3 | 1 | l x | | | | i |
| CHLORDANE 000057-74-9 x x x CHLORDANE, ALPHA 005103-71-9 x x x CHLORDANE, BETA 005103-74-2 x x x CHLORDANE, GAMMA 005566-34-7 x x x CHLORDIAZEPOXIDE 000058-25-3 x x x CHLORDIAZEPOXIDE 000058-25-3 x x x CHLORDIAZEPOXIDE HYDROCHLORIDE 000438-41-5 x x x CHLOROFORM 000067-66-3 x x x x CHLOROMETHYL ETHER,BIS- 000067-66-3 x x x x CHLOROMETHYL ETHER,BIS- 0000058-28-1 x x x x CHLORO-O-PHENYLENEDIAMINE,4- 000095-69-2 x x x x CHLOROPRENE 000126-99-8 x x x x x CHROMIUM, HEXAVALENT COMPOUNDS 000000-00-0 x x x x x CLOBETASOL PROPIONATE 025122-46-7 x x x x x x | CHLORAMPHENICOL | 000056-75-7 | | | x I | | | i |
| CHLORDANE, ALPHA 005103-71-9 I X X CHLORDANE, BETA 005103-74-2 I X X CHLORDANE, GAMMA 005566-34-7 I X X CHLORDIAZEPOXIDE 000058-25-3 I X I I CHLORDIAZEPOXIDE HYDROCHLORIDE 000438-41-5 I I I I CHLOROFORM 000067-66-3 I X I I I CHLOROMETHYL ETHER,BIS- 000107-30-2 I X I I CHLORO-0-PHENYLENEDIAMINE,4- 000095-83-0 I X I I CHLORO-0-TOLUIDINE, 4- 000107-30-2 I X I I CHLORO-0-PHENYLENEDIAMINE,4- 000095-69-2 I X I I CHLOROPRENE 000126-99-8 X X I I I CHLOROPRENE 000000-00-0 X X I I I CHLOROPRENE 000126-99-8 X X I I I CHROMIUM, HEXAVALENT COMPOUNDS 000000-00-0 <t< td=""><td>CHLORDANE</td><td>000057-74-9</td><td></td><td>Ì</td><td>x</td><td></td><td>x</td><td>i</td></t<> | CHLORDANE | 000057-74-9 | | Ì | x | | x | i |
| CHLORDANE, BETA 005103-74-2 x x x CHLORDANE, GAMMA 005566-34-7 x x x CHLORDIAZEPOXIDE 000038-25-3 x 1 1 CHLORDIAZEPOXIDE 000438-41-5 x 1 1 CHLORO-2-METHYLPROPENE, 3- 000563-47-3 x 1 1 CHLOROFORM 000067-66-3 x x 1 CHLOROMETHYL ETHER,BIS- 000107-30-2 x x 1 CHLORO-0-PHENYLENEDIAMINE,4- 000095-83-0 x x 1 CHLOROPRENE 000126-99-8 x x x 1 CHLOROPRENE 0000000-00-0 x x x 1 CHLOROPRENE 000000-00-0 x x 1 1 CHROMIUM, HEXAVALENT COMPOUNDS 000000-00-0 x x 1 1 CLOBETASOL PROPIONATE 025122-46-7 x 1 1 1 1 CLOBETASOL PROPIONATE 000050-41-9 x x 1 1 1 | CHLORDANE, ALPHA | 005103-71-9 | | ļ | x | | x | i |
| CHLORDANE, GAMMA 005566-34-7 x x x CHLORDIAZEPOXIDE 000058-25-3 x 1 1 CHLORDIAZEPOXIDE HYDROCHLORIDE 000438-41-5 x 1 1 CHLORO-2-METHYLPROPENE, 3- 000563-47-3 x 1 1 CHLOROFORM 000067-66-3 x x 1 CHLOROMETHYL ETHER, BIS- 000107-30-2 x x 1 CHLORO-0-PHENYLENEDIAMINE,4- 000095-83-0 x x 1 CHLOROPENE 000126-99-8 x x x 1 CHLOROPENE 0000095-69-2 x x x 1 CHLOROPRENE 000126-99-8 x x x 1 CHLOROPRENE 00126-99-8 x x 1 1 CLOBETASOL PROPIONATE 025122-46-7 x 1 1 1 CLOBETASOL PROPIONATE 025122-46-7 x 1 1 1 | CHLORDANE, BETA | 005103-74-2 | | İ | x | | x | i |
| CHLORDIAZEPOXIDE 000058-25-3 x CHLORDIAZEPOXIDE HYDROCHLORIDE 000438-41-5 x | CHLORDANE, GAMMA | 005566-34-7 | | İ | x | | x | i |
| CHLORDIAZEPOXIDE HYDROCHLORIDE 000438-41-5 x 1 CHLORO-2-METHYLPROPENE, 3- 000563-47-3 x 1 CHLOROFORM 000067-66-3 x 1 CHLOROMETHYL ETHER, BIS- 000542-88-1 x x 1 CHLOROO-0-PHENYLENEDIAMINE, 4- 000095-83-0 x x 1 CHLOROPRENE 000126-99-8 x x 1 CHLOROPRENE 000126-99-8 x x 1 CHLOROPRENE 000000-00-0 x x 1 CHLOROPRENE 000000-00-0 x x 1 CLOBETASOL PROPIONATE 025122-46-7 x 1 CLOMIPHENE CITRATE 000050-41-9 x x 1 | CHLORDIAZEPOXIDE | 000058-25-3 | | x | İ | | | i |
| CHLORO-2-METHYLPROPENE, 3- 000563-47-3 x x x CHLOROFORM 000067-66-3 x x x x CHLOROMETHYL ETHER,BIS- 000542-88-1 x x x x CHLOROMETHYL METHYL ETHER 000107-30-2 x x x x CHLORO-O-PHENYLENEDIAMINE,4- 000095-83-0 x x x x CHLOROPRENE 000126-99-8 x x x x x CHLOROPRENE 000000-00-0 x x x x x CHROMIUM, HEXAVALENT COMPOUNDS 000000-00-0 x x x x x CLOBETASOL PROPIONATE 025122-46-7 x x x x x CLOMIPHENE CITRATE 000050-41-9 x x x x x | CHLORDIAZEPOXIDE HYDROCHLORIDE | 000438-41-5 | | İ x | | | | i |
| CHLOROFORM 000067-66-3 x x x CHLOROMETHYL ETHER,BIS- 000542-88-1 x x x CHLOROMETHYL METHYL ETHER 000107-30-2 x x x CHLORO-O-PHENYLENEDIAMINE,4- 000095-83-0 x x x CHLOROPRENE 000126-99-8 x x x x CHLOROPRENE 000126-99-8 x x x x CHROMIUM, HEXAVALENT COMPOUNDS 000000-00-0 x x x x CLOBETASOL PROPIONATE 025122-46-7 x x x x x CLOMIPHENE CITRATE 000050-41-9 x x x x x | CHLORO-2-METHYLPROPENE, 3- | 000563-47-3 | ĺ | İ | x | | | i |
| CHLOROMETHYL ETHER,BIS- 000542-88-1 x x x CHLOROMETHYL METHYL ETHER 000107-30-2 x x x CHLORO-O-PHENYLENEDIAMINE,4- 000095-83-0 x x x CHLORO-O-TOLUIDINE, 4- 000095-69-2 x x x CHLOROPRENE 000126-99-8 x x x x CHROMIUM, HEXAVALENT COMPOUNDS 000000-00-0 x x x x CLOBETASOL PROPIONATE 025122-46-7 x x x x CLOMIPHENE CITRATE 000050-41-9 x x x x | CHLOROFORM | 000067-66-3 | | İ | x | | | i |
| CHLOROMETHYL METHYL ETHER 000107-30-2 x x x CHLORO-O-PHENYLENEDIAMINE,4- 000095-83-0 x x x x CHLORO-O-TOLUIDINE, 4- 000095-69-2 x x x x x CHLOROPRENE 000126-99-8 x x x x x x CHROMIUM, HEXAVALENT COMPOUNDS 000000-00-0 x x x x x CLOBETASOL PROPIONATE 025122-46-7 x x x x x CLOMIPHENE CITRATE 000050-41-9 x x x x x | CHLOROMETHYL ETHER BIS- | 000542-88-1 | | İ | x | | x | i |
| CHLORO-O-PHENYLENEDIAMINE,4- 000095-83-0 x x x x CHLORO-O-TOLUIDINE, 4- 000095-69-2 x x x x CHLOROPRENE 000126-99-8 x x x x x CHROMIUM, HEXAVALENT COMPOUNDS 000000-00-0 x x x x x CISPLATIN 015663-27-1 x x x x x x CLOBETASOL PROPIONATE 025122-46-7 x x x x x CLOMIPHENE CITRATE 000050-41-9 x x x x x | CHLOROMETHYL METHYL ETHER | 000107-30-2 | | İ | x | | | i |
| CHLORO-O-TOLUIDINE, 4- 000095-69-2 | CHLORO-O-PHENYLENEDIAMINE.4- | 000095-83-0 | | İ | x | | | i |
| CHLOROPRENE 000126-99-8 x | CHLORO-O-TOLUIDINE, 4- | 000095-69-2 | | Ì | x | | | i |
| CHROMIUM, HEXAVALENT COMPOUNDS 000000-00-0 x x 1 CISPLATIN 015663-27-1 1 x 1 CLOBETASOL PROPIONATE 025122-46-7 x 1 1 CLOMIPHENE CITRATE 000050-41-9 1 x 1 1 | CHLOROPRENE | 000126-99-8 | x | x | x | | x | ľ |
| CISPLATIN 015663-27-1 | CHROMIUM, HEXAVALENT COMPOUNDS | 000000-00-0 | x | | x | | | ĺ |
| CLOBETASOL PROPIONATE 025122-46-7 x CLOMIPHENE CITRATE 000050-41-9 x x | CISPLATIN | 015663-27-1 | | | x | | | ľ |
| CLOMIPHENE CITRATE 000050-41-9 x x | CLOBETASOL PROPIONATE | 025122-46-7 | | x | | | | ĺ |
| | CLOMIPHENE CITRATE | 000050-41-9 | | x | X | | | ĺ |

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- Key: F -- Fertility T -- Teratogens M -- Mutagens
- L -- Lactation
- SA -- Readily Absorbed Through the Skin

| CHEMICAL NAME | CAS # | F | T | M | L | SA | |
|---|-------------|---------|---------|---|---------|----------|----|
| CLORAZEPATE DIPOTASSIUM | 057109-90-7 | | x | | | | ì |
| COLCHICINE | 000064-86-8 | i | | x | | | i |
| CYCLOHEXIMIDE | 000066-81-9 | i | | x | | x | i |
| CYCLOPHOSPHAMIDE | 006055-19-2 | x | x | X | | l x | i |
| CYCLOPHOSPHAMIDE | 000050-18-0 | x | x | x | | x | i. |
| CYCLOSPORIN | 079217-60-0 | x | x | | | x | i. |
| CYCLOSPORIN A | 059865-13-3 | x | x | | | x | i. |
| CYTARABINE | 000147-94-4 | i | x | | | l | i. |
| DANAZOL | 017230-88-5 | x | | | | l | i. |
| DAUNOMYCIN | 020830-81-3 | i | | x | | ĺ | i. |
| DDT | 000050-29-3 | x | x | | | x l | i |
| DEMECLOCYCLINE HYDROCHLORIDE (INTERNAL USE) | 000064-73-3 | i | x | | | ĺ | i |
| DIAMINOANISOLE, 2,4- (AND ITS SALTS) | 000615-05-4 | i | | x | | ĺ | i. |
| DIAMINOTOLUENE, 2,4- | 000095-80-7 | i | | x | | ĺ | i |
| DIAZEPAM | 000439-14-5 | i | x | | | x l | i |
| DIBENZ[a,h]ANTHRACENE | 000053-70-3 | i | | x | | ĺ | i. |
| DIBROMO-3-CHLOROPROPANE,1,2- | 000096-12-8 | x | | | | x l | i |
| DIBROMOACETONITRILE | 003252-43-5 | i | | x | | x l | i |
| DIBROMOPROPYL (2,3) PHOSPHATE | 000126-72-7 | i | | x | | x | i. |
| DICHLOROBENZIDINE, 3,3- | 000091-94-1 | i | | x | | x l | i |
| DICHLOROETHANE, 1,2- | 000107-06-2 | i | | x | | x l | i |
| DICHLOROMETHANE | 000075-09-2 | İ | | x | | | i |
| DICHLORVOS | 000062-73-7 | i | | x | | x l | i. |
| DICUMAROL | 000066-76-2 | i | x | | | İ | i. |
| DIEPOXYBUTANE | 001464-53-5 | i | | x | | x | i |
| DIETHYLSTILBOESTROL | 000056-53-1 | Х | x | | | x | İ. |
| DIFLUNISAL | 022494-42-4 | i | x | | | İ | İ. |
| DIGITOXIN | 000071-63-6 | i | x | | | x | i |
| DIMETHANESULFONATE, 1,4- | 000299-75-2 | i | x | | ĺ | İ | İ. |
| DIMETHYL ARSENIC ACID | 000075-60-5 | i | x | | | İ | İ. |
| DIMETHYL MERCURY | 000593-74-8 | i | | | İ | , X | İ. |
| DIMETHYL SULFATE | 000077-78-1 | i | | x | | x | İ. |
| DIMETHYLACETAMIDE, N,N- | 000127-19-5 | i | x | | | j x | İ. |
| DIMETHYLAMINOAZOBENZENE, 4- | 000060-11-7 | i | | x | İ | İ | İ. |
| DIMETHYLCARBAMOYL CHLORIDE | 000079-44-7 | i | | x | İ | İ | İ. |
| DIMETHYLFORMAMIDE | 000068-12-2 | i | | x | | j x | İ. |
| DIMETHYLHYDRAZINE, 1,1- | 000057-14-7 | i | | x | İ | , X | İ. |
| DIMETHYLHYDRAZINE, 1,2- | 000540-73-8 | i | | x | İ | , X | İ. |
| DI-N-BUTYL PHTHALATE | 000084-74-2 | i | x | | | İ | İ |
| DI-N-HEXYL PHTHALATE | 000084-75-3 | X | X | | | | i |
| DINITROPYRENE, 1,6- | 042397-64-8 | İ | | x | | | İ |
| DINITROPYRENE, 1,8- | 042397-65-9 | İ | | Х | | | İ |
| DINITROTOLUENE, 2,4- | 000121-14-2 | | | Х | | X | |

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| CHEMICAL NAME | CAS # | F | T | M | L | SA | |
|--|-------------|---------|---------|-----|---------|----------|---|
| DINITROTOLUENE 26- | 000606-20-2 | | | | | x | I |
| DINOSEB | 000088-85-7 | 1 | l x | | | | i |
| | 000117-81-7 | 1 | | l x | | | i |
| | 000057-41-0 | | 1 | | | 1 | i |
| | 023214-92-8 | 1 | 1 | | | 1 | i |
| | 000564-25-0 | 1 | | | | 1 | i |
| ENDOSTIL FAN | 000304-23-0 | | 1 | | | l l x | i |
| EPICHI OROHYDRIN | 000106-89-8 | 1 | 1 | | | | i |
| ERGOTAMINE TARTRATE | 000100 07 0 | 1 | | | | | i |
| ETHIDII IM BROMIDE | 000377-77-3 | | 1 | | | 1 | i |
| ETHIONAMIDE | 001237-43-0 | 1 | l Iv | | | | i |
| | 000000-00-4 | 1 | | l v | | | i |
| | 000002-30-0 | v | l Iv | | | l Iv | i |
| | 000100-73-4 | | | | | | i |
| | 000000-00-0 | | | | | | I |
| | 000073-21-0 | 1 | | | | | I |
| | 009002-90-0 | 1 | | | | | I |
| | 000147-37-3 | 1 | | | | | I |
| | 000709-70-9 | 1 | | | | | I |
| | 053419-42-0 | 1 | | | | | I |
| | 000051 01 0 | 1 | | | | | ļ |
| | 000076 42 7 | | X | X | | | ļ |
| | | | | | | | ļ |
| | 000000-00-0 | | | X | | | ļ |
| | 001332-10-1 | | X | | | | ļ |
| | 003088-53-7 | | | | | | ļ |
| | 082410-32-0 | | X | | | | ļ |
| | 10/910-75-8 | | X | | | | ļ |
| | 067730-11-4 | | | X | | | ļ |
| GLU-P-2(2-AMINODIPYRIDO[1,2-A:3,2-DJIMIDAZOLE) | 067730-10-3 | | | X | | | ļ |
| | 000000-02-0 | | | | | X | ļ |
| GUSSIPUL | 000303-45-7 | X | | Х | | | ļ |
| GRISEUFULVIN | 000126-07-8 | | | Х | | | ļ |
| HALOPERIDUL | 000052-86-8 | | X | | | | ļ |
| HALOTHANE | 000151-67-7 | | X | | | | ļ |
| | 000076-44-8 | | | Х | | X | ļ |
| HEPTACHLOR EPOXIDE | 001024-57-3 | | | Х | | X | ļ |
| HEXACHLOROBENZENE | 000118-74-1 | | | | Х | X | ļ |
| HEXACHLOROBENZENE, GAMMA | 000058-89-9 | | | | | X | ļ |
| HEXAMETHYLPHOSPHORAMIDE | 000680-31-9 | | | Х | | X | ļ |
| HYDRAZINE | 000302-01-2 | | | Х | | X | ļ |
| HYDRAZINE SULFATE (1:1) | 010034-93-2 | | | X | | X | ļ |
| HYDROXYUREA | 000127-07-1 | | X | | | | ļ |
| IDARUBICIN HYDROCHLORIDE | 057852-57-0 | | X | X | | | |

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| | | | | | | / | _ |
|--|-------------|---------|---------|----------|---------|----------|---|
| CHEMICAL NAME | CAS # | F | T | M | L | SA | |
| IFOSFAMIDE | 003778-73-2 | | | _X | | | |
| ISOTRETINOIN | 004759-48-2 | i | x | | | Ì | i |
| KEPONE (CHI ORDECONE) | 000143-50-0 | x | | | | x | i |
| LASIOCARPINE | 000303-34-4 | | | x I | | | i |
| LEAD PHOSPHATE | 007446-27-7 | x | l x | | x | Ì | i |
| I FAD ACETATE | 000301-04-2 | x | l x | x I | x | Ì | i |
| I FAD ACETATE (II) TRIHYDRATE | 006085-56-4 | | x | | x | 1 | i |
| LEAD AND COMPOUNDS | 007439-92-1 | | l x | | x | | i |
| LEAD CHROMATE (VI) OXIDE | 018454-12-1 | | l x | | x | 1 | i |
| I EVODOPA | 000059-92-7 | | | | | 1 | i |
| | 000330-55-2 | 1 | l x | | | 1 | i |
| | 007439-93-2 | | | | | 1 | ł |
| I ORAZEPAM | 000846-49-1 | 1 | | | | 1 | i |
| MERENDAZOLE | 031431-39-7 | 1 | | l x l | | 1 | i |
| MEDROXYPROGESTERONE ACETATE | 000071-58-9 | 1 | l x | | | 1 | i |
| MEGESTROI ACETATE | 000595-33-5 | x | | | | 1 | i |
| MEIPHALAN | 000148-82-3 | | | | | 1 | i |
| MERCURY AND COMPOUNDS | 007439-97-6 | | l x | | | x | i |
| MESTRANOI | 000072-33-3 | | | | | | i |
| METHIMAZOL F | 000060-56-0 | | l x | l x l | | | i |
| METHOTREXATE SODIUM | 015475-56-6 | 1 | | | | | i |
| METHYL BROMIDE | 000074-83-9 | | Ì | x | | x | i |
| METHYL CHLORIDE | 000074-87-3 | i | İ | x I | | İ | i |
| METHYL HYDRAZINE | 000060-34-4 | i | İ | x I | | x | i |
| METHYL MERCURY AND COMPOUNDS | 022967-92-6 | i | ĺ | | x | x | i |
| METHYL METHANESULPHONATE | 000066-27-3 | i | İ | x | | i | i |
| METHYLAMINOPTERIN | 000059-05-2 | i | x | x | | i | i |
| METHYLARSONIC ACID | 000124-58-3 | İ | x | | | İ | i |
| METHYLAZIRIDINE, 2- (PROPYLENEIMINE) | 000075-55-8 | i | ĺ | x | | x | i |
| METHYLAZOXYMETHYL ACETATE | 000592-84-7 | i | İ | x | | İ | i |
| METHYLDICHLOROARSINE | 000593-89-5 | i | x | | | x | i |
| METHYL-N-NITRO-N'-NITROSOGUANIDINE,N- (MNNG) | 000070-25-7 | i | İ | x | | i | i |
| METHYL-N-NITROSOUREA,N- | 000684-93-5 | i | İ | x | | İ | i |
| METHYLTESTOSTERONE | 000058-18-4 | i | x | i | | i | i |
| METHYLTHIOURACIL | 000056-04-2 | i | x | | | i | i |
| METRONIDAZOLE | 000443-48-1 | i | İ | x | | İ | i |
| METRONIDIZOL | 000443-81-1 | i | İ | x | | i | i |
| MIREX | 002385-85-5 | х | İ | i | | х | i |
| MISOPROSTOL | 059122-46-2 | i | x | | | ĺ | Í |
| MITOMYCIN C | 000050-07-7 | i | İ | x | | ĺ | İ |
| MITOXANTRONE HYDROCHLORIDE | 070476-82-3 | i | İ | x | | X | İ |
| MONOCHLORO-1,2-PROPANEDION,3- | 000096-24-2 | İ | х | x | | X | İ |
| MONOCROTALINE | 000315-22-0 | | | X | | | Í |

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| CHEMICAL NAME | CAS # | F | T | М | L | SA | |
|---------------------------------|----------------------------|----------|---------|--------|---|----------|----|
| MUSTARD GAS (SUI PHUR MUSTARD) | 000505-60-2 | | | X | | | ľ |
| MYCLOBUTANII | 088671-89-0 | Ì | l x | ~ | | | i |
| NAPHTHYI METHYI CARBAMATE | 000063-25-2 | l x | | x | | | i |
| NAPHTHYLAMINE 2- | 000091-59-8 | | | x | | l x | ï |
| NICKEL SUI FIDE (3:2) | 012035-72-2 | Ì | | x | | | i |
| NICOTINE | 000054-11-5 | Ì | l x | ~ | | l x | i |
| NIFFDIPINF | 021829-25-4 | 1 | x x | | | | i |
| NITROFILIORENE 2- | 000607-57-8 | | | х | | | i |
| NITROGEN MUSTARD | 000051-75-2 | Ì | | x | | l x | i |
| NITROGEN MUSTARD HYDROCHI ORIDE | 000055-86-7 | 1 | | x | | l x | ï |
| NITROGEN MUSTARD N-OXIDE | 000126-85-2 | 1 | | x | | l x | i |
| | 000302-70-5 | 1 | | x | | l x | ï |
| NITROPYRENE 1- | 005522-43-0 | 1 | | x | | | i |
| NITROSODIETHYLAMINE N- | 000055-18-5 | 1 | | x | | | ľ |
| | 000062-75-9 | 1 | | x | | | ľ |
| NITROSODI-n-BLITYLAMINE N- | 000924-16-3 | 1 | | x | | | i |
| NITROSODI-n-PROPYLAMINE N- | 000621-64-7 | 1 | | x | | | ľ |
| | 000021047 | 1 | | x | | l İ | ľ |
| NITROSO-N-METHYLLIREA N- | 000684-93-5 | | | x | | l I | ľ |
| | 000100-75-4 | 1 | | x | | l İ | ľ |
| | 000100 75 4 | 1 | | x x | | | ľ |
| NITROTOLLIENE 2- | 000730-33-2 | 1 | l x | X | | l | ľ |
| NORETHISTERONE | 000068-22-4 | l l x | | x | | l | ľ |
| NORGESTREI | 000000-22-4 | | | Λ | | | ľ |
| | 000333-00-2 | | l v | | | | Ì |
| | 000434-07-1 | 1 | | | | | ľ |
| OZONE | 010028-15-6 | 1 | | x | | l I | ľ |
| PARAMETHADIONE | 000115-67-3 | 1 | l x | Л | | | I |
| PARATHION | 000056-38-2 | 1 | | x | | l I x | ľ |
| PCB (AROCLOR 1254) | 011097-69-1 | | | Л | | | ľ |
| PCB (AROCLOR 1264) | 011096-82-5 | 1 | | | | | ľ |
| | 002219-30-9 | 1 | l v | | | | ľ |
| PENTOSTATIN | 053910-25-1 | 1 | | x | | | ľ |
| PHENOBARBITAI | 000050-06-6 | 1 | l v | N V | | | ľ |
| | 000030-00-0 | l l v | | Λ | | | ľ |
| | 000002-92-3 | | l v | | | | ľ |
| | | 1 | | v | | | ľ |
| | 010270 00 7 | 1 | | N V | | | I. |
| | 010370-09-7 | 1 | | ^ | | | ľ |
| | 050526-65-1 | 1 | | | | l I v | I. |
| | 0070000000 | | | | v | | L |
| | 001330-30-3 007790 00 K | | | v | Λ | | Ľ |
| | 007770 EN 0 | 1 | | ۸ v | | | I. |
| | 001110-00-9 | | | X | | | I |

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- Key: F -- Fertility T -- Teratogens M -- Mutagens
- L -- Lactation
- SA -- Readily Absorbed Through the Skin

| CHEMICAL NAME | CAS # | F | T | М | L | SA |
|---|-------------|---------|---------|-------|---|----|
| PROCARBAZINE HYDROCHLORIDE | 000366-70-1 | | | X | | |
| PROGESTERONE | 000057-83-0 | i | | ~ | | |
| PROPANE SUI TONE, 1.3- | 001120-71-4 | i | | х | | x |
| PROPIOI ACTONE, BETA | 000057-57-8 | i | | x | | |
| PROPYLENE OXIDE | 000075-56-9 | i | | x | | x |
| PROPYLTHIOURACI | 000051-52-5 | i | l x l | x | | |
| RESERPINE | 000050-55-5 | i | x | ~ | | |
| RETINOIC ACID. 1.3-CIS- | 004759-48-2 | i | x | | | |
| RIBVARIN | 036791-04-5 | i | x | | | |
| RIFAMPIN | 013292-46-1 | i | | х | | |
| SAFROLE | 000094-59-7 | i | | Х | | |
| SODIUM AZIDE | 026628-22-8 | i | | Х | | x |
| SODIUM DICHROMATE | 010588-01-9 | İ | | х | | x |
| STERIGMATOCYSTIN | 010048-13-2 | i | | х | | i |
| STREPTOMYCIN SULFATE | 003801-74-0 | i | x I | | | i |
| STREPTOZOTOCIN | 018883-66-4 | İ | | х | | Í |
| STYRENE | 000100-42-5 | i | | х | | x |
| STYRENE-7,8-OXIDE | 000096-09-3 | i | | х | | x |
| SULINDAC | 038194-50-2 | İ | x | | | Í |
| TAMOXIFEN AND SALTS | 010540-29-1 | i | x | | | Í |
| TENIPOSIDE | 029767-20-2 | i | | х | | i |
| TESTOSTERONE CYPIONATE | 000058-20-8 | İ | x | | | İ |
| TESTOSTERONE ENANTHATE | 000315-37-7 | х | | | | Í |
| TETRACHLORODIBENZO-para-DIOXIN, 2,3,7,8- (TCDD) | 001746-01-6 | i | x | | | x |
| TETRACHLOROETHYLENE | 000127-18-4 | İ | İ | | х | x |
| TETRACYCLINES | 000060-54-8 | İ | x | | | i |
| TETRAETHYL LEAD | 000078-00-2 | İ | i | | | x |
| TETRAETHYLTHIURAM DISULFIDE | 000097-77-8 | İ | x | | | x |
| THALIDOMIDE | 000050-35-1 | İ | x | | | x |
| THIOACETAMIDE | 000062-55-5 | i | i | х | | i |
| THIOGUANINE | 000154-42-7 | İ | i | х | | İ |
| THIOTEPA | 000052-24-4 | İ | i | х | | İ |
| THIOURACIL | 000141-90-2 | i | i | х | | i |
| THIOUREA | 000062-56-6 | Ì | İ | х | | Í |
| TOBACCO SMOKE (NOT PASSIVE) | 000000-00-0 | x | x | | | Í |
| TOLUENE | 000108-88-3 | İ | x | х | | x |
| TOLUENE DIISOCYANATE, 1,3- | 026471-62-5 | Ì | | Х | | Í |
| TOXAPHENE (POLYCHLORINATED CAMPHENES) | 008001-35-2 | Ì | | Х | | X |
| TREOSULPHAN | 000299-75-2 | Ì | İ | Х | | Í |
| TRICHLOROETHYLENE | 000079-01-6 | | | Х | | İ |
| TRIMETHADIONE | 000127-48-0 | | X | | | Í |
| TRIPHENYLTIN HYDROXIDE | 000076-87-9 | | x | | | x |
| TRIS (2,3-DIBROMOPROPYLPHOSPHATE) | 000126-72-7 | | | | | X |

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revised: 11/2012

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|--|-------------|---------|-------------|---------|---|-----|
| CHEMICAL NAME | CAS # | F | T | M | L | SA |
| TRP-P-2(3-AMINO-1-METHYL-5H-PYRIDO[4,3-b]INDOLE) | 062450-06-0 | | | X | | |
| URETHANE | 000051-79-6 | i | İ | x | | i i |
| VALPROIC ACID | 000099-66-1 | i | x | | | i i |
| VINBLASTINE SULFATE | 000143-67-9 | i | İ | x | | i i |
| VINCRISTINE SULFATE | 002068-78-2 | i | İ | x | | i i |
| VINYL ACETATE | 000108-05-4 | i | İ | x | | i i |
| VINYL CHLORIDE | 000075-01-4 | X | İ | X | | İİ |
| WARAFIN | 000081-81-2 | ĺ | X | ĺ | | X |
| ZINC CHROMATE (VI) HYDROXIDE HYDRATE | 015930-94-6 | ĺ | | X | | |
| ZINC CHROMATE (VI)HYDROXIDE | 001300-73-8 | ĺ | Ì | X | | ÍÍ |

References:

California, State of, 2012. Chemicals Known to the State to Cause Cancer or Reproductive Toxicity (Proposition 65).

Shepard T.H., M.D., 1986. Catalog of Teratogenic Agents, 5th edition. The John Hopkins University Press, Baltimore.

Zenz, C., M.D., 1984. Reproductive Risks in the Workplace. National Safety News, September, p. 38-45.

Barlow, S.M., Sullivan, F.M., 1982. Reproductive Hazards on Industrial Chemicals. Academic Press, New York.

Paul M., M.D., Himmelstein, J., M.D., 1988. Reproductive hazards in the Workplace: What the Practioner Needs to Know About Chemical Exposures. Obstetrics and Gynecology, v. 71, p. 921-938.

Hemminki, K., 1980. Occupational Chemicals Tested for Teratogenicity. International Archives of Occupational and Environmental Health, v. 47, p. 191-207.

Plog, B.A. (ed), 1995. Fundamentals of Industrial Hygiene, Third Edition. National Safety Council.

Sax, N. I., 1999. Dangerous Properties of Industrial Materials .

U.S. Government Accounting Office, 1991. Reproductive and Developmental Toxicants . GAO/PEMD-92-3.

U.S. Occupational Safety and Health Administration, 2006. 29 CFR 1910.1000 Limits for Air Contaminants.

Sigma-Aldrich MSDS

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- L -- Lactation
- SA -- Readily Absorbed Through the Skin

| CHEMICAL NAME | CAS # | F | T | M | | SA |
|--|-------------|------------------|------------------|-------------|--|----------------|
| ANGIOTENSIN CONVERTING ENZYME (ACE) INHIBITORS | 000000-00-0 | | x | | | · · |
| BARBITURATES | 000000-00-0 | 1 | l x | | | · · |
| CHROMIUM, HEXAVALENT COMPOUNDS | 000000-00-0 | x | | l x | | |
| FTHYLENE GLYCOL ETHERS | 000000-00-0 | | l x | | | x |
| TOBACCO SMOKE (NOT PASSIVE) | 000000-00-0 | | l x | | | |
| FORMALDEHYDE | 000050-00-0 | | | l x | | x |
| PHENOBARBITAI | 000050-06-6 | 1 | l x | l x | | |
| MITOMYCIN C | 000050-07-7 | 1 | | l x | | |
| CYCLOPHOSPHAMIDE | 000050-18-0 | x | l x | l x | | x |
| DDT | 000050-29-3 | | | | | x x |
| BENZO[a]PYRENE | 000050-32-8 | | | l x | | |
| THALIDOMIDE | 000050-35-1 | 1 | l x | | | x |
| CI OMIPHENE CITRATE | 000050-41-9 | 1 | l x | l x | | |
| RESERVINE | 000050-55-5 | 1 | | | | I I |
| ACTINOMYCIN D | 000050-76-0 | 1 | | l x | | x |
| ASPRIN | 000050-78-2 | 1 | l x | | | |
| FLUOROURACI | 000051-21-8 | 1 | l x | l x | | |
| PROPYLTHIOURACI | 000051-52-5 | 1 | | | | |
| NITROGEN MUSTARD | 000051-75-2 | 1 | | l x | | x |
| LIRETHANE | 000051-79-6 | 1 | | l x | | |
| ТНЮТЕРА | 000052-24-4 | 1 | | l x | | · · |
| HALOPERIDOL | 000052-86-8 | 1 | l x | | | · · |
| DIBENZÍa hIANTHRACENE | 000053-70-3 | 1 | | l x | | · · |
| NICOTINE | 000054-11-5 | | l x | | | x I |
| AMINOPTERIN | 000054-62-6 | 1 | l x | | | |
| PIPOBROMAN | 000054-91-1 | Ì | | l x | | · · |
| NITROSODIETHYLAMINE.N- | 000055-18-5 | | Ì | x x | | |
| NITROGEN MUSTARD HYDROCHLORIDE | 000055-86-7 | i | Ì | l x | | x |
| BUTANEDIOL DIMETHANESULFONATE, 1.4- (BUSULFAN) | 000055-98-1 | x | x | l x | | |
| METHYLTHIOURACIL | 000056-04-2 | | l x | | | |
| PARATHION | 000056-38-2 | 1 | | l x | | x |
| DIFTHYLSTILBOESTROL | 000056-53-1 | x | l x | | | x |
| CHLORAMPHENICOL | 000056-75-7 | | | l x | | |
| DIMETHYI HYDRAZINE 11- | 000057-14-7 | 1 | | l x | | x |
| DIPHENYLHYDANTOIN | 000057-41-0 | | | x x | | |
| PHENYTOIN | 000057-41-0 | 1 | l x | | | · · |
| PROPIOI ACTONE. BETA | 000057-57-8 | 1 | | l x | | · · |
| CHLORDANE | 000057-74-9 | | | x x | | x |
| PROGESTERONE | 000057-83-0 | i | x I | ^ | | ^ |
| METHYLTESTOSTERONE | 000058-18-4 | i | x | | | , I |
| TESTOSTERONE CYPIONATE | 000058-20-8 | i | x x | | | , I |
| CHLORDIAZEPOXIDE | 000058-25-3 | ĺ | x | | | |

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| CHEMICAL NAME | CAS # | F | T | М | L | SA | |
|--|-------------|---------|---------|---|---|----------|---|
| HEXACHI OROBENZENE GAMMA | 000058-89-9 | | | | | | ľ |
| METHYLAMINOPTERIN | 000059-05-2 | i | l x | х | | | ï |
| BROMODEOXYURIDINE | 000059-14-3 | i | x x | x | | | i |
| NITROSOMORPHOLINE. N- | 000059-89-2 | i i | | x | | | i |
| LEVODOPA | 000059-92-7 | i | | Х | | | i |
| DIMETHYLAMINOAZOBENZENE, 4- | 000060-11-7 | i | | Х | | | i |
| METHYL HYDRAZINE | 000060-34-4 | i i | | X | | l x | i |
| TETRACYCLINES | 000060-54-8 | i | x | | | | i |
| METHIMAZOLE | 000060-56-0 | i | x x | х | | | i |
| ETHYL METHANESULPHONATE | 000062-50-0 | i i | | Х | | | i |
| THIOACETAMIDE | 000062-55-5 | i | | Х | | | i |
| THIOURFA | 000062-56-6 | i | | X | | | i |
| DICHLORVOS | 000062-73-7 | i | | Х | | x | i |
| NITROSODIMETHYLAMINE.N- | 000062-75-9 | i | | Х | | | i |
| PHENOXYBENZAMINE HYDROCHLORIDE | 000062-92-3 | x | | | | | i |
| NAPHTHYL METHYLCARBAMATE | 000063-25-2 | x | | х | | | i |
| DEMECLOCYCLINE HYDROCHLORIDE (INTERNAL USE) | 000064-73-3 | i | x | | | | i |
| COLCHICINE | 000064-86-8 | i | | х | | | i |
| METHYL METHANESULPHONATE | 000066-27-3 | i i | | Х | | | i |
| DICUMAROL | 000066-76-2 | i | l x | | | | i |
| CYCLOHEXIMIDE | 000066-81-9 | i | | х | | l x | i |
| CHLOROFORM | 000067-66-3 | İ | | Х | | | i |
| DIMETHYLFORMAMIDE | 000068-12-2 | i | | Х | | x | i |
| NORETHISTERONE | 000068-22-4 | x | | х | | | i |
| METHYL-N-NITRO-N'-NITROSOGUANIDINE.N- (MNNG) | 000070-25-7 | i | | х | | | i |
| BENZENE | 000071-43-2 | i | | х | | x | i |
| MEDROXYPROGESTERONE ACETATE | 000071-58-9 | i | x | х | | | i |
| DIGITOXIN | 000071-63-6 | İ | x | | | x | i |
| MESTRANOL | 000072-33-3 | x | | | | | i |
| METHYL BROMIDE | 000074-83-9 | i | | х | | x | i |
| METHYL CHLORIDE | 000074-87-3 | i | | х | | | i |
| VINYL CHLORIDE | 000075-01-4 | x | | х | | | i |
| DICHLOROMETHANE | 000075-09-2 | i | | х | | | i |
| CARBON DISULFIDE | 000075-15-0 | x | x | | | x | i |
| ETHYLENE OXIDE | 000075-21-8 | i | x | | | | i |
| BROMOPROPANE, 2- | 000075-26-3 | i | x | | | | i |
| BROMODICHLOROMETHANE | 000075-27-4 | i | | х | | | i |
| METHYLAZIRIDINE, 2- (PROPYLENEIMINE) | 000075-55-8 | i | | х | | x | i |
| PROPYLENE OXIDE | 000075-56-9 | i | | х | | x | i |
| DIMETHYL ARSENIC ACID | 000075-60-5 | i | x | | | | i |
| FLUOXYMESTERONE | 000076-43-7 | x | | | | | i |
| HEPTACHLOR | 000076-44-8 | i | i | Х | | x | i |
| TRIPHENYLTIN HYDROXIDE | 000076-87-9 | İ | X | | | X | İ |

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| DIMETHYL SULFATE 000077-78-1 | CHEMICAL NAME | CAS # | F | T | M | L | SA | |
|---|---|-------------|---------|----------|----------|---------|----------|---|
| TETRAETHYLLEAD 000078-00-2 I X X TRICHLOROETHYLENE 000079-06-1 X X I X DIMETHYLCARBAMOYL CHLORIDE 000079-06-1 X X I X DIMETHYLCARBAMOYL CHLORIDE 000079-04-7 X X I X DIN-BUTYL PATHALATE 000081-81-2 X I X I X DIN-HEXYL PHTHALATE 000084-75-3 X X I X I X DIN-BESYL PHTHALATE 000088-72-2 X X I X I X DINSEB 000088-75-3 X X I X I X DICHLOROBENZIDINE, 3.3- 000091-94-1 X X I X I X AdhotPHYLANINE, 2- 000092-67-1 X I X I X I X DICHLOROBENZIDINE, 3.3- 000091-94-1 X I X I X I X DAMINOTOLUENE, 2.4 000095-69-2 X I X I X | DIMETHYL SLILEATE | 000077-78-1 | | | | | x | ľ |
| TRICHLORGETHYLENE 000079-01-6 x x x x ACRYLAMIDE 000079-01-6 x x x x x ACRYLAMIDE 000079-41-7 x x x x x x OXYTETRACYCLINE AND COMPOUNDS (INTERNAL USE) 000079-57-2 x <td>TETRAETHYL I FAD</td> <td>000078-00-2</td> <td>1</td> <td> </td> <td></td> <td> </td> <td>l x</td> <td>i</td> | TETRAETHYL I FAD | 000078-00-2 | 1 | | | | l x | i |
| ACRYLANDE 000079-06-1 x x x x DIMETHYLCARRAMOVL CHLORIDE 000079-75-2 x x x x WARAFIN 000081-81-2 x x x x DINETHYLCARRAMOVL CHLORIDE 000079-75-2 x x x x DIN-BEXYL PHTHALATE 000081-75.3 x x x x x DIN-HEXYL PHTHALATE 000088-75.3 x x x x x NITROTOLUENE, 2- 000088-65.7 x x x x x DICHLOROBENZIDINE, 3.3- 000091-94.1 x x x x ALSAFT 000093-76-5 x x x x ALINODIPHENYL,4- 000095-80-7 x x x x AMINODIPHENYL,4- 000096-69-3 x x x x x DIAMINOTOLUENE, 2.4 000096-69-3 x x x x x CHLORO-O-TOLUIDINE, 4. 000096-69-3 x x x x DAMINOTOLUENE, 2 | | 000079-01-6 | | 1 | l x | 1 | | i |
| INDETHYLCARBAMOYL CHLORIDE 000079-44-7 I X I | ACRYLAMIDE | 000079-06-1 | 1 | l l x | l x | | l X | i |
| OXYTETRACVCLINE AND COMPOUNDS (INTERNAL USE) 000079-57-2 x x x DI-N-BUTYL PHTHALATE 000081-81-2 x x x x DI-N-BUTYL PHTHALATE 000084-75-3 x x x x x DI-N-BEXTYL PHTHALATE 000084-75-3 x x x x x DINOSEB 000088-75-3 x x x x x DINOSEB 000091-95-8 x x x x DICHLOROBENZIDINE, 3.3- 000091-96-5 x x x x AFROLE 000092-67-1 x x x x CHLORO-OTOLUIDINE, 4- 000095-69-2 x x x x DIAMINOTOLUENE, 2.4- 000095-83-0 x x x x CHLORO-OTOLUIDINE, 4- 000095-83-0 x x x x DIBROMO-3-CHLOROPROPANE, 1.2- 000096-12-8 x x x x DIBROMO-3-CHLOROPROPANE, 1.2- | | 000079-44-7 | | | l x | 1 | | i |
| WARAFIN No. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10 | OXYTETRACYCLINE AND COMPOLINDS (INTERNALLISE) | 000079-57-2 | | l x | | 1 | 1 | i |
| DI-N-BUTYL PHTHALATE 000084-74-2 x x x DI-N-HEXYL PHTHALATE 000084-75-3 x | WARAFIN | 000081-81-2 | 1 | | | | l x | i |
| D1.N.HEYYL PHTHALATE 000084753 x <td< td=""><td>DI-N-BUTYL PHTHALATE</td><td>000084-74-2</td><td></td><td></td><td> </td><td>1</td><td></td><td>i</td></td<> | DI-N-BUTYL PHTHALATE | 000084-74-2 | | | | 1 | | i |
| DIRTROTOLUENE, 2- 000088-722 X X X X DINOSEB 000088-85-7 X X X X NAPHTHYLAMINE, 2- 000091-59-8 X X X X DINOSEB 000091-59-8 X X X X AMINODIPHENYL,4- 000092-67-1 X X X X CHLORO-O-TOLUIDINE, 4- 000095-69-2 X X X X DIAMINOTOLUENE, 2.4- 000096-69-3 X X X X CHLORO-O-PHENYLENEDIAMINE,4- 000096-60-3 X X X X DIBROMO-3-CHLOROPROPANE,1.2- 000096-60-3 X X X X MONOCHLORO-1,2-PROPANEDION,3- 000097-76-8 X X X X ARSONIC ACID 000097-77-8 X X X X X AMINOAZOTOLUENE, N- 000100-42-5 X X X X X DIBROMO-3-CHLOROPOPANE, 1.2- 0000097-77-8 X X X X MINOAZOTOLUENE, ortho- 000 | DI-N-HEXYI PHTHALATE | 000084-75-3 | l x | | | 1 | 1 | i |
| ININOSED 0000081257 X X X NAPHTHYLAMINE, 2- 000091-59-8 X X X DICHLOROBENZIDINE, 3,3- 000091-94-1 X X X AMINODIPHENYL,4- 000092-67-1 X X X X 2,4,5-T 000093-76-5 X X X X CHLORO-OTOLUIDINE, 4- 000092-69-2 X X X X DIAMINOTOLUENE, 2,4- 000095-80-7 X X X X CHLORO-OTOLURE, 2,4- 000096-09-3 X X X X DIBROMO-3-CHLOROPROPANE,1,2- 000096-09-3 X X X X MONOCHLORO-1,2-PROPANEDION,3- 000096-24-2 X X X X AMINOAZOTOLUENE, ortho- 000097-77-8 X X X X AMINOAZOTOLUENE, N- 000100-44-7 X X X VALPROIC ACID 000100-47-7 X X X STYRENE 001100-75-4 X X X X BENZYL CHLORIDE <td< td=""><td>NITROTOLUENE 2-</td><td>000088-72-2</td><td></td><td></td><td>l x</td><td> </td><td>1</td><td>i</td></td<> | NITROTOLUENE 2- | 000088-72-2 | | | l x | | 1 | i |
| DIADACLE 000001-59-8 I X X DICHLOROBENZIDINE, 3,3- 000091-59-8 I X X AMINODIPHENYL,4- 000092-67-1 I X X 2,4,5-T 000093-65-5 I X I X CHLORO-O-TOLUIDINE, 4- 000094-59-7 I X I I DIAMINOTOLUENE, 2,4- 000095-80-7 I X I I DIBROMO-3-CHLORO-PHENYLENEDIAMINE,4- 000095-83-0 I X I I DIBROMO-3-CHLORO-PHENYLENEDIAMINE,4- 000096-09-3 I X I X DIBROMO-3-CHLORO-PROPANE,1,2- 000096-09-3 I X I X MINOACOTOLUENE, ortho- 000097-74-9 I X I X AMINOAZOTOLUENE, ortho- 000097-77-8 I X I X STYRENE 000100-42-5 I X I X BENZYL CHLORIDE 000109-77-8 I X I X NITROSOPIPERIDINE, N- 001100-75-4 I X I X EPICHLOROHYDRIN 000106-93-5 I X I X DICHLOROCHYDRIN 000106-93-4 I | DINOSEB | 000088-85-7 | | | | 1 | l X | i |
| DCHLOROBENZIDINE, 2,3- 0003719.94.1 X X AMINODIPHENYL,4- 000092.67.1 X X 2,4,5-T 000093.76.5 X X X SAFROLE 000094.59.7 X X X CHLORO-0-TOLUIDINE, 4- 000095.69.2 X X X DIAMINOTOLUENE, 2.4- 000095.80.7 X X X CHLORO-0-PHENYLENEDIAMINE,4- 000096.09.3 X X X DIBROMO-3-CHLOROPOPANE,1,2- 000096.09.3 X X X MINOACITOLUENE, ortho- 000097.56.3 X X X ARSONIC ACID 000097.56.3 X X X MINOAZOTOLUENE, ortho- 000097.77.8 X X X STYRENE 000100-44.7 X X X STYRENE 000100-44.7 X X X BROM2Y CHLORDHANINE 000100-75.4 X X X STYRENE 000100-75.4 X X X BROM2Y CHLORDHAN 000106.69.8 X X X <td>NAPHTHYLAMINE 2-</td> <td>0000000000</td> <td>1</td> <td></td> <td>l x</td> <td> </td> <td>l x</td> <td>ï</td> | NAPHTHYLAMINE 2- | 0000000000 | 1 | | l x | | l x | ï |
| DISINSULTION OF THE STATE STA | DICHLOROBENZIDINE 3.3- | 000091-94-1 | | 1 | | 1 | l x | ľ |
| AMMODIA TICTLE, Y 000093-76-5 X X X SAFROLE 000094-59-7 X X X X DIAMINOTOLUENE, 2.4 000095-69-2 X X X X DIAMINOTOLUENE, 2.4- 000095-83-0 X X X X DIBROMO-3-CHLOROPROPANE, 1.2- 000096-12-8 X X X X DIBROMO-3-CHLOROPROPANE, 1.2- 000097-54-3 X X X X MONOCHLORO-1.2-PROPANEDION, 3- 000097-54-3 X X X X ARSONIC ACID 000097-56-3 X X X X AMINOAZOTOLUENE, ortho- 000097-77-8 X X X VALPROIC ACID 000097-77-8 X X X VALPROIC ACID 000009-44-7 X X X VALPROIC ACID 000100-42-5 X X X STYRENE 000100-75-4 X X X X EPICHLOROHYDRIN 000106-89-8 X X X X EPICHLOROHYDRIN 00 | AMINODIPHENYI 4- | 000097-94-1 | 1 | 1 | l x | | l x | ï |
| AFROLE 000094-59-7 I X I I X CHLORO-O-TOLUIDINE, 4- 000095-69-2 I X I I DIAMINOTOLUENE, 2.4- 000095-80-7 I X I I CHLORO-O-PHENYLENEDIAMINE, 4- 000095-83-0 I X I X DIBROMO-3-CHLOROPROPANE, 1, 2- 000096-12-8 X I X I X MONOCHLORO-1, 2-PROPANEDION, 3- 000097-77-8 X I X I X ARSONIC ACID 000097-77-8 X I X I X AMINOAZOTOLUENE, ortho- 000097-77-8 X I X I X TETRAETHYLTHIURAM DISULFIDE 000100-75-4 I X I X I VALPROIC ACID 000100-75-4 I X I I X I STYRENE 000100-42-5 I X I I I I BENZYL CHLORIDE 000100-75-4 I X I I I VITROSOPIPERIDINE, N- | 2 4 5-T | 000093-76-5 | 1 | l I x | | | l x | ï |
| OHLORO-O-TOLUIDINE, 4- 000095-69-2 x x | SAFROI F | 000094-59-7 | | | l I x | 1 | | ľ |
| DIAMINO TOLUENE, 2,4- 000095,80-7 | CHLORO-O-TOLUIDINE 4- | 000094-69-7 | 1 | | | | 1 | i |
| DIAMING FOLCEL, 2.4 000095-83.0 I X I STYRENE-7,8-OXIDE 000096-09-3 I X I X DIBROMO-3-CHLOROPROPANE,1,2- 000096-12-8 X I X X MONOCHLORO-1,2-PROPANEDION,3- 000097-44-9 X X X X ARSONIC ACID 000097-63 I X X X AMINOAZOTOLUENE, ortho- 000097-66-3 I X X X VALPROIC ACID 000097-66-1 X X X X VALPROIC ACID 000097-77-8 X X X X VALPROIC ACID 000097-66-1 X X X X STYRENE 000100-44-7 X X X X BENZYL CHLORIDE 000100-69-8 I X X X NITROSOPIPERIDINE, N- 000106-89-8 I X X X EHYLENE DIBROMIDE 000106-93-4 X X X X X BROMOPROPANE, 1- 000107-02-8 X X X | DIAMINOTOLUENE 2.4- | 000075 07 2 | 1 | 1 | | 1 | 1 | i |
| ONLONG OF TRANSLENCE 000096-09-3 x x x DIBROMO-3-CHLOROPROPANE,1,2- 000096-24-2 x x x x MONOCHLORO-1,2-PROPANEDION,3- 000097-44-9 x x x x ARSONIC ACID 000097-56-3 x x x x x AMINOAZOTOLUENE,ortho- 000097-77-8 x x x x x VALPROIC ACID 000097-77-8 x x x x x x VALPROIC ACID 000097-77-8 x x x x x x x x x VALPROIC ACID 000097-77-8 x | | 000075-00-7 | 1 | | | | | ľ |
| DIBROMO-3-CHLOROPROPANE,1,2- 000096-12-8 x | STYRENE-7 8-OXIDE | 000075-05-0 | 1 | | | | l Iv | Ì |
| DIDINING SON DECIDION NOL NUCL, 1,2- 00007612-2 x x x MONOCHLORO-1,2-PROPANEDION,3- 000096-24-2 x x x ARSONIC ACID 000097-24-9 x x x AMINOAZOTOLUENE, ortho- 000097-56-3 x x x VALPROIC ACID 000097-77-8 x x x VALPROIC ACID 000097-66-1 x x x STYRENE 000100-42-5 x x x BENZYL CHLORIDE 000100-44-7 x x x NITROSOPIPERIDINE, N- 000106-89-8 x x x ETHYLENE DIBROMIDE 000106-93-4 x x x BROMOPROPANE, 1- 000107-02-8 x x x ACRULEIN 000107-02-8 x x x DICHLOROETHANE, 1,2- 000107-02-2 x x x ACRYLONITRILE 000107-03-2 x x x VINYL ACETATE 000108-05-4 x x x PARAMETHADIONE 000115-67-3 x | DIBROMO 3 -CHI OROPROPANE 1 2 | 000070-07-3 | v | | | | | Ì |
| INDICOLOGIO 1, 2 FROMALEDON, 3 000007-24-2 x x x x x ARSONIC ACID 000097-44-9 x x x x x x AMINOAZOTOLUENE, ortho- 000097-56-3 x x x x x x VALPROIC ACID 000097-66-1 x x x x x x STYRENE 000100-42-5 x x x x x x BENZYL CHLORIDE 000100-44-7 x x x x x x NITROSOPIPERIDINE, N- 000100-75-4 x x x x x x ETHYLENE DIBROMIDE 000106-89-8 x x x x x x BROMOPROPANE, 1- 000106-94-5 x x x x x x DICHLOROETHANE, 1,2- 000107-06-2 x x x x x ACRYLONITRILE 000107-03-2 x x x x x x DICHLOROETHANE, 1,2- 000107-03-2 | | 000070-12-0 | | l Iv | l Iv | | | I |
| ANINOAZOTOLUENE, ortho- 000097-56-3 x x x x x x x x | | 000070-24-2 | 1 | | | 1 | | i |
| AMMIOALEO IOLENLI, MID 000077-30-3 I | | 000077 44 7 | 1 | | l Iv | | | i |
| VALPROIC ACID 000099-66-1 x x x STYRENE 00010-42-5 x x x BENZYL CHLORIDE 000100-44-7 x x x NITROSOPIPERIDINE, N- 000100-75-4 x x x EPICHLOROHYDRIN 000106-89-8 x x x x ETHYLENE DIBROMIDE 000106-93-4 x x x x BROMOPROPANE, 1- 000106-94-5 x x x x ACROLEIN 000107-06-2 x x x x DICHLOROETHANE, 1,2- 000107-06-2 x x x x CHLOROMETHYL METHYL ETHER 000107-30-2 x x x x VINYL ACETATE 000108-88-3 x x x x VINYL ACETATE 000108-88-3 x x x x VINYL ACETATE 000108-88-3 x x x x ENDOSULFAN 000115-29-7 x x x x ANISINDIONE 000117-37-3 x </td <td></td> <td>000077 30 3</td> <td>1</td> <td>l I x</td> <td></td> <td> </td> <td>l I x</td> <td>Ì</td> | | 000077 30 3 | 1 | l I x | | | l I x | Ì |
| STYRENE 00017-03-1 x x x BENZYL CHLORIDE 000100-42-5 x x x NITROSOPIPERIDINE, N- 00100-75-4 x x x EPICHLOROHYDRIN 000106-89-8 x x x ETHYLENE DIBROMIDE 000106-93-4 x x x x BROMOPROPANE, 1- 000106-93-4 x x x x ACROLEIN 000107-02-8 x x x x DICHLOROETHANE, 1,2- 000107-06-2 x x x x CHLOROMETHYL METHYL ETHER 000107-03-2 x x x x VINYL ACETATE 000108-05-4 x x x x VINYL ACETATE 000108-05-4 x x x x VINYL ACETATE 000108-05-4 x x x x PARAMETHADIONE 000115-29-7 x x x x ANISINDIONE 000117-37-3 x x x x DIOCTYL PHTHALATE 000117-31-7 | | 000099-66-1 | 1 | | | | | ï |
| BENZYL CHLORIDE 000100-44-7 x x x x NITROSOPIPERIDINE, N- 000100-75-4 x x x x EPICHLOROHYDRIN 000106-89-8 x x x x ETHYLENE DIBROMIDE 000106-93-4 x x x x BROMOPROPANE, 1- 000106-94-5 x x x x ACROLEIN 000107-02-8 x x x x DICHLOROETHANE, 1,2- 000107-06-2 x x x x ACRYLONITRILE 000107-03-2 x x x x CHLOROMETHYL METHYL ETHER 000107-30-2 x x x VINYL ACETATE 000108-05-4 x x x TOLUENE 000108-05-4 x x x ENDOSULFAN 000115-29-7 x x x PARAMETHADIONE 000117-37-3 x x x DIOCTYL PHTHALATE 000117-81-7 x x x HEXACHI OROBENZENF 000118-74-1 x x | STYRENE | 000100-42-5 | 1 | | l x | | l I x | ï |
| Dictional Construction 000100-75-4 1 | BENZYL CHLORIDE | 000100-44-7 | 1 | l x | | | | i |
| EPICHLOROHYDRIN 000106-89-8 x x x x x x < | | 000100-75-4 | | | l x | 1 | 1 | i |
| ETHYLENE DIBROMIDE 000106-93-4 x <td< td=""><td>EPICHI OROHYDRIN</td><td>000106-89-8</td><td>1</td><td>1</td><td>l x</td><td> </td><td>l x</td><td>i</td></td<> | EPICHI OROHYDRIN | 000106-89-8 | 1 | 1 | l x | | l x | i |
| BROMOPROPANE, 1- 000106-94-5 x | ETHYLENE DIBROMIDE | 000106-93-4 | x | l x | l x | | l x | i |
| ACROLEIN 000107-02-8 | BROMOPROPANE 1- | 000106-94-5 | | | | 1 | | i |
| DICHLOROETHANE, 1,2- 000107-06-2 < | ACROLEIN | 000107-02-8 | 1 | | l x | | l x | i |
| ACRYLONITRILE 000107-13-1 <td>DICHLOROFTHANE 1.2-</td> <td>000107-06-2</td> <td>1</td> <td> </td> <td>l x</td> <td> </td> <td>l x</td> <td>i</td> | DICHLOROFTHANE 1.2- | 000107-06-2 | 1 | | l x | | l x | i |
| CHLOROMETHYL METHYL ETHER 000107-30-2 | ACRYLONITRII F | 000107-13-1 | 1 | | l x | | l x | i |
| VINYL ACETATE 000108-05-4 <td>CHLOROMETHYL METHYL ETHER</td> <td>000107-30-2</td> <td>1</td> <td> </td> <td>l x</td> <td> </td> <td></td> <td>i</td> | CHLOROMETHYL METHYL ETHER | 000107-30-2 | 1 | | l x | | | i |
| TOLUENE 000108-88-3 x x x x ENDOSULFAN 000115-29-7 x x x PARAMETHADIONE 000117-37-3 x ANISINDIONE 000117-81-7 x HEXACHLOROBENZENE 000118-74-1 | VINYLACETATE | 000108-05-4 | | 1 | l x | 1 | 1 | i |
| ENDOSULFAN 000115-29-7 | TOLLIENE | 000108-88-3 | | l l x | l x | 1 | l X | i |
| PARAMETHADIONE 000115-67-3 x ANISINDIONE 000117-37-3 x DIOCTYL PHTHALATE 000117-81-7 x HEXACHLOROBENZENE 000118-74-1 x x | ENDOSULEAN | 000100 00 3 | | | | 1 | l x | i |
| ANISINDIONE 000117-37-3 x DIOCTYL PHTHALATE 000117-81-7 x HEXACHLOROBENZENE 000118-74-1 x | PARAMETHADIONE | 000115-67-3 | | x | | | | 1 |
| DIOCTYL PHTHALATE 000117-81-7 x HEXACHLOROBENZENE 000118-74-1 x | ANISINDIONE | 000117-37-3 | | | | | | 1 |
| HEXACHI OROBENZENE 000118-74-1 x x | DIOCTYL PHTHALATE | 000117-81-7 | | | l x | | | 1 |
| | HEXACHLOROBENZENE | 000118-74-1 | i | | | x | x | ľ |

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- Key: F -- Fertility T -- Teratogens M -- Mutagens
- L -- Lactation
- SA -- Readily Absorbed Through the Skin

| CHEMICAL NAME | CAS # | F | T | M | L | SA | |
|--|-------------|---------|---|------|---|----------|---|
| DINITROTOLUENE. 2.4- | 000121-14-2 | | | | | | |
| METHYLARSONIC ACID | 000124-58-3 | | x | | | | i |
| AMINOGLUTETHIMIDE | 000125-84-8 | | x | | | x | İ |
| GRISEOFULVIN | 000126-07-8 | ĺ | | x | | | i |
| DIBROMOPROPYL (2,3) PHOSPHATE | 000126-72-7 | ĺ | | x | | x | 1 |
| TRIS (2,3-DIBROMOPROPYLPHOSPHATE) | 000126-72-7 | ĺ | | i i | | x | 1 |
| NITROGEN MUSTARD N-OXIDE | 000126-85-2 | İ | | x | | x | 1 |
| CHLOROPRENE | 000126-99-8 | x I | x | x | | x x | 1 |
| HYDROXYUREA | 000127-07-1 | İ | x | i i | | | 1 |
| TETRACHLOROETHYLENE | 000127-18-4 | İ | | i i | х | x | 1 |
| DIMETHYLACETAMIDE, N,N- | 000127-19-5 | İ | x | i i | | x | l |
| TRIMETHADIONE | 000127-48-0 | İ | x | i i | | İ | 1 |
| THIOURACIL | 000141-90-2 | İ | | x | | İ | |
| KEPONE (CHLORDECONE) | 000143-50-0 | x | | i i | | x | |
| VINBLASTINE SULFATE | 000143-67-9 | İ | | x | | İ | |
| CYTARABINE | 000147-94-4 | İ | х | i i | | İ | |
| MELPHALAN | 000148-82-3 | x | | i i | | İ | |
| ETHYLHEXANOIC ACID | 000149-57-5 | İ | x | i i | | x | |
| AZIRIDINE | 000151-56-4 | İ | | i i | | x | |
| HALOTHANE | 000151-67-7 | İ | x | Í | | ĺ | |
| THIOGUANINE | 000154-42-7 | İ | | x | | ĺ | |
| BISCHLOROETHYL NITROSOUREA (BCNU) | 000154-93-8 | ĺ | | x | | | |
| CARBAMAZEPINE | 000298-46-4 | ĺ | х | Í | | | |
| DIMETHANESULFONATE, 1,4- | 000299-75-2 | | X | | | | |
| TREOSULPHAN | 000299-75-2 | | | X | | | |
| LEAD ACETATE | 000301-04-2 | X | X | X | Х | | |
| HYDRAZINE | 000302-01-2 | | | X | | X | |
| NITROGEN MUSTARD N-OXIDE HYDROCHLORIDE | 000302-70-5 | | | X | | X | |
| ALL-TRANS RETINOIC ACID | 000302-79-4 | | Х | X | | X | |
| LASIOCARPINE | 000303-34-4 | | | X | | | |
| GOSSYPOL | 000303-45-7 | X | | X | | | |
| CHLORAMBUCIL | 000305-03-3 | | X | | | | |
| MONOCROTALINE | 000315-22-0 | | | X | | | |
| TESTOSTERONE ENANTHATE | 000315-37-7 | X | | | | | |
| LINURON | 000330-55-2 | | X | | | | |
| PROCARBAZINE HYDROCHLORIDE | 000366-70-1 | | X | X | | | |
| ERGOTAMINE TARTRATE | 000379-79-3 | | | X | | | l |
| OXYMETHOLONE | 000434-07-1 | | X | | | | l |
| CHLORDIAZEPOXIDE HYDROCHLORIDE | 000438-41-5 | | X | | | | l |
| DIAZEPAM | 000439-14-5 | | Х | | | X | l |
| METRONIDAZOLE | 000443-48-1 | | | X | | | l |
| METRONIDIZOL | 000443-81-1 | | | X | | | l |
| AZATHIOPRINE | 000446-86-6 | | | X | | | l |

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| CHEMICAL NAME | CAS # | F | T | M | L | SA | |
|---|-------------|---------|----------|-------|---------|----------|---|
| ALIRAMINE | 000492-80-8 | | | | | | I |
| MUSTARD GAS (SUI PHUR MUSTARD) | 000505-60-2 | | | | | l x | i |
| CADMILIM CARBONATE | 000513-78-0 | l x | l x | | | | i |
| FTHIONAMIDE | 000536-33-4 | | | | | | i |
| DIMETHYL HYDRAZINE 1.2- | 000540-73-8 | i i | | l x l | | l x | i |
| CHLOROMETHYL ETHER BIS- | 000542-88-1 | Ì | | | | l x | i |
| ACETOHYDROXAMIC ACID | 000546-88-3 | 1 | l l x | | | l x | i |
| GLYCIDOI | 000556-52-5 | Ì | | l x l | | l x | i |
| CHLORO-2-METHYLPROPENE 3- | 000563-47-3 | i i | 1 | | | | i |
| DOXYCYCLINE AND COMPOUNDS (INTERNAL LISE) | 000564-25-0 | 1 | | | | 1 | i |
| METHYL AZOXYMETHYL ACETATE | 000592-84-7 | i i | 1 | | | 1 | i |
| DIMETHYL MERCURY | 000593-74-8 | i i | 1 | | | l x | i |
| METHYLDICHLOROARSINE | 000593-89-5 | i | x | | | l x | i |
| MEGESTROL ACETATE | 000595-33-5 | l x | | | | | i |
| DINITROTOLLIENE 26- | 000606-20-2 | | | l x l | | l x | i |
| NITROFI LIORENE 2- | 000607-57-8 | i | | | | | i |
| DIAMINOANISOLE 24- (AND ITS SALTS) | 000615-05-4 | | | | | | i |
| NITROSODI-n-PROPYLAMINE N- | 000621-64-7 | i i | | | | | i |
| CARBON MONOXIDE | 000630-08-0 | 1 | x | | | 1 | i |
| AMANTADINE HYDROCHI ORIDE | 000665-66-7 | i i | | | | l x | i |
| HEXAMETHYI PHOSPHORAMIDE | 000680-31-9 | i i | | l x l | | l x | i |
| METHYL-N-NITROSOLIREA N- | 000684-93-5 | 1 | | | | | İ |
| NITROSO-N-METHYLUREA N- | 000684-93-5 | i i | | | | | i |
| FTHYL-N-NITROSOURFA N- | 000759-73-9 | i i | | | | | i |
| IORAZEPAM | 000846-49-1 | 1 | l x | | | | i |
| NITROSODI-n-BLITYLAMINE N- | 000924-16-3 | | | l x l | | | i |
| NITROSOPYRROI IDINE N- | 000930-55-2 | | | | | | i |
| HEPTACHI OR EPOXIDE | 001024-57-3 | | | x x | | l x | i |
| PROPANE SUITONE 1.3- | 001120-71-4 | | | | | l x | i |
| FTHIDIUM BROMIDE | 001239-45-8 | | | | | | i |
| ZINC CHROMATE (VI)HYDROXIDE | 001300-73-8 | | | | | | i |
| ARSENIC PENTOXIDE | 001303-28-2 | | x | | | | i |
| CADMIUM OXIDE | 001306-19-0 | x | | x I | | | i |
| CADMIUM SULFIDE | 001306-23-6 | | x | x I | | l | i |
| ARSENIC TRIOXIDE | 001327-53-3 | | X | | | | i |
| FOWLER'S SOLUTION | 001332-10-1 | | | | | | i |
| POLYCHLORINATED BIPHENYLS | 001336-36-3 | x | x | | x | l x | i |
| DIFPOXYBUTANE | 001464-53-5 | | | l x l | | x | i |
| BROMOXYNII | 001689-84-5 | | x | | | x | i |
| BROMOXYNIL OCTANOATE | 001689-99-2 | | x | | | x | ľ |
| TETRACHLORODIBENZO-para-DIOXIN. 2.3.7.8- (TCDD) | 001746-01-6 | | x | | | x | ľ |
| VINCRISTINE SULFATE | 002068-78-2 | ĺ | | x I | | | i |
| PENICILLAMINE | 002219-30-9 | ĺ | X | | | İ | i |

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|---|-------------|---------|----------|---------|---------|----------|---|
| CHEMICAL NAME | CAS # | F | T | M | L | SA | |
| MIREX | 002385-85-5 | x | | | | | |
| DIBROMOACETONITRII E | 003252-43-5 | | 1 | l x | | x | i |
| FURYLAMIDE | 003688-53-7 | i | 1 | x x | | | i |
| IFOSEAMIDE | 003778-73-2 | i | 1 | | | i | i |
| STREPTOMYCIN SUI FATE | 003801-74-0 | i | l l x | | | Ì | i |
| ISOTRETINOIN | 003001740 | | | l x | l I | 1 | ł |
| | 004759-48-2 | | | | | 1 | ł |
| CHIORDANE AI PHA | 005103-71-9 | | | l v | | l Iv | ł |
| | | | 1 | | | | ł |
| | 005105-74-2 | | v | | | | ł |
| | 005411-22-3 | | | | | | - |
| | 005522-45-0 | | | | | | ł |
| | 005534-09-8 | X | | | | | ł |
| | | | | | | | - |
| | 006055-19-2 | | | | | X | ļ |
| | 006085-56-4 | X | X | X | X | | ļ |
| NURGESTREL | 006533-00-2 | X | | | | ļ | ļ |
| LEAD AND COMPOUNDS | 007439-92-1 | X | X | X | X | ļ | ļ |
| LITHIUM AND COMPOUNDS | 00/439-93-2 | | X | | | | ļ |
| MERCURY AND COMPOUNDS | 00/439-9/-6 | X | X | | | X | ļ |
| ARSENIC AND COMPOUNDS | 007440-38-2 | | X | | | X | |
| CADMIUM AND COMPOUNDS | 007440-43-9 | X | X | X | | | |
| LEAD PHOSPHATE | 007446-27-7 | X | X | X | X | | |
| ARSENIC ACID, SODIUM SALT | 007631-89-2 | | X | | | X | |
| ARSENIC ACID | 007778-39-4 | | X | | | X | |
| ARSENIC ACID, CALCIUM SALT (2:3) | 007778-44-1 | | X | | | X | |
| POTASSIUM DICHROMATE (VI) | 007778-50-9 | | | X | | | |
| ARSENIC TRICHLORIDE | 007784-34-1 | | X | | | | |
| ARSENIC PENTAFLUORIDE | 007784-36-3 | | X | | | | |
| ARSENIC ACID, LEAD(2+) SALT (1:1) | 007784-40-9 | | X | | | X | |
| ARSENIC ACID, MONOPOTASSIUM SALT | 007784-41-0 | Ì | X | | | X | Ì |
| ARSINE | 007784-42-1 | Ì | X | | | X | Ì |
| ARSENIUOS ACID, MONOSODIUM SALT | 007784-46-5 | İ | x | İ | İ | j x | İ |
| POTASSIUM CHROMATE (VI) | 007789-00-6 | i | İ | x | İ | i | i |
| TOXAPHENE (POLYCHLORINATED CAMPHENES) | 008001-35-2 | i | ĺ | x | İ | İ x | i |
| ETHYLENEIMINE | 009002-98-6 | i | Ì | x | | İ x | i |
| OZONE | 010028-15-6 | i | Ì | x | ĺ | i | i |
| HYDRAZINE SULEATE (1:1) | 010034-93-2 | i | | x I | | x | i |
| STERIGMATOCYSTIN | 010048-13-2 | i | | l x | | | i |
| ARSENIC ACID DISODIUM SALT HEPTAHYDRATE | 010048-95-0 | i | l x | | | x | i |
| CADMILIM CHLORIDE | 010108-64-2 | x | | x | | | |
| CADMILIM SULFATE (1.1) | 010124-36-4 | | X | | | | |
| ARSENEOUS ACID POTASSIUM SALT | 010124-50-4 | | X | | | x | |
| | 010325-94-7 | x | X | l y | | | 1 |
| | 010020717 | 1 1 | 1 1 | | I | 1 | 1 |

- Key: F -- Fertility T -- Teratogens M -- Mutagens
- L -- Lactation
- SA -- Readily Absorbed Through the Skin

| CHEMICAL NAME | CAS # | F | T | M | L | SA | |
|--|-------------|---------|---------|---------|---------|----------|---|
| TAMOXIFEN AND SALTS | 010540-29-1 | | | | | | l |
| SODIUM DICHROMATE | 010588-01-9 | | | l x | | l x | i |
| PCB (AROCI OR 1260) | 011096-82-5 | | | | | l x | í |
| PCB (AROCLOR 1254) | 011097-69-1 | | | | | x x | í |
| NICKEL SULFIDE (3:2) | 012035-72-2 | ĺ | | x | | | ĺ |
| RIFAMPIN | 013292-46-1 | Ì | | l x | | | i |
| CADMIUM FLUOBORATE | 014486-19-2 | x | l x | x x | | | í |
| METHOTREXATE SODIUM | 015475-56-6 | | | x | | | ĺ |
| CISPLATIN | 015663-27-1 | Ì | | l x | | | i |
| ZINC CHROMATE (VI) HYDROXIDE HYDRATE | 015930-94-6 | Ì | | x | | | Í |
| DANAZOL | 017230-88-5 | x | | | | | ĺ |
| BENOMYI | 017804-35-2 | | l x | l x | | l x | i |
| PLICAMYCIN | 018378-89-7 | | | x | | | ĺ |
| LEAD CHROMATE (VI) OXIDE | 018454-12-1 | x | x | x | x | | Ì |
| STREPTOZOTOCIN | 018883-66-4 | | | x | | | ĺ |
| DAUNOMYCIN | 020830-81-3 | Ì | | x | | | Í |
| NIFEDIPINE | 021829-25-4 | i | x | İ | | | Ì |
| DIFLUNISAL | 022494-42-4 | Ì | l x | | | | Ì |
| METHYL MERCURY AND COMPOUNDS | 022967-92-6 | i | | ĺ | x | x | ĺ |
| DOXORUBICIN HYDROCHLORIDE (ADRIAMYCIN) | 023214-92-8 | Ì | | x | | | Ì |
| CLOBETASOL PROPIONATE | 025122-46-7 | i | x | İ | | | Ì |
| TOLUENE DIISOCYANATE, 1,3- | 026471-62-5 | İ | | x | | | Ì |
| SODIUM AZIDE | 026628-22-8 | i | | x | | x | Ì |
| ARSENEOUS ACID, CALCIUM SALT | 027152-57-4 | i | x | İ | | x | Ì |
| ARSENIUOS ACID, CALCIUM SALT | 027152-57-4 | İ | x | | | x | Ĺ |
| ALPRAZOMAN | 028981-97-7 | i | x | | | x | Ĺ |
| ATENOLO | 029122-68-7 | i | x | ĺ | | x | Ĺ |
| TENIPOSIDE | 029767-20-2 | İ | | x | | | Ĺ |
| MEBENDAZOLE | 031431-39-7 | i | | x | | | Ĺ |
| ETOPOSIDE | 033419-42-0 | i | | x | | | Ĺ |
| AURANOFIN | 034031-32-8 | i | | x | | | Ĺ |
| RIBVARIN | 036791-04-5 | i | x x | İ | | | Ĺ |
| SULINDAC | 038194-50-2 | İ | x | İ | | | Ĺ |
| CARBOPLATIN | 041575-94-4 | i | x x | İ | | x | Ĺ |
| DINITROPYRENE, 1,6- | 042397-64-8 | i | | x | | | Ĺ |
| DINITROPYRENE, 1,8- | 042397-65-9 | İ | | x | | | Ĺ |
| ARSONIC ACID, CALCIUM SALT (1:1) | 052740-16-6 | i | x | İ | | x | Ĺ |
| PENTOSTATIN | 053910-25-1 | i | | x | | | Ĺ |
| ETRETINATE | 054350-48-0 | i | | x | | | Ĺ |
| CLORAZEPATE DIPOTASSIUM | 057109-90-7 | i | x | | | | ĺ |
| IDARUBICIN HYDROCHLORIDE | 057852-57-0 | i | x | x | | | Ĺ |
| MISOPROSTOL | 059122-46-2 | i | x | İ | | | ĺ |
| POLYBROMINATED BIPHENYLS | 059536-65-1 | İ | x | | | x | ĺ |

- ---- - ---- - ---- -

Key:

- F -- Fertility
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- M -- Mutagens
- L -- Lactation
- SA -- Readily Absorbed Through the Skin

revised: 11/2012

| CHEMICAL NAME | CAS # | F | T | M | L | SA |
|--|-------------|---------|---------|---------|---------|---------|
| CYCLOSPORIN A | 059865-13-3 | X | X | | | X |
| TRP-P-2(3-AMINO-1-METHYL-5H-PYRIDO[4,3-b]INDOLE) | 062450-06-0 | İ | İ | x | İ | i i |
| GLU-P-2(2-AMINODIPYRIDO[1,2-A:3',2'-D]IMIDAZOLE) | 067730-10-3 | İ | İ | x | İ | i i |
| GLU-P-1 (2-AMINO-6-METHYLDIPYRIDO[1,2-a:3',2'-d]IMIDAZOLE) | 067730-11-4 | İ | İ | x | İ | i i |
| POLYBROMINATED BIPHENYL (FF-1) | 067774-32-7 | Ì | x | ĺ | ĺ | İİ |
| MITOXANTRONE HYDROCHLORIDE | 070476-82-3 | Ì | ĺ | x | ĺ | X |
| CYCLOSPORIN | 079217-60-0 | X | x | İ | İ | x |
| GANCICLOVIR | 082410-32-0 | Ì | x | x | ĺ | İİ |
| MYCLOBUTANIL | 088671-89-0 | Ì | x | ĺ | ĺ | İİ |
| GANCICLOVIR SODIUM | 107910-75-8 | İ | x | x | ĺ | i i |

References:

California, State of, 2012. Chemicals Known to the State to Cause Cancer or Reproductive Toxicity (Proposition 65).

Shepard T.H., M.D., 1986. Catalog of Teratogenic Agents, 5th edition. The John Hopkins University Press, Baltimore.

Zenz, C., M.D., 1984. Reproductive Risks in the Workplace. National Safety News, September, p. 38-45.

Barlow, S.M., Sullivan, F.M., 1982. Reproductive Hazards on Industrial Chemicals. Academic Press, New York.

Paul M., M.D., Himmelstein, J., M.D., 1988. Reproductive hazards in the Workplace: What the Practioner Needs to Know About Chemical Exposures. Obstetrics and Gynecology, v. 71, p. 921-938.

Hemminki, K., 1980. Occupational Chemicals Tested for Teratogenicity. International Archives of Occupational and Environmental Health, v. 47, p. 191-207.

Plog, B.A. (ed), 1995. Fundamentals of Industrial Hygiene, Third Edition. National Safety Council.

Sax, N. I., 1999. Dangerous Properties of Industrial Materials .

U.S. Government Accounting Office, 1991. Reproductive and Developmental Toxicants . GAO/PEMD-92-3.

U.S. Occupational Safety and Health Administration, 2006. 29 CFR 1910.1000 Limits for Air Contaminants.

Sigma-Aldrich MSDS

APPENDIX 5-E

Cole Science Center

Select Carcinogens (Known or Suspected Human Carcinogens)

Key: IARC (INTERNATIONAL AGENCY FOR RESEARCH ON CANCER) 1 -- CARCINOGENIC TO HUMANS

2A -- PROBABLY CARCINOGENIC TO HUMANS

2B -- POSSIBLY CARCINOGENIC TO HUMANS "s" - readily absorbed through the skin NTP (NATIONAL TOXICOLOGY PROGRAM) A -- KNOWN TO BE CARCINOGENS B -- REASONABLY ANTICIPATED TO BE CARCINOGENS

| CHEMICAL NAME | | | 1 1 | IARC | 210 | NTE | , |
|---|-------------|----|------------|------|------------|----------|-------------------------|
| CHEMICAL NAME | CAS # | | 1 | ZA Z | 2В | A | в |
| | | · | ' <u> </u> | | | · | |
| ACETALDEHYDE | | | | | <u>x</u> | I | $\overline{\mathbf{x}}$ |
| ACETAMIDE | 000060-35-5 | 1 | i | | x | 1 | |
| ACETYLAMINOFLUORENE.2- | 000053-96-3 | X | i i | - | | 1 | х |
| ACID MISTS, STRONG INORGANIC | 00000-00-0 | 1 | ' X | | | | |
| ACRYLAMIDE "s" | 000079-06-1 | 1 | 1 | Х | | 1 | Х |
| ACRYLONITRILE "s" | 000107-13-1 | X | i | 3 | Х | i | Х |
| ADRIAMYCIN | 025316-40-9 | İ | i | Х | | i | Х |
| AFLATOXIN B1 | 001162-65-8 | İ | X | | | İ | |
| AFLATOXIN M1 | 006795-23-9 | Ì | Í. | 2 | Х | | |
| AFLATOXINS | 001402-68-2 | İ | X | | | X | |
| AMINO-2,4-DIBROMOANTHRAQUINONE,1- | 000081-49-2 | Ì | Í. | 3 | Х | | Х |
| AMINO-2-METHYLANTHRAQUINONE, 1- | 000082-28-0 | Ì | Í. | | | | Х |
| AMINO-3,4-DIMETHYL-3h-IMIDAZO(4,5f)QUINOLINE,2- | 077094-11-2 | 1 | Í. | 2 | Х | | Х |
| AMINO-3,8-DIMETHYL-3H-IMIDAZO(4,5-f)QUINOXALINE, 2- | 077500-04-0 | | | 2 | Х | | Х |
| AMINO-5-(5-NITRO-2-FURYL)-1,3,4-THIADIAZOLE, 2- | 000712-68-5 | | | 2 | Х | | |
| AMINOANTHRAQUINONE, 2- | 000117-79-3 | | | | | | Х |
| AMINOAZOBENZENE,para- | 000060-09-3 | | | 3 | Х | | |
| AMINOAZOTOLUENE, or tho- | 000097-56-3 | | | 3 | Х | | Х |
| AMINOBIPHENYL,4- "s" | 000092-67-1 | X | X | | | X | |
| AMITROLE | 000061-82-5 | | | | | | Х |
| AMMONIUM DICHROMATE (VI) "s" | 007789-09-5 | | X | | | X | |
| AMSACRINE | 051264-14-3 | | | 2 | Х | | |
| ANISIDINE HYDROCHLORIDE, o- | 000134-29-2 | | | | | | Х |
| ANISIDINE, ortho- "s" | 000090-04-0 | | | 2 | Х | | |
| ANTHRAQUINONE, 1,8-DIHYDROXY | 000117-10-2 | | | 2 | Х | | Х |
| ARAMITE | 000140-57-8 | | | 2 | Х | | |
| ARECA NUT | 000000-00-0 | | X | | | | |
| ARISTOLOCHIC ACIDS | 000000-00-0 | | X | | | X | |
| ARSENEOUS ACID, CALCIUM SALT | 027152-57-4 | X | X | | | X | |
| ARSENEOUS ACID, POTASSIUM SALT | 010124-50-2 | X | X | | | X | |
| ARSENIC ACID | 007778-39-4 | X | X | | | X | |
| ARSENIC ACID, CALCIUM SALT (2:3) | 007778-44-1 | X | X | | | X | |
| ARSENIC ACID, DISODIUM SALT, HEPTAHYDRATE | 010048-95-0 | X | X | | | X | |
| ARSENIC ACID, LEAD(2+) SALT (1:1) | 007784-40-9 | X | X | | | X | |
| ARSENIC ACID, MONOPOTASSIUM SALT | 007/84-41-0 | X | | | | X | |
| ARSENIC ACID, SODIUM SALT | 007631-89-2 | X | | | | X | |
| ARSENIC AND COMPOUNDS | 007440-38-2 | | | | | | |
| ARSENIC PENTAFLUORIDE | 007/84-36-3 | | | | | | |
| ARSENIC PENTOXIDE | 001303-28-2 | | | | | | |
| ARSENIC TRICHLORIDE "S" | 007/84-34-1 | | | | | | |
| ARSENIC I KIUAIDE | 001327-53-5 | | | | | | |
| ARSENIOUS ACID, CALCIUM SALT | 02/152-57-4 | | | | | | |
| ARSENIUUS ACID, MONUSODIUM SALI | 00/784-46-5 | | | | | | |
| ARSONIC ACID ARSONIC ACID CALCIUM SALT (1.1) | 052740 16 6 | | | | | | |
| ARSONIC ACID, CALCIUM SALI (1:1) | 001222 21 4 | | | | | | |
| ASBESTOS ACTINOLITE | 001552-21-4 | | | | | A X | |
| ASDESTOS, ACTINULITE ASBESTOS AMOSITE | 01/330-00-4 | | | | | A V | |
| ASDESTOS, ANTHOPHYLLITE | 012112-13-3 | | | | | | |
| ASBESTOS, AUTIONTILIATE | 012001 20 5 | | | | | A X | |
| ASBESTOS, CRICIDOLITE | 012001-29-3 | | | | | A X | |
| ASBESTOS, CROCIDOLITE ASBESTOS TREMOLITE | 012001-20-4 | | | | | X | |
| AURAMINE | 000/02-20 2 | 11 | 1 21 | - | x | 23 | |
| | 000472-00-0 | I. | 1 | 4 | ~ 1 | I. | |

Key: IARC (INTERNATIONAL AGENCY FOR RESEARCH ON CANCER)

1 -- CARCINOGENIC TO HUMANS

2A -- PROBABLY CARCINOGENIC TO HUMANS

2B -- POSSIBLY CARCINOGENIC TO HUMANS "s" - readily absorbed through the skin

NTP (NATIONAL TOXICOLOGY PROGRAM) A -- KNOWN TO BE CARCINOGENS B -- REASONABLY ANTICIPATED TO BE CARCINOGENS

| CHEMICAL NAME | CAS # | OSHA | IAR0 1 2A | С 2В | NTP A | B |
|--|-------------|------|----------------|---------|------------|--------|
| AZACYTIDINE | 000320-67-2 | | | | | |
| AZASERINE | 000115-02-6 | 1 | | х | 1 | |
| AZATHIOPRINE | 000446-86-6 | 1 | X | 11 | x | |
| AZIRIDINE "s" | 000151-56-4 | 1 | | x | 11 | |
| BARIUM CHROMATE(VI) | 010294-40-3 | | x | 21 | x | |
| BENZ[a]ANTHRACENE "s" | 000056-55-3 | | | x | | x |
| BENZ[a]ANTIKACENE S | 000105 10 7 | | 1 | v | 1 | Δ |
| BENZ[] ACEANTHDVIENE | 000193-19-7 | | 1 | л v | | |
| BENZAL CHLORIDE (COMBINED EXPOSURE W/ RENZOVL CHLORIDE) | 000202-33-3 | | | Λ | 1 | |
| BENZENE "«" | 000071-43-2 | X | | | x | |
| BENZIDINE "s" | 000092-87-5 | X | | | | |
| BENZIDINE BASED DVES "s" | 000092-87-5 | | | | | |
| BENZO[1]PVRENE | 000050-32-8 | | | | 1 | v |
| | 000000-02-8 | | | v | | л v |
| DENZO[U]FLUORANTHENE | 000205-99-2 | | 1 | A V | | л v |
| | 000203-82-3 | | 1 | A V | | л v |
| DENZO[K]FLUUKANTHENE | 000207-08-9 | | 1 | A V | | Λ |
| DENZOFURAN | 000271-89-0 | | 1 | A V | | |
| DENZOPHENONE DENZOTRICHI ORIDE (COMDINED EXPOSURE W/ DENZOVI, CHI ORIDE) "«" | 000119-01-9 | | | Λ | | |
| DENZOTI KICHLOKIDE (COMDINED EXPOSURE W/ DENZOTI L'CHLOKIDE) 8 DENZOVI, CHLODIDE (COMDINED EXPOSURE W/ CHLODO TOLLENES) "«" | 000098-07-7 | | | | | |
| DENZOVI TDICHLORIDE (COMDINED EAPOSURE W/ CILURO TOLUENES) S | 000098-88-4 | | | | | v |
| BENZUILIKICHLUKIDE S | 000098-07-7 | | | | | А |
| BENZYL VIOLET 4D | 000100-44-7 | | | v | | |
| BENZYL VIOLET 4B | 001694-09-3 | | ¥ | Х | | v |
| BERYLLIUM ALUMINUM ALLOY | 012770-50-2 | | | | | Λ |
| BERYLLIUM ALUMINUM SILICATE | 001302-52-9 | | | | | |
| BERYLLIUM AND COMPOUNDS | 00/440-41-7 | | | | | |
| BERYLLIUM CHLORIDE | 007787-47-5 | | | | | |
| BERYLLIUM FLUORIDE | 007787-49-7 | | | | | |
| BERYLLIUM HYDROGEN PHOSPHATE (1:1) | 013598-15-7 | | | | | |
| BERYLLIUM HYDROXIDE | 013327-32-7 | | | | | |
| BERYLLIUM OXIDE | 001304-56-9 | | | | | |
| BERYLLIUM OXIDE CARBONATE | 066104-24-3 | | | | | |
| BERYLLIUM SULFATE (1:1) | 013510-49-1 | | | | | |
| BERYLLIUM SULFATE, TETRAHYDRATE (1:1:4) | 00//8/-56-6 | | | | | |
| BERYLLIUM ZINC SILICATE | 039413-47-3 | | X | | | |
| BISCHLOROETHYL NITROSOUREA (BCNU) | 000154-93-8 | | | | | Х |
| BLEOMYCIN SULFATE | 009041-93-4 | | 1 | Х | | |
| BLEOMYCIN, HYDROCHLORIDE | 067763-87-5 | | | Х | | |
| BLEOMYCINS | 011056-06-7 | | 1 | X | | |
| BRACKEN FERN | 000000-00-0 | | | Х | | |
| BROMODICHLOROMETHANE | 000075-27-4 | | | Х | | Х |
| BUTADIENE,1,3- | 000106-99-0 | X | X | | X | |
| BUTANEDIOL DIMETHANESULPHONATE, 1, 4- (BUSULFAN) | 000055-98-1 | | X | | X | |
| BUTYLATED HYDROXYANISOLE (BHA) | 025013-16-5 | | | Х | | Х |
| BUTYRIC ACID, 4-(N-BUTYL-N-NITROSAMINO)- | 038252-74-3 | | | | | Х |
| BUTYROLACTONE,BETA- | 003068-88-0 | | | Х | | |
| CADMIUM AND COMPOUNDS | 007440-43-9 | X | X | | X | |
| CADMIUM CARBONATE | 000513-78-0 | X | X | | X | |
| CADMIUM CHLORIDE "s" | 010108-64-2 | X | X | | X | |
| CADMIUM FLUOBORATE | 014486-19-2 | X | X | | X | |
| CADMIUM NITRATE | 010325-94-7 | X | X | | X | |
| CADMIUM OXIDE | 001306-19-0 | X | X | | X | |
| CADMIUM SULFATE (1:1) | 010124-36-4 | X | X | | X | |
| CADMIUM SULFIDE | 001306-23-6 | X | X | | X | |
| CAFFEIC ACID | 000331-39-5 | | | Х | | |
| | | | | | | |

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"s" - readily absorbed through the skin

NTP (NATIONAL TOXICOLOGY PROGRAM) A -- KNOWN TO BE CARCINOGENS B -- REASONABLY ANTICIPATED TO BE CARCINOGENS

| CHEMICAL NAME | CAS # | OSHA | IAR 1 2A | C 2B | NTF A | , В |
|--|-------------|------|---------------|---------|------------|--------|
| | | | | | | |
| CAPTAFOI | 002425-06-1 | | | | | |
| CARBON BLACK | 001333-86-4 | | | x | 11 | |
| CARBON TETRACHLORIDE "s" | 000056-23-5 | 1 | 1 | x | | v |
| CARRAGEENAN DEGRADED | 000000-23-3 | | 1 | x | | Λ |
| CATECHOL "«" | 000120-80-9 | | 1 | X | 1 | |
| CEDAMIC EIREDS (DESDIDARI E SIZE) | 000120-00-0 | | 1 | v | | |
| CHLORAMBUCII | 000305-03-3 | | | Λ | x | |
| CHLORAMPHENICOL | 000056-75-7 | | | | | |
| CHLORDANE "s" | 000057-74-9 | | | x | 11 | |
| CHLORDANE ALPHA "s" | 005103-71-9 | 1 | 1 | x | | |
| CHLORDANE BETA "s" | 005103-74-2 | | 1 | x | | |
| CHLORDANE GAMMA "s" | 005566-34-7 | | 1 | x | | |
| CHLORENDIC ACID | 000115-28-6 | 1 | 1 | x | | x |
| CHLORINATED PARAFFINS (CARBON-12, 60% CHLORINE) | 108171-26-2 | | 1 | x | i | x |
| CHLORO-2-METHYLPROPENE 3- | 000563-47-3 | 1 | 1 | | 1 | x |
| CHLORO-2-METHYLPROPENE 1- | 000513-37-1 | 1 | Ì | х | | x |
| CHLORO-4-(DICHLOROMETHYL)-5-HYDROXY-2(5H)FURANONE 3- | 077439-76-0 | 1 | 1 | x | | |
| CHLOROANILINE nara "s" | 000106-47-8 | 1 | 1 | x | 1 | |
| CHLOROETHYL(2)-3-(4-METHYLCYCLOHEXYL)-1-NITROSOUREA 1- | 013909-09-6 | 1 | X | | x | |
| CHLOROETHYL(2)-3-CYCLOHEXYL-1-NITROSOUREA 1- (CCNU) | 013010-47-4 | 1 | X | | | х |
| CHLOROFORM | 000067-66-3 | | | х | i | X |
| CHLOROMETHYL ETHER.BIS- "s" | 000542-88-1 | X | X | | X | |
| CHLOROMETHYL ETHER, BIS- "s" (TECHNICAL GRADE) | 000107-30-2 | X | X | | X | |
| CHLORO-ortho-PHENYLENEDIAMINE.4- | 000095-83-0 | Ì | i | Х | i | Х |
| CHLORO-ortho-TOLUIDINE, para- | 000095-69-2 | Ì | X | | Ì | Х |
| CHLORO-O-TOLUIDINE HYDROCHLORIDE, 4- | 003165-93-3 | İ | i | | i | Х |
| CHLOROPHENOXY HERBICIDES "s" | 000000-00-0 | i | i | Х | i | |
| CHLOROPRENE "s" | 000126-99-8 | İ | i | Х | i | Х |
| CHLOROTHALONIL | 001897-45-6 | İ | İ | Х | i | |
| CHLOROZOTOCIN | 054749-90-5 | İ | X | | i | |
| CHROMATE(1-), HYDROXYOCTAOXODIZINCATEDI-, POTASSIUM | 011103-86-9 | İ | X | | X | |
| CHROMIC ACID, DISODIUM SALT "s" | 007775-11-3 | Ì | X | | X | |
| CHROMIUM (III) OXIDE (2:3) | 001308-38-9 | Ì | X | | X | |
| CHROMIUM (VI) CHLORIDE | 014986-48-2 | | X | | X | |
| CHROMIUM (VI) OXIDE (1:3) | 001333-82-0 | | X | | X | |
| CHROMIUM CARBONATE | 029689-14-3 | | X | | X | |
| CHROMIUM PHOSPHATE | 007789-04-0 | | X | | X | |
| CHROMIUM TRIACETATE | 001066-30-4 | | X | | X | |
| CHROMIUM, DICHLORODIOXO- | 014977-61-8 | | X | | X | |
| CHROMIUM, HEXAVALENT AND COMPOUNDS | 007440-47-3 | | X | | X | |
| CHRYSENE | 000218-01-9 | | | Х | | |
| CI ACID RED 114 | 006485-34-3 | | | Х | | |
| CI BASIC RED 9 | 000569-61-9 | | | Х | | Х |
| CI DIRECT BLUE 15 | 002429-74-5 | | | Х | | |
| CICLOSPORIN | 079217-60-0 | | X | | | |
| CISPLATIN | 015663-27-1 | | X | | | Х |
| CITRUS RED NO. 2 | 006358-53-8 | | | Х | | |
| COAL TAR "s" | 065996-89-6 | | | | X | |
| COAL TAR DISTILLATE "s" | 065996-92-1 | | | | X | |
| COAL-TAR "s" | 008007-45-2 | | X | | X | |
| COAL-TAR PITCHES "s" | 065996-93-2 | | X | | X | |
| COBALT (2+) SULFIDE | 001317-42-6 | | | Х | | |
| COBALT (II) ACETATE | 006147-53-1 | | | Х | | |
| COBALT (III) OXIDE | 001308-04-9 | 1 | | Х | | |

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| CHEMICAL NAME | CAS # | OSHA | IAR 1 2A | C 2B | NTP | В |
|--|-------------|------|---------------|------------|-----|---|
| COBALT ACETATE | | | | <u>-</u> - | | |
| COBALT ALLOY CO CR | 011114-92-4 | | 1 | x | x | |
| COBALT AND COMPOUNDS | 007440-48-4 | | 1 | x | 11 | |
| COBALT CARBONATE | 000513-79-1 | | 1 | x | 1 | |
| COBALT CARBONATE COBALT DIHYDROXIDE (2.3) | 012602-23-2 | | 1 | x | 1 | |
| COBALT CARBONYL | 017786-31-1 | | 1 | x | 1 | |
| COBALT DINITRATE HEXAHYDRATE | 010026-22-9 | | 1 | x | 1 | |
| COBALT HYDROXIDE | 001307-86-4 | | 1 | x | 1 | |
| COBALT HYDROXIDE OXIDE | 012016-80-7 | | 1 | x | 1 | |
| COBALT MOLYBDATE (VI) | 013762-14-6 | | 1 | x | 1 | |
| COBALT NAPHTHATE | 061789-51-3 | | 1 | x | 1 | |
| COBALT OXIDE | 001308-06-1 | | 1 | x | 1 | |
| COBALT TRIACETATE | 000917-69-1 | | 1 | x | 1 | |
| COBALT(2+) OXIDE | 001307-96-6 | | 1 | x | 1 | |
| COBALT(II) CHLORIDE | 007646-79-9 | | 1 | x | 1 | |
| COBALT(II) CHLORIDE HEXAHYDRATE | 007791-13-1 | | 1 | x | 1 | |
| COBALT(II) HYDROXIDE | 021041-93-0 | | 1 | x | 1 | |
| COBALT(II) NITRATE (1.2) | 010141-05-6 | | 1 | x | 1 | |
| COBALT(II) SULFATE (1:1) | 010124-43-3 | | 1 | x | 1 | х |
| COBALT (MU(CARBONATO(2-)-O'O'))DIHYDROXYDI | 012069-68-0 | | 1 | x | 1 | |
| COBALT DI-MU-CARBONYI NONACARBONYI | 010210-68-1 | | 1 | x | 1 | |
| COBALT-CHROMIUM-MOLYBDENUM ALLOY | 012629-02-6 | | 1 | x | x | |
| COBALT-CHROMIUM-NICKEL-TUNGSTEN ALLOY | 012638-07-2 | | 1 | x | X | |
| CONESTORAL | 000438-67-5 | | 1 | | X | |
| CREQSOTE WOOD | 008021-39-4 | | 1 | | X | |
| CREOSOTES | 008001-58-9 | | X | | X | |
| CRESIDINE, para- | 000120-71-8 | | 1 | Х | | Х |
| CUPFERRON | 000135-20-6 | | Ì | | 1 | X |
| CYCASIN | 014901-08-7 | | Ì | х | 1 | |
| CYCLOPENTAICDIPYRENE | 027208-37-3 | | X | | 1 | |
| CYCLOPHOSPHAMIDE "s" | 006055-19-2 | | X | | X | |
| CYCLOPHOSPHAMIDE "s" | 000050-18-0 | | X | | | |
| CYCLOSPORIN "s" | 079217-60-0 | | Х | | 1 | |
| CYCLOSPORIN A "s" | 059865-13-3 | | X | | X | |
| DACARBAZINE | 004342-03-4 | | i | Х | İ | Х |
| DAUNOMYCIN | 020830-81-3 | | İ | Х | Ì | |
| DDT "s" | 000050-29-3 | | i | Х | i | Х |
| DECABROMOBIPHENYL | 013654-09-6 | Ì | i | | i | Х |
| DI(2-ETHYLHEXYL)PHTHALATE | 000117-81-7 | | i | Х | i | Х |
| DIACETYLBENZIDINE,N,N'- | 000613-35-4 | | i | Х | İ | |
| DIAMINOANISOLE SULPHATE, 2,4- | 039156-41-7 | i | Í | | i | Х |
| DIAMINOANISOLE, 2,4- (AND ITS SALTS) | 000615-05-4 | Ì | Í | Х | İ | |
| DIAMINOBENZENE | 000136-35-6 | i | Í | | i | Х |
| DIAMINODIPHENYL ETHER, 4,4- | 000101-80-4 | i | Í | Х | i | Х |
| DIAMINOTOLUENE, 2,4- | 000095-80-7 | | l | Х | Ì | Х |
| DIAZOAMINOBENZENE | 000136-35-6 | i | Í | | İ | Х |
| DIBENZ[a,h]ACRIDINE | 000226-36-8 | | X | | 1 | Х |
| DIBENZ[a,h]ANTHRACENE | 000053-70-3 | | X | | | Х |
| DIBENZ[a,j]ACRIDINE | 000224-42-0 | | X | | | Х |
| DIBENZ[c,h]ACRIDINE | 000224-53-3 | | Ì | Х | 1 | |
| DIBENZO[a,e]PYRENE | 000192-65-4 | | | | | Х |
| DIBENZO[a,h]PYRENE | 000189-64-0 | | | Х | | Х |
| DIBENZO[a,i]PYRENE | 000189-55-9 | | | Х | | Х |
| DIBENZO[a,1]PYRENE | 000191-30-0 | | X | | | Х |
| DIBENZO[c,g]CARBAZOLE, 7H- | 000194-59-2 | | X | | | Х |
| | | | | | | |

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| CHEMICAL NAME | CAS # | OSHA | IAR | C 2B | NTP | , В |
|--|----------------------------|------|-----|---------|------|--------|
| | | | į | | İ | |
| DIBROMO-1-PROPANOL,2,3- | 000096-12-9 | | 1 | | | X |
| DIBROMO-3-CHLOROPROPANE,1,2- "s" (DBCP) | 000096-12-8 | | 1 | X | | Х |
| DIBROMOACETIC ACID "s" | 000631-64-1 | | | Х | | |
| DIBROMOACETONITRILE "s" | 003252-43-5 | | | Х | ļ | |
| DICHLORO-2-PROPANOL, 1,3- "s" | 000096-23-1 | | | Х | | |
| DICHLORO-4,4'-DIAMINODIPHENYL ETHER, 3,3'- | 028434-86-8 | | | Х | | |
| DICHLOROACETIC ACID "s" | 000079-43-6 | | | Х | | Х |
| DICHLOROBENZIDINE, DIHYDROCHLORIDE, 3,3'- | 000612-83-9 | | | | | Х |
| DICHLOROBENZIDINE,3,3'- "s" | 000091-94-1 | X | | Х | | Х |
| DICHLOROETHANE, 1,2- "s" | 000107-06-2 | | | Х | X | |
| DICHLOROMETHANE | 000075-09-2 | | | Х | | Х |
| DICHLOROPROPENE, 1,3- (TECHNICAL-GRADE) "s" | 000542-75-6 | | | Х | | Х |
| DICHLORVOS "s" | 000062-73-7 | | | Х | | |
| DIEPOXYBUTANE "s" | 001464-53-5 | | | | | Х |
| DIESEL EXHAUST | 000000-00-0 | | X | | | Х |
| DIESEL FUEL MARINE | 000000-00-0 | | | Х | | |
| DIETHANOLAMINE "s" | 000111-42-2 | | | Х | | |
| DIETHYL SULFATE "s" | 000064-67-5 | | X | | 1 | Х |
| DIETHYLHYDRAZINE, 1,2- | 001615-80-1 | Ì | Ì | Х | Ì | |
| DIETHYLSTILBOESTROL "s" | 000056-53-1 | İ | X | | X | |
| DIGLYCIDYL RESORCINOL ETHER | 000101-90-6 | İ | Ì | Х | i | Х |
| DIHYDROSAFROLE | 000094-58-6 | İ | i | Х | i | |
| DIMETHOXYBENZIDINE, 3,3'- (0-DIANISIDINE) | 000119-90-4 | Ì | İ | Х | i | Х |
| DIMETHYL SULFATE | 000077-78-1 | 1 | X | | i | х |
| DIMETHYLAMINOAZOBENZENE PARA | 000060-11-7 | X | 1 | x | i | x |
| DIMETHYL ARSENIC ACID | 000075-60-5 | 1 | Ì | x | i | |
| DIMETHYL BENZIDINE 33'- (0-TOLIDINE) "s" | 000119-93-7 | 1 | 1 | x | i | х |
| DIMETHYL CARBAMOYL CHLORIDE | 000079-44-7 | 1 | X | | i | x |
| DIMETHYLHYDRAZINE 11-"s" | 000057-14-7 | 1 | 1 | x | i | x |
| DINITROFI LIOROANTHENE 37. | 105735-71-5 | 1 | 1 | x | 1 | |
| DINITROFILIOROANTHENE 30 | 022506-53-2 | | 1 | x | 1 | |
| DINITROPVEENE 1 3- "s" | 075321_20_9 | | 1 | x | 1 | |
| DINITROPYRENE 1.6. | 0/2397-64-8 | | 1 | x | 1 | x |
| DINITROPVRENE 1 8- | 042397-65-9 | | 1 | x | 1 | Λ |
| DINITROT LIENE 2.4 "e' | 042377-03-7 000121 14 2 | | 1 | v | 1 | |
| DIOYANE 14 "s" | 000121-14-2 | | 1 | л V | 1 | v |
| DIDECT DI ACK 29 | 000123-91-1 | | 1 | Λ | | Λ |
| DIRECT BLACK 50 | 001937-37-7 | | 1 | | | |
| DIRECT BLUE 0 | 002002-40-2 | | | v | | v |
| DISPERSE BLUE I | 002475-45-8 | | | Λ | | A V |
| EPICHLOROHYDRIN "S" | 000106-89-8 | | | v | ļ | Х |
| EPOXYBUTANE, 1,2- | 000106-88-7 | | | Х | 1 37 | |
| | 066733-21-9 | | X | | X | |
| ESTRA-1,2,5(10),7-TETRAEN-17-ONE,3-(SULFOOXY)-,SODIUM SALT | 016680-47-0 | | 1 | | X | |
| ETHYL ACRYLATE "s" | 000140-88-5 | | | Х | | |
| ETHYL METHANESULFONATE | 000062-50-0 | | | Х | | Х |
| ETHYLENE DIBROMIDE "s" | 000106-93-4 | | X | | | Х |
| ETHYLENE OXIDE | 000075-21-8 | X | X | | X | |
| ETHYLENE THIOUREA | 000096-45-7 | | | | | Х |
| ETHYL-N-NITROSOUREA,N- | 000759-73-9 | | X | | | Х |
| ETOPOSIDE | 033419-42-0 | | X | | | |
| FORMALDEHYDE "s" | 000050-00-0 | X | X | | X | |
| FOWLER'S SOLUTION | 001332-10-1 | | X | | | |
| FUMONISIN B1 | 116355-83-0 | | | Х | 1 | |
| FURAN "s" | 000110-00-9 | | | Х | 1 | Х |
| FURYLAMIDE | 003688-53-7 | 1 | 1 | Х | 1 | |

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| CHEMICAL NAME | CAS # | OSHA | IA 1 2A | RC A 2B | NTF | B |
|---|-------------|------|--------------|------------|-----|--------|
| GALLIUM ARSENIDE | | | | | | |
| GASOLINE "s" | 008006-61-9 | İ | i | Х | İ | |
| GASOLINE, ENGINE EXHAUST FUMES | 000000-00-0 | İ | i | Х | i | |
| GLASS FIBERS, SPECIALTY (E-GLASS, '475') | 000000-00-0 | i | i | Х | i | |
| GLASSWOOL (RESPIRABLE SIZE) | 000000-00-0 | İ | i | Х | i | Х |
| GLU-P-1(2-AMINO-6-METHYLDIPYRIDO[1,2-A:3',2'-D]IMIDZOLE | 067730-11-4 | İ | i | Х | i | |
| GLU-P-2 (2-AMINODIPYRIDO[1,2-a:3',2'-d]IMIDAZOLE | 067730-10-3 | İ | İ | Х | İ | |
| GLYCIDALDEHYDE "s" | 000765-34-4 | İ | i | Х | İ | |
| GLYCIDOL "s" | 000556-52-5 | | X | | | Х |
| GRISEOFULVIN | 000126-07-8 | | | Х | | |
| HC BLUE 1 | 002784-94-3 | | | Х | | |
| HEPTACHLOR "s' | 000076-44-8 | | | Х | | |
| HEPTACHLOR EPOXIDE "s" | 001024-57-3 | | | Х | | |
| HEXACHLOROBENZENE "s" | 000118-74-1 | | | Х | | Х |
| HEXACHLOROBENZENE, GAMMA "s" | 000058-89-9 | | | | | Х |
| HEXACHLOROCYCLOHEXANES "s" | 000000-00-0 | | | Х | | Х |
| HEXACHLOROETHANE | 000067-72-1 | | | Х | | Х |
| HEXACHLOROHEXANE (ALL ISOMERS) | 000608-73-1 | | | Х | | Х |
| HEXAMETHYLPHOSPHORAMIDE "s" | 000680-31-9 | | | Х | | Х |
| HYDRAZINE "s" | 000302-01-2 | | | Х | | Х |
| HYDRAZINE SULFATE (1:1) "s" | 010034-93-2 | | | | | Х |
| HYDRAZOBENZENE | 000122-66-7 | | | | | Х |
| INDENO[1,2,3-cd]PYRENE | 000193-39-5 | | | Х | | Х |
| INIDIUM PHOSPHIDE | 022398-80-7 | | X | | | |
| IQ(2-AMINO-3-METHYLIMIDAZO[4,5-f]QUINOLINE) | 076180-96-6 | | X | | | |
| IRON-DEXTRAN COMPLEX | 009004-66-4 | | ļ | Х | | Х |
| ISOPRENE | 000078-79-5 | | | Х | | Х |
| KEPONE (CHLORDECONE) "s" | 000143-50-0 | | ļ | X | | Х |
| LASIOCARPINE | 000303-34-4 | | | Х | | v |
| LEAD ACETATE (I) TRUNDDATE | 000301-04-2 | | | | | X |
| LEAD ACEIAIE (II) IRIHYDRAIE | 006085-56-4 | | | | | X |
| LEAD AND COMPOUNDS | 007459-92-1 | | | | | А |
| | 007738-97-0 | | | | | |
| | 018434-12-1 | | | | | v |
| | 00/440-2/-/ | | | | | л v |
| LINDANE RETA | 000319-84-0 | | 1 | | | A V |
| MAGENITA (CONTAINING CI BASIC PED 0) | 000632 00 5 | | 1 | v | 1 | Δ |
| MeA_AI PHA_C(2_AMINO_3_METHYI_9H_PYRIDO[2_3_b]INDOI F) | 068006-83-7 | | 1 | X | 1 | |
| MEDROXYPROGESTERONE ACETATE | 000071-58-9 | | 1 | x | 1 | |
| MELPHALAN | 000148-82-3 | 1 | x | | x | |
| MERPHALAN | 000531-76-0 | 1 | | х | | |
| METHOXYPSORALEN.5- | 000484-20-8 | | i x | | Ì | |
| METHYL ISOBUTYL KETONE | 000108-10-1 | 1 | 1 | Х | Ì | |
| METHYL MERCURY AND COMPOUNDS "s" | 022967-92-6 | 1 | i | X | Ì | |
| METHYL METHANESULPHONATE | 000066-27-3 | Ì | i x | | İ | Х |
| METHYL STYRENE, ALPHA | 000098-83-9 | İ | i | Х | i | |
| METHYL-1-NITROANTHRAQUINONE, 2- (UNCERTAIN PURITY) | 000129-15-7 | İ | i | Х | İ | |
| METHYLARSONIC ACID | 000124-58-3 | Ì | Ì | Х | Ì | |
| METHYLAZIRIDINE, 2- (PROPYLENEIMINE) "s" | 000075-55-8 | | | Х | | Х |
| METHYLAZOXYMETHANOL ACETATE | 000592-62-1 | | | Х | | |
| METHYLCHRYSENE, 5- | 003697-24-3 | | | Х | | Х |
| METHYLENE BIS(2-CHLOROANILINE), 4,4- (MOCA) "s" | 000101-14-4 | | X | | | Х |
| METHYLENE BIS(2-METHYLANILINE), 4,4'- | 000838-88-0 | | | Х | | |
| METHYLENEBIS(N,N-DIMETHYL)BENZENAMINE | 000101-61-1 | | | Х | | Х |

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| CHEMICAL NAME | CAS # | OSHA | IAR 1 2A | C 2B | NTP | В |
|--|-------------|------|---------------|------------|-----|-------------------------|
| METHYLENEDIANII INE, 4.4' | | | | - <u>-</u> | | $\overline{\mathbf{x}}$ |
| METHYLENEDIANILINE 4 4'- DIHYDROCHLORIDE | 013552-44-8 | | | | | x |
| METHYLEUGENOL | 000093-15-2 | | | х | | x |
| METHYLIMIDAZOLE 2- | 000693-98-1 | | 1 | x | | |
| METHYLIMIDAZOLE, 2 METHYLIMIDAZOLE, 4- "s" | 000822-36-6 | | | x | | |
| METHYL-N-NITRO-N'-NITROSOGUANIDINE.N- (MNNG) | 000070-25-7 | | X | | | х |
| METHYL-N-NITROSOUREA n- | 000684-93-5 | | X | | | x |
| METHYLTHIOURACIL | 000056-04-2 | | | х | | |
| METHY-N-NITROSOURETHANE.n- | 000615-53-2 | | | X | Ì | |
| METRONIDAZOLE | 000443-48-1 | | | Х | 1 | Х |
| MICHLER'S KETONE | 000090-94-8 | | | | 1 | х |
| MICROCYSTIN | 101043-37-2 | | 1 | х | Ì | |
| MINERAL OILS.UNTREATED AND MILDLY TREATED | 000000-00-0 | | X | | X | |
| MIREX "s" | 002385-85-5 | | | х | 1 | х |
| MITOMYCIN C | 000050-07-7 | | | Х | 1 | |
| MONOCHLORO-1.2-PROPANEDIOL. 3- "s" | 000096-24-2 | | | Х | 1 | |
| MONOCROTALINE | 000315-22-0 | | İ | Х | i | |
| MUSTARD GAS "s" | 000505-60-2 | | X | | X | |
| N-[4-(5-NITR-2-FURYL)-2-THIAZOLYL]ACETAMIDE | 000531-82-8 | | | Х | Ì | |
| NAFENOPIN | 003771-19-5 | | | Х | Ì | |
| NAPHTHALENE | 000091-20-3 | | İ | Х | i | Х |
| NAPHTHLYAMINE,N,N-BIS(2CHLOROETHYL)-2- | 000494-03-1 | | X | | Ì | |
| NAPHTHYLAMINE,2- "s" | 000091-59-8 | X | X | | X | |
| NAPHTHYLAMINE, ALPHA- "s" | 000134-32-7 | X | İ | | i | |
| NICKEL (II) ACETATE (1:2) | 000373-02-4 | Ì | X | | X | |
| NICKEL (II) CARBONATE (1:1) | 003333-67-3 | Ì | X | | X | |
| NICKEL (II) HYDROXIDE | 012054-48-7 | i | X | | X | |
| NICKEL (II) OXIDE (1:1) | 001313-99-1 | 1 | X | | X | |
| NICKEL (III) HYDROXIDE | 012125-56-3 | i | X | | X | |
| NICKEL BISCYCLOPENDADIENE | 001271-28-9 | | X | | X | |
| NICKEL CARBONYL | 013463-39-3 | | X | | X | |
| NICKEL COMPOUNDS | 000000-00-0 | | X | | X | |
| NICKEL HYDROXIDE | 011113-74-9 | | X | | X | |
| NICKEL SULFIDE (3:2) | 012035-72-2 | | X | | X | |
| NICKEL, METALLIC AND ALLOYS | 007440-02-0 | | | Х | X | |
| NIRIDAZOLE | 000061-57-4 | | | Х | | |
| NITRILOTRIACETIC ACID AND SALTS | 000139-13-9 | | | Х | | Х |
| NITRILOTRIACETIC ACID, DISODIUM SALT | 015467-20-6 | | | Х | | Х |
| NITRILOTRIACETIC ACID, DISODIUM SALT, MONOHYDRATE | 023255-03-0 | | | Х | | Х |
| NITRILOTRIACETIC ACID, MONOSODIUM SALT | 018994-66-6 | | | Х | | Х |
| NITRILOTRIACETIC ACID, TRISODIUM SALT | 005064-31-3 | | | Х | | Х |
| NITRILOTRIACETIC ACID, TRISODIUM SALT, MONOHYDRATE | 018662-53-8 | | | Х | | Х |
| NITROACENAPHTHENE, 5- | 000602-87-9 | | | Х | | |
| NITROANISOLE, 2- | 000091-23-6 | | | Х | | Х |
| NITROBENZANTHRONE, 3- | 017117-34-9 | | | Х | | |
| NITROBENZENE "s" | 000098-95-3 | | | Х | | Х |
| NITROBIPHENYL,4- | 000092-93-3 | X | | | | |
| NITROCHRYSENE, 6- | 007496-02-8 | | X | | | Х |
| NITROFEN (TECHNICAL-GRADE) "s" | 001836-75-5 | | | Х | | Х |
| NITROFLUORENE, 2- | 000607-57-8 | | | Х | | |
| NITROFURFURYLIDIENE(5)-AMINO-2-IMIDAZOLIDINONE, 1- | 000555-84-0 | | 1 | Х | | |
| NITROGEN MUSTARD "s" | 000051-75-2 | | X | | | _ |
| NITROGEN MUSTARD HYDROCHLORIDE "s" | 000055-86-7 | | | | | Х |
| NITROGEN MUSTARD N-OXIDE | 000126-85-2 | | | Х | | _ |
| NITROMETHANE | 000075-52-5 | | | Х | | Х |

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"s" - readily absorbed through the skin

NTP (NATIONAL TOXICOLOGY PROGRAM) A -- KNOWN TO BE CARCINOGENS B -- REASONABLY ANTICIPATED TO BE CARCINOGENS

| CHEMICAL NAME | CAS # | OSHA | 1 | IARC 2A | 2B | A NTP | в |
|---|-------------|------|------|------------|------------|-------|------------|
| | 000070 46 0 | | ! — | | - <u>-</u> | | - <u>-</u> |
| NITROPROPANE, 2- | 000079-40-9 | | 1 | v | Λ | | A V |
| NITROPYTRENE, I- | 005522-45-0 | | 1 | Λ | v | | A V |
| NITROP I REINE, 4- | 05/855-92-4 | | 1 | | Λ | | A V |
| NITROSOBUTYLBUTANOLAMINE,N- | 003817-11-0 | | | | v | | A V |
| NITROSODIETHANOLAMINE, N- | 001116-54-7 | | | v | Х | | X |
| NITROSODIETHYLAMINE,N- | 000055-18-5 | | 1 | A V | | | A V |
| NITROSODIMETHYLAMINE,N- | 000062-75-9 | | | Х | v | | X |
| NITROSODI-DEODYLAMINE, N- | 000924-16-3 | | | | X | | X |
| NITROSODI-n-PROPYLAMINE, n- | 000621-64-7 | | | | X | | Х |
| NITROSOMETHYLVINYLAMINE, N- | 010595-95-6 | | 1 | | A V | | v |
| NITROSOMETHYLVINYLAMINE, N- | 004549-40-0 | | | | X | | X |
| NITROSOMORPHOLINE, N- | 000059-89-2 | | 1 32 | | Х | | X |
| NITROSONORNICOTINE, N- | 010545-55-8 | | | | v | | A V |
| NITROSOPIPERIDINE, N- | 000100-75-4 | | | | X | | X |
| NITROSOPY KROLIDINE, N- | 000930-55-2 | | | | X | | X |
| NITROSOSACOSINE, N- | 013256-22-9 | | | v | Х | | X |
| NITROTOLUENE, 2- | 000088-72-2 | | | Х | | | X |
| N-NITROSOMETHYLAMINO-1-(30PYRIDYL)-1-BUTANONE, 4- (NNK) | 064091-91-4 | | | | | | Х |
| N-NITROSOMETHYLAMINO-PROPIONITRILE, 3- | 060153-49-3 | | | | Х | | |
| NNK (4-(N-NITROSOMETHYLAMINO)-1-(3-PYRIDYL)-1-BUTANONE) | 064091-91-4 | | | | | | |
| NORETHISTERONE | 000068-22-4 | | ! | | | | X |
| OCHRAIOXIN A | 000303-47-9 | | ! | | Х | | X |
| OCTABROMOBIPHENYL | 061288-13-9 | | ! | | | | Х |
| OIL ORANGE SS | 002646-17-5 | | | | X | | |
| OXAZEPAM | 000604-75-1 | | ! | | X | | |
| OXAZOLIDININE,2,5-(MORPHOLINOMETHYL)-3-[(5-NITROFURYLIDENE)AMINO- | 003/95-88-8 | | ! | | Х | | |
| OXYMETHOLONE | 000434-07-1 | | | | | | Х |
| PALYGORSKITE (fibers > 5 micrometers) | 012174-11-7 | | ! | | X | | |
| PANFURAN containing DIHYDROXMETHYLFURATRIZINE | 000794-93-4 | | ! | | Х | | |
| PCB (AROCLOR 1254) | 01109/-69-1 | | | X | | | X |
| PCB (AROCLOR 1260) | 011096-82-5 | | ! | Х | | | X |
| PENTACHLOROBIPHENYL | 025429-29-2 | | | | | | Х |
| PENTACHLOROBIPHENYL, 3,4,5,3,4- (PCB-126) | 05/465-28-8 | | | • | | | |
| PHENACETIN | 000062-44-2 | | | Х | | | X |
| PHENAZOPYRIDINE HYDROCHLORIDE | 000136-40-3 | | ! | | X | | Х |
| PHENOBARBITAL | 000050-06-6 | | ! | | Х | | |
| PHENOTHALEIN | 000077-09-8 | | | | | | X |
| PHENOX Y BENZAMINE HYDROCHLORIDE | 000063-92-3 | | ! | | X | | Х |
| PHENYL GLYCIDYL ETHER "s" | 000122-60-1 | | ! | | X | | |
| PHENYTOIN | 000057-41-0 | | ! | | X | | X |
| PHLP(2-AMINO-1-METHYL-6-PHENYLIMIDAZO[4,5-BJPYRIDINE) | 105650-23-5 | | | | Х | | Х |
| PIPERAZINE ESTRONE SULFATE | 007280-37-7 | | ! | | | | |
| POLYBROMINATED BIPHENYL (FF-1) | 06///4-32-/ | | ! | | | | Х |
| POLYBROMINATED BIPHENYLS | 059536-65-1 | | | | Х | | |
| POLYCHLORINATED BIPHENYLS | 001336-36-3 | | ! | Х | | | X |
| POLYCHLOROPHENOLS AND THEIR SODIUM SALTS "s" | 000000-00-0 | | ! | | Х | | X |
| POLYCYCLIC AROMATIC HYDROCARBONS | 000000-00-0 | | ļ | | | | Х |
| PONCEAU 3R | 003564-09-8 | | | | Х | | |
| PONCEAU MX | 003761-53-3 | | | | Х | | |
| POTASSIUM BROMATE | 007758-01-2 | | | | Х | | |
| POTASSIUM CHROMATE (VI) | 007789-00-6 | 1 | X | | | X | |
| POTASSIUM DICHROMATE (VI) | 007778-50-9 | | X | | | X | |
| PROCARBAZINE HYDROCHLORIDE | 000366-70-1 | | | Х | | | Х |
| PROGESTERONE | 000057-83-0 | | 1 | | | | Х |
| PROPANE SULTONE, 1,3- "s" | 001120-71-4 | | | | Х | | Х |

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| | | | IAR | <u>C</u> | NTP | , — |
|---|-------------|------|------|-----------------|-----|------------|
| CHEMICAL NAME | CAS # | OSHA | 1 2A | 2B | A | В |
| PROPANEDIOL.2.2-BIS-(BROMOETHYL)-1.3- | 003296-90-0 | | | $-\overline{x}$ | | - <u>x</u> |
| PROPIOLACATONE, BETA | 000057-57-8 | X | | х | Ì | х |
| PROPYLENE OXIDE "s" | 000075-56-9 | | | X | Ì | X |
| PROPYLTHIOURACIL | 000051-52-5 | | | x | 1 | x |
| OUARTZ ISILICA CRYSTALLINE (RESPIRABLE)] | 014808-60-7 | | x | | x | |
| RADON AND ITS DECAY PRODUCTS | 010043-92-2 | | x | | X | |
| REERACTORY CERAMIC FIBERS | 000000-00-0 | | | x | 11 | |
| RESERVICE | 000050-55-5 | | | 21 | 1 | x |
| RIDDELLINE | 023246-96-0 | | | x | 1 | x |
| ROCKWOOL | 000000-00-0 | | | x | 1 | |
| SACCHARIN | 000081-07-2 | | | x | 1 | |
| SACCHARIN SODIUM SALT | 000128-44-9 | | | x | 1 | |
| SAEROLE | 000120-44-7 | | | x | 1 | v |
| SENADMONITE | 012412 52 1 | | | v | 1 | Λ |
| SHALE OILS "s" | 068308 34 0 | | v | Λ | | |
| SILICA CRYSTALLINE (RESPIRABLE) | 0000000000 | | | | I X | |
| SILICA, CRYSTALLINE (RESTRABLE) | 014464 46 1 | | | | | |
| SILICA, CRISTALLINE CRISTODALITE | 015469 22 2 | | | | | |
| SILICA, CRISTALLINE TRIDINITE | 013408-32-3 | | | | | |
| SILICA, CRISTALLINE INFOLI | 015101 85 2 | | | | | |
| SILICIC ACID BERT LLIUM SALT | 010599.01.0 | | | | | |
| SODIUM DICHKOMATE (VI) S | 010366-01-9 | | | v | | |
| SODIUM OHIO-PHENTLPHENATE | 000152-27-4 | | | Λ | | |
| SUOIS, IARS, MIINERAL OILS | 010048 12 2 | | | v | | |
| STEEDTOZOTOCINI | 010046-15-2 | | | A V | | |
| STREPTOZOTOCIN STRONTHIM CHROMATE (M) | 018885-00-4 | | | Λ | | |
| STRUNTIUM CHROMATE (VI) | 007789-06-2 | | | v | | v |
| STIRENE S | 000100-42-5 | | N N | Λ | | Λ |
| STYRENE-7,8-UXIDE "S" | 000096-09-3 | | | v | | |
| SULFALLATE "S" | 000095-06-7 | | v | Х | | |
| SULFUR TRIDAIDE | 007446-11-9 | | | | | |
| | 007664-93-9 | | X | v | | |
| SULFURIC ACID, DIISOPKOPYL ESTER "S" | 002973-10-6 | | v | Х | | |
| SULFURIC ACID, FUMING, MISTS | 008014-95-7 | | | | | |
| TALC CONTAINING ASBESTIFORM FIBRES | 014807-96-6 | | | | | |
| TAMUXIFEN | 010540-29-1 | | | v | | |
| | 029767-20-2 | | | Х | | |
| TETRACHLORODIBENZO-para-DIOXIN, 2,3,7,8- (TCCD) "s" | 001/46-01-6 | | X | | | |
| | 000127-18-4 | | | X | | Х |
| TETRAETHYL LEAD "S" | 000078-00-2 | | | Х | | |
| | 000116-14-3 | | | | | |
| TETRANTROMETHANE | 000509-14-8 | | | X | | Х |
| THIAZOLE,2(2-FORMLYLHYDRAZIN0)-4-(5-NITRO-2-FURYL) | 003570-75-0 | | | X | | |
| THIOACETAMIDE | 000062-55-5 | | | X | | X |
| THIODIANILINE, 4,4'- | 000139-65-1 | | | Х | | Х |
| THIOTEPA | 000052-24-4 | | X | | X | |
| THIOURACIL | 000141-90-2 | | | Х | | |
| THIOUREA | 000062-56-6 | | | Х | | Х |
| THORIUM DIOXIDE | 001314-20-1 | | | | X | |
| TITANIUM DIOXIDE | 013463-67-7 | | | Х | | |
| TOBACCO PRODUCTS, SMOKELESS | 000000-00-0 | | X | | | |
| TOBACCO SMOKE | 00000-00-0 | | X | | X | |
| TOLUENE DIISOCYANATE, 1,3- | 026471-62-5 | | | Х | | Х |
| TOLUENE DIISOCYANATE, 2,4- | 000584-84-9 | | | Х | | |
| TOLUENE DIISOCYNATE, 2,6- | 000091-08-7 | | | Х | | |
| TOLUIDINE HYDROCHLORIDE, O- | 000636-21-5 | | | | | Х |

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LIST DOES NOT INCLUDE INDUSTRIAL PROCESSES, RADIATION, VIRUSES OR MEDICAL TREATMENT *Revised:* 11/2012

| | | | IAR | С | NTP | |
|--|-------------|------|---------|----|-----|-----------------|
| CHEMICAL NAME | CAS # | OSHA | 1 2A | 2B | A | В |
| TOLUIDINE, ORTHO- "s" | 000095-53-4 | | <u></u> | | | $-\overline{x}$ |
| TOXAPHENE (POLYCHLORINATED CAMPHENES) "s" | 008001-35-2 | ĺ | Ì | Х | Ì | Х |
| TREOSULPHAN | 000299-75-2 | | X | | | |
| TRICHLOROETHYLENE | 000079-01-6 | | X | | 1 | Х |
| TRICHLOROMETHINE | 000817-09-4 | | | Х | 1 | |
| TRICHLOROPHENOL, 2,4,6- "s" | 000088-06-2 | | | | 1 | Х |
| TRICHLOROPROPANE, 1,2,3- "s" | 000096-18-4 | | X | | | Х |
| TRIS (2,3-DIBROMOPROPYL)PHOSPHATE, (TRIS) "s" | 000126-72-7 | | X | | 1 | Х |
| TRP-P-1(3-AMINO-1,4-DIMETHYL-5H-PYRIDO[4,3-b]INDOLE) | 062450-06-0 | | | Х | 1 | |
| TRP-P-2(3-AMINO-1-METHYL-5H-PYRIDO[4,3-b]INDOLE) | 062450-07-1 | | | Х | | |
| TRYPAN BLUE | 000072-57-1 | | | Х | 1 | |
| URACIL MUSTARD | 000066-75-1 | | | Х | 1 | |
| URETHANE | 000051-79-6 | | X | | | Х |
| VINYL ACETATE | 000108-05-4 | | | Х | 1 | |
| VINYL BROMIDE | 000593-60-2 | | X | | X | |
| VINYL CHLORIDE | 000075-01-4 | X | X | | X | |
| VINYL FLUORIDE | 000075-02-5 | | X | | X | |
| VINYL-1-CYCLOHEXENE DIEPOXIDE, 4- "s" | 000106-87-6 | | | Х | | Х |
| VINYLCYCLOHEXENE, 4- | 000100-40-3 | | | Х | | |
| WELDING FUMES | 000000-00-0 | | | Х | X | |
| WOOD DUST | 013983-17-0 | | X | | X | |
| XYLIDINE "s" | 000087-62-7 | | | Х | | |
| ZALCITABINE | 007481-89-2 | | | Х | | |
| ZIDOVUDINE(AZT) | 030516-87-1 | | | Х | | |
| ZINC CHROMATE | 013530-65-9 | | X | | X | |
| ZINC CHROMATE (VI) HYDROXIDE | 001300-73-8 | | X | | X | |
| ZINC CHROMATE (VI) HYDROXIDE | 015930-94-6 | | X | | X | |
| ZIRCONIUM TETRACHLORIDE | 010026-11-6 | | X | | | |

REFERENCE:

International Agency for Rearch on Cancer, 2012, Overall Evaluations of Carcinogencity to Humans. (Monographs Volumes 1-106) Sax, Richard, 1999. Dangerous Properties of Industrial Materials.

National Toxicology Program, 2011. 12th Annual Report on Carcinogens.

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| | | IARC | | | NTP | | |
|--|-------------|------|------------|----|-----|---|--|
| CHEMICAL NAME | CAS # | OSHA | 1 2A | 2B | A | В | |
| | | | | | | | |
| ACID MISTS, STRONG INORGANIC | 000000-00-0 | | - <u>x</u> | | | | |
| ARECA NUT | 000000-00-0 | | X | | | | |
| ARISTOLOCHIC ACIDS | 000000-00-0 | | X | | X | | |
| BRACKEN FERN | 000000-00-0 | | | Х | | | |
| CERAMIC FIBERS (RESPIRABLE SIZE) | 000000-00-0 | | | Х | | | |
| CHLOROPHENOXY HERBICIDES "s" | 000000-00-0 | | | Х | | | |
| DIESEL EXHAUST | 000000-00-0 | | X | | | Х | |
| DIESEL FUEL MARINE | 000000-00-0 | | | Х | | | |
| GASOLINE, ENGINE EXHAUST FUMES | 000000-00-0 | | | Х | | | |
| GLASS FIBERS, SPECIALTY (E-GLASS, '475') | 000000-00-0 | | | Х | | | |
| GLASSWOOL (RESPIRABLE SIZE) | 000000-00-0 | | | Х | | Х | |
| HEXACHLOROCYCLOHEXANES "s" | 000000-00-0 | | | Х | | Х | |
| MINERAL OILS, UNTREATED AND MILDLY TREATED | 000000-00-0 | | X | | X | | |
| NICKEL COMPOUNDS | 000000-00-0 | | X | | X | | |
| POLYCHLOROPHENOLS AND THEIR SODIUM SALTS "s" | 000000-00-0 | | | Х | | Х | |
| POLYCYCLIC AROMATIC HYDROCARBONS | 000000-00-0 | | | | | Х | |
| REFRACTORY CERAMIC FIBERS | 000000-00-0 | | | Х | | | |
| ROCKWOOL | 000000-00-0 | | | Х | | | |
| SILICA, CRYSTALLINE (RESPIRABLE) | 000000-00-0 | | X | | X | | |
| SOOTS,TARS, MINERAL OILS | 000000-00-0 | | | | X | | |
| TOBACCO PRODUCTS, SMOKELESS | 000000-00-0 | | X | | | | |
| TOBACCO SMOKE | 000000-00-0 | | X | | X | | |
| WELDING FUMES | 000000-00-0 | | | Х | X | | |
| FORMALDEHYDE "s" | 000050-00-0 | X | X | | X | | |
| PHENOBARBITAL | 000050-06-6 | | | Х | | | |
| MITOMYCIN C | 000050-07-7 | | | Х | | | |
| CYCLOPHOSPHAMIDE "s" | 000050-18-0 | | Х | | | | |
| DDT "s" | 000050-29-3 | | | Х | | Х | |
| BENZO[a]PYRENE | 000050-32-8 | | X | | | Х | |
| RESERPINE | 000050-55-5 | | | | | Х | |
| PROPYLTHIOURACIL | 000051-52-5 | | | Х | | Х | |
| NITROGEN MUSTARD "s" | 000051-75-2 | | X | | | | |
| URETHANE | 000051-79-6 | | X | | | Х | |
| THIOTEPA | 000052-24-4 | | X | | X | | |
| DIBENZ[a,h]ANTHRACENE | 000053-70-3 | | X | | | Х | |
| ACETYLAMINOFLUORENE,2- | 000053-96-3 | X | | | | Х | |
| NITROSODIETHYLAMINE,N- | 000055-18-5 | | X | | | Х | |
| NITROGEN MUSTARD HYDROCHLORIDE "s" | 000055-86-7 | | | | | Х | |
| BUTANEDIOL DIMETHANESULPHONATE, 1, 4- (BUSULFAN) | 000055-98-1 | | X | | X | | |
| METHYLTHIOURACIL | 000056-04-2 | | | Х | | | |
| CARBON TETRACHLORIDE "s" | 000056-23-5 | | | Х | | Х | |
| DIETHYLSTILBOESTROL "s" | 000056-53-1 | | X | | X | | |
| BENZ[a]ANTHRACENE "s" | 000056-55-3 | | | Х | | Х | |
| CHLORAMPHENICOL | 000056-75-7 | | X | | X | | |
| DIMETHYLHYDRAZINE, 1,1- "s" | 000057-14-7 | | | Х | | Х | |
| PHENYTOIN | 000057-41-0 | | | Х | | Х | |
| PROPIOLACATONE, BETA | 000057-57-8 | X | | Х | | Х | |
| CHLORDANE "s" | 000057-74-9 | | | Х | | | |
| PROGESTERONE | 000057-83-0 | | | | | Х | |
| HEXACHLOROBENZENE, GAMMA "s" | 000058-89-9 | | | | | Х | |
| NITROSOMORPHOLINE, N- | 000059-89-2 | | | Х | | Х | |
| AMINOAZOBENZENE, para- | 000060-09-3 | | | Х | | | |
| DIMETHYLAMINOAZOBENZENE, PARA | 000060-11-7 | X | | Х | | Х | |

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| | | | IAR | С | NTF | 2 |
|--|-------------|-------|-------|------------|-------|--------|
| CHEMICAL NAME | CAS # | OSHA | 1 2A | 2B | A | В |
| | | | | - <u>-</u> | | |
| | 000000-33-3 | | 1 | л v | | |
| AMITROLE | 000001-37-4 | | 1 | Λ | 1 | v |
| | 000001-82-3 | | | | | A V |
| PHENAUETIN ETHVI METHANEQUI EONATE | 000062-44-2 | | | v | | A V |
| | 000062-50-0 | | | A V | | A V |
| THOACETAMIDE | 000062-55-5 | | | A | | A V |
| THIOUREA | 000062-56-6 | | | X | | Х |
| DICHLORVOS "s" | 000062-73-7 | 1 37 | 1 17 | Х | | |
| NITROSODIMETHYLAMINE,N- | 000062-75-9 | | | | | X |
| PHENOX Y BENZAMINE H Y DROCHLORIDE | 000063-92-3 | | | Х | | X |
| DIETHYL SULFATE "s" | 000064-67-5 | | | | | X |
| METHYL METHANESULPHONATE | 000066-27-3 | | | | | Х |
| URACIL MUSTARD | 000066-75-1 | | | Х | | |
| CHLOROFORM | 000067-66-3 | | | Х | | Х |
| HEXACHLOROETHANE | 000067-72-1 | | | Х | | Х |
| NORETHISTERONE | 000068-22-4 | | | | | Х |
| METHYL-N-NITRO-N'-NITROSOGUANIDINE,N- (MNNG) | 000070-25-7 | | X | | | Х |
| BENZENE "s" | 000071-43-2 | X | X | | X | |
| COBALT ACETATE | 000071-48-7 | | | Х | | |
| MEDROXYPROGESTERONE ACETATE | 000071-58-9 | | | Х | | |
| TRYPAN BLUE | 000072-57-1 | | | Х | | |
| VINYL CHLORIDE | 000075-01-4 | X | X | | X | |
| VINYL FLUORIDE | 000075-02-5 | | X | | X | |
| ACETALDEHYDE | 000075-07-0 | | | Х | | Х |
| DICHLOROMETHANE | 000075-09-2 | | | Х | | Х |
| ETHYLENE OXIDE | 000075-21-8 | X | X | | X | |
| BROMODICHLOROMETHANE | 000075-27-4 | | | Х | | Х |
| NITROMETHANE | 000075-52-5 | | | Х | | Х |
| METHYLAZIRIDINE, 2- (PROPYLENEIMINE) "s" | 000075-55-8 | | | Х | | Х |
| PROPYLENE OXIDE "s" | 000075-56-9 | | | Х | | Х |
| DIMETHYLARSENIC ACID | 000075-60-5 | | | Х | | |
| HEPTACHLOR "s' | 000076-44-8 | | | Х | | |
| PHENOTHALEIN | 000077-09-8 | | | | | Х |
| DIMETHYL SULFATE | 000077-78-1 | | X | | | Х |
| TETRAETHYL LEAD "s" | 000078-00-2 | | | Х | | |
| ISOPRENE | 000078-79-5 | | | Х | | Х |
| TRICHLOROETHYLENE | 000079-01-6 | | X | | | Х |
| ACRYLAMIDE "s" | 000079-06-1 | | X | | 1 | Х |
| DICHLOROACETIC ACID "s" | 000079-43-6 | Ì | ĺ | Х | Ì | Х |
| DIMETHYLCARBAMOYL CHLORIDE | 000079-44-7 | Ì | X | | Ì | Х |
| NITROPROPANE, 2- | 000079-46-9 | Ì | ĺ | Х | Ì | Х |
| SACCHARIN | 000081-07-2 | Ì | ĺ | Х | Ì | |
| AMINO-2,4-DIBROMOANTHRAQUINONE,1- | 000081-49-2 | İ | | Х | i | Х |
| AMINO-2-METHYLANTHRAQUINONE, 1- | 000082-28-0 | İ | | | i | Х |
| XYLIDINE "s" | 000087-62-7 | İ | I | Х | i | |
| TRICHLOROPHENOL. 2.4.6- "s" | 000088-06-2 | 1 | | | i | Х |
| NITROTOLUENE, 2- | 000088-72-2 | 1 | X | | i | Х |
| ANISIDINE, ortho- "s" | 000090-04-0 | 1 | | Х | i | |
| MICHLER'S KETONE | 000090-94-8 | 1 | | | i | х |
| TOLUENE DIISOCYNATE, 2.6- | 000091-08-7 | 1 | í | х | i | |
| NAPHTHALENE | 000091-20-3 | i | | X | i | х |
| NITROANISOLE. 2- | 000091-23-6 | i | | x | i | x |
| NAPHTHYLAMINE.2- "s" | 000091-59-8 | X | X | | x | |
| DICHLOROBENZIDINE.3.3'- "s" | 000091-94-1 | X | | х | | x |
| AMINOBIPHENYL 4- "s" | 000092-67-1 | X | x | •• | x | |
| inition fibrilly 5 | 000072-07-1 | 1 2 2 | 1 2 1 | | 1 2 2 | |

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| CHEMICAL NAME | CAS # | OSHA | IAR 1 2A | C 2B | NTP | В |
|--|--------------|------|---------------|---------|-----|--------|
| BENZIDINE "s" | 000092-87-5 | | <u> </u> | | | |
| BENZIDINE-BASED DYES "s" | 000092-87-5 | 1 | X | | i | |
| NITROBIPHENYL4- | 000092-93-3 | X | | | i | |
| METHYLEUGENOL | 000093-15-2 | 1 | 1 | Х | i | х |
| DIHYDROSAFROLE | 000094-58-6 | 1 | | x | 1 | |
| SAFROLE | 000094-59-7 | 1 | | x | 1 | х |
| SIII FALLATE "s" | 000095-06-7 | 1 | 1 | x | x | |
| TOLUIDINE ORTHO- "s" | 000095-53-4 | 1 | X | | | х |
| CHLORO-ortho-TOLUIDINE para- | 000095-69-2 | 1 | X | | 1 | x |
| DIAMINOTOLUENE, 2.4- | 000095-80-7 | 1 | | х | i | X |
| CHLORO-ortho-PHENYLENEDIAMINE 4- | 000095-83-0 | 1 | 1 | x | i | x |
| STYRENE-7 8-OXIDE "s" | 000096-09-3 | 1 | X | | 1 | |
| DIBROMO-3-CHLOROPROPANE 1 2- "s" (DBCP) | 000096-12-8 | X | | х | 1 | x |
| DIBROMO-1-PROPANOL 2 3- | 000096-12-9 | | 1 | | 1 | x |
| TRICHLOROPROPANE 1 2 3- "s" | 000096-18-4 | 1 | x | | 1 | x |
| DICHLORO-2-PROPANOL, 1 3- "s" | 000096-23-1 | 1 | | х | 1 | |
| MONOCHLORO-1 2-PROPANEDIOL 3- "s" | 000096-24-2 | 1 | | x | 1 | |
| ETHYLENE THIOLIREA | 000096-45-7 | 1 | 1 | | 1 | x |
| ARSONIC ACID | 000097-44-9 | x | X | | x | 21 |
| AMINOAZOTOLUENE ortho- | 000097-44-9 | 11 | | x | 21 | x |
| RENZOTRICHI ORIDE (COMBINED EXPOSURE W/ RENZOVI, CHI ORIDE) "«" | 000097-50-5 | | X | 21 | 1 | 21 |
| BENZOT KICHLOKIDE (COMDINED EXTOSORE W/ BENZOT E CHEORIDE) S | 000098-07-7 | | | | | v |
| METHVI STVRENE ALPHA | 000098-07-7 | | | x | | Λ |
| RENZAL CHLORIDE (COMBINED EXPOSURE W/ BENZOVL CHLORIDE) | 000098-87-3 | | X | Λ | 1 | |
| BENZAL CHLORIDE (COMBINED EXPOSURE W/ DENZOTE CHLORIDE) | 0000008 88 4 | | | | 1 | |
| NITPORENZENE "s" | 000098-88-4 | | | v | | v |
| VINVLOVCI OHEXENE 4- | 000098-95-3 | | 1 | л Х | | Λ |
| STVDENE "a" | 000100-40-3 | | 1 | л v | | v |
| DENZVI CHI ODIDE (COMDINED EVDOSUDE W/ DENZOVI CHI ODIDE) | 000100-42-3 | | | Λ | | Λ |
| NITROSODIDEDIDINE N | 000100-44-7 | | | v | | v |
| METHYLENE DIS(2 CHI ODOANII INE) 4.4 (MOCA) "e" | 000100-75-4 | | | Λ | | л v |
| METHVI ENEDIS(2-CHLOROANILLINE), 4,4- (MOCA) S METHVI ENEDIS(NIN DIMETHVI \DEN/ZENAMINE | 000101-14-4 | | | v | | л v |
| METHYLENEDIANII INE 4 4' | 000101-01-1 | | 1 | л V | | л v |
| DIAMINODIDHENVI ETHED 44 | 000101-77-9 | | 1 | л V | | A V |
| DIAMINODITAENTEETIER | 000101-80-4 | | 1 | A V | | л v |
| CHI ODOANII INE para "a" | 000101-90-0 | | 1 | A V | | Λ |
| VINVL 1 CVCLOHEVENE DIEDOVIDE 4 "" | 000106-47-8 | | 1 | A V | | v |
| EDOXVDUTANE 1.2 | 000100-87-0 | | 1 | A V | | Λ |
| EPUAIDUIANE, 1,2- | 000106-88-7 | | | Λ | | v |
| EFICILOROH I DRIN S | 000106-89-8 | | | | | л v |
| DITADIENE 1 2 | 000106-95-4 | | | | | л |
| DUTADIENE,1,5- | 000100-99-0 | | | v | | |
| ACDVI ONITEDI E "a" | 000107-00-2 | | 1 | A V | | v |
| AUXILUMITRILE S CHEODOMETHIZI ETHED DIG "a" (TECHNICAL ODADE) | 000107-15-1 | | | Λ | | л |
| UNIXL A OFTATE | 000107-50-2 | | | v | | |
| VINILAUEIAIE METUVI ISODUTVI KETONE | 000108-05-4 | | | A V | | |
| METHYL ISOBUTYL KETONE | 000108-10-1 | | | X | | v |
| | 000110-00-9 | | | X | | Х |
| | 000111-42-2 | | | X | | |
| AZASERINE | 000115-02-6 | | | X | | |
| CHLOKENDIC ACID | 000115-28-6 | | 1 | Х | | Х |
| TETRAFLUOROETHYLENE | 000116-14-3 | 1 | 1 | | X | |
| ANTHRAQUINONE, 1,8-DIHYDROXY | 000117-10-2 | | 1 | Х | 1 | Х |
| AMINOANTHRAQUINONE, 2- | 000117-79-3 | | 1 | | 1 | Х |
| DI(2-ETHYLHEXYL)PHTHALATE | 000117-81-7 | | | Х | 1 | Х |
| HEXACHLOROBENZENE "s" | 000118-74-1 | | | Х | | Х |

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| CHEMICAL NAME | CAS # | OSHA | IAR 1 2A | C 2B | NTP | В |
|--|-------------|------|---------------|------------|-----|---|
| BENZOPHENONE | 000119-61-9 | | | - <u>-</u> | | |
| DIMETHOXYBENZIDINE 3.3'- (0-DIANISIDINE) | 000119-90-4 | | 1 | x | 1 | x |
| DIMETHYL BENZIDINE 3 3'- (0-TOLIDINE) "s" | 000119-93-7 | | 1 | x | i | X |
| CRESIDINE para- | 000120-71-8 | | 1 | x | i | x |
| CATECHOL "s" | 000120-80-9 | | 1 | x | i | |
| DINITROTOLUENE, 2.4- "s' | 000121-14-2 | | 1 | X | i | |
| PHENYL GLYCIDYL ETHER "s" | 000122-60-1 | | 1 | x | i | |
| HYDRAZOBENZENE | 000122-66-7 | | 1 | | i | х |
| DIOXANE. 1.4- "s" | 000123-91-1 | | Ì | Х | i | X |
| METHYLARSONIC ACID | 000124-58-3 | | Ì | Х | i | |
| GRISEOFULVIN | 000126-07-8 | | ' | Х | i | |
| TRIS (2,3-DIBROMOPROPYL)PHOSPHATE, (TRIS) "s" | 000126-72-7 | | X | | i | Х |
| NITROGEN MUSTARD N-OXIDE | 000126-85-2 | | ĺ | Х | i | |
| CHLOROPRENE "s" | 000126-99-8 | | i | Х | i | Х |
| TETRACHLOROETHYLENE "s" | 000127-18-4 | | ĺ | Х | i | Х |
| SACCHARIN, SODIUM SALT | 000128-44-9 | | ĺ | Х | i | |
| METHYL-1-NITROANTHRAQUINONE, 2- (UNCERTAIN PURITY) | 000129-15-7 | i | i | Х | i | |
| SODIUM ortho-PHENYLPHENATE | 000132-27-4 | Ì | Í | Х | i | |
| ANISIDINE HYDROCHLORIDE, 0- | 000134-29-2 | i | Í | | i | Х |
| NAPHTHYLAMINE,ALPHA- "s" | 000134-32-7 | X | Í | | i | |
| CUPFERRON | 000135-20-6 | | l | | Ì | Х |
| DIAMINOBENZENE | 000136-35-6 | i | Í | | i | Х |
| DIAZOAMINOBENZENE | 000136-35-6 | | Ì | | Ì | Х |
| PHENAZOPYRIDINE HYDROCHLORIDE | 000136-40-3 | | Ì | Х | Ì | Х |
| NITRILOTRIACETIC ACID AND SALTS | 000139-13-9 | | | Х | 1 | Х |
| THIODIANILINE, 4,4'- | 000139-65-1 | | | Х | | Х |
| ARAMITE | 000140-57-8 | | | Х | | |
| ETHYL ACRYLATE "s" | 000140-88-5 | | | Х | | |
| THIOURACIL | 000141-90-2 | | | Х | | |
| KEPONE (CHLORDECONE) "s" | 000143-50-0 | | | Х | | Х |
| MELPHALAN | 000148-82-3 | | X | | X | |
| AZIRIDINE "s" | 000151-56-4 | | | Х | | |
| BISCHLOROETHYL NITROSOUREA (BCNU) | 000154-93-8 | | X | | | Х |
| DIBENZO[a,i]PYRENE | 000189-55-9 | | | Х | | Х |
| DIBENZO[a,h]PYRENE | 000189-64-0 | | | Х | | Х |
| DIBENZO[a,l]PYRENE | 000191-30-0 | | X | | | Х |
| DIBENZO[a,e]PYRENE | 000192-65-4 | | | | | Х |
| INDENO[1,2,3-cd]PYRENE | 000193-39-5 | | | Х | | Х |
| DIBENZO[c,g]CARBAZOLE, 7H- | 000194-59-2 | | X | | | Х |
| BENZ[c]PHENANTHRENE | 000195-19-7 | | | Х | | |
| BENZ[j]ACEANTHRYLENE | 000202-33-5 | | | Х | | |
| BENZO[j]FLUORANTHENE | 000205-82-3 | | | Х | | Х |
| BENZO[b]FLUORANTHENE | 000205-99-2 | | | X | ļ | Х |
| BENZO[k]FLUORANTHENE | 000207-08-9 | | | Х | | Х |
| CHRYSENE | 000218-01-9 | | | Х | | |
| DIBENZ[a,j]ACRIDINE | 000224-42-0 | | | •• | ! | Х |
| DIBENZ[c,h]ACRIDINE | 000224-53-3 | | | Х | ! | |
| DIBENZ[a,h]ACRIDINE | 000226-36-8 | | | •• | 1 | Х |
| BENZUFUKAN | 000271-89-6 | | | Х | 1 | |
| | 000299-75-2 | | | | 1 | |
| LEAD ACETATE | 000301-04-2 | | | | 1 | X |
| HYDRAZINE "s" | 000302-01-2 | | | X | 1 | Х |
| LASIUCAKPINE | 000303-34-4 | | | X | 1 | |
| UCHKATUXIN A | 000303-47-9 | | | Х | | Х |
| CHLORAMBUCIL | 000305-03-3 | | X | | X | |

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| CHEMICAL NAME | CAS # | OSHA | IAI 1 2A | RC 2B | NTP | В |
|--|-------------|------|---------------|----------|-----|---|
| MONOCROTALINE | 000315-22-0 | | | | | |
| LINDANE, ALPHA | 000319-84-6 | i | i | | i | Х |
| LINDANE, BETA | 000319-85-7 | i | i | | i | Х |
| AZACYTIDINE | 000320-67-2 | i | X | | i | |
| CAFFEIC ACID | 000331-39-5 | i | i | Х | i | |
| PROCARBAZINE HYDROCHLORIDE | 000366-70-1 | i | X | | i | Х |
| NICKEL (II) ACETATE (1:2) | 000373-02-4 | i | X | | X | |
| OXYMETHOLONE | 000434-07-1 | i | i | | i | Х |
| CONESTORAL | 000438-67-5 | i | i | | X | |
| METRONIDAZOLE | 000443-48-1 | i | i | Х | i | Х |
| AZATHIOPRINE | 000446-86-6 | i | X | | X | |
| METHOXYPSORALEN.5- | 000484-20-8 | i | X | | i | |
| AURAMINE | 000492-80-8 | i | i | Х | i | |
| NAPHTHLYAMINE.N.N-BIS(2CHLOROETHYL)-2- | 000494-03-1 | i | X | | i | |
| MUSTARD GAS "s" | 000505-60-2 | i | X | | X | |
| TETRANITROMETHANE | 000509-14-8 | i | i | Х | i | Х |
| CHLORO-2-METHYLPROPENE.1- | 000513-37-1 | i | i | Х | i | Х |
| CADMIUM CARBONATE | 000513-78-0 | X | X | | X | |
| COBALT CARBONATE | 000513-79-1 | 1 | 1 | Х | 1 | |
| MERPHALAN | 000531-76-0 | i | i | X | i | |
| N-[4-(5-NITR-2-FURYL)-2-THIAZOLYL]ACETAMIDE | 000531-82-8 | i | i | X | i | |
| DICHLOROPROPENE, 1.3- (TECHNICAL-GRADE) "s" | 000542-75-6 | i | i | X | i | х |
| CHLOROMETHYL ETHER BIS- "s" | 000542-88-1 | X | X | | x | |
| NITROFURFURYLIDIENE(5)-AMINO-2-IMIDAZOLIDINONE, 1- | 000555-84-0 | 1 | 1 | Х | 1 | |
| GLYCIDOL "s" | 000556-52-5 | i | i x | | i | х |
| CHLORO-2-METHYLPROPENE. 3- | 000563-47-3 | i | 1 | | i | X |
| CI BASIC RED 9 | 000569-61-9 | i | i | Х | i | X |
| TOLUENE DIISOCYANATE, 2.4- | 000584-84-9 | i | i | X | i | |
| METHYLAZOXYMETHANOL ACETATE | 000592-62-1 | i | i | X | i | |
| VINYL BROMIDE | 000593-60-2 | i | i x | | x | |
| NITROACENAPHTHENE, 5- | 000602-87-9 | i | i | Х | i | |
| OXAZEPAM | 000604-75-1 | i | i | X | i | |
| NITROFLUORENE, 2- | 000607-57-8 | i | i | Х | i | |
| HEXACHLOROHEXANE (ALL ISOMERS) | 000608-73-1 | i | i | Х | i | Х |
| DICHLOROBENZIDINE, DIHYDROCHLORIDE, 3,3'- | 000612-83-9 | i | i | | i | Х |
| DIACETYLBENZIDINE.N.N'- | 000613-35-4 | i | i | Х | i | |
| DIAMINOANISOLE, 2,4- (AND ITS SALTS) | 000615-05-4 | i | i | Х | i | |
| METHY-N-NITROSOURETHANE.n- | 000615-53-2 | i | i | Х | i | |
| NITROSODI-n-PROPYLAMINE. n- | 000621-64-7 | i | i | Х | i | Х |
| DIBROMOACETIC ACID "s" | 000631-64-1 | i | i | Х | i | |
| MAGENTA (CONTAINING CI BASIC RED 9) | 000632-99-5 | i | i | Х | i | |
| TOLUIDINE HYDROCHLORIDE. O- | 000636-21-5 | i | i | | i | Х |
| HEXAMETHYLPHOSPHORAMIDE "s" | 000680-31-9 | i | i | Х | i | Х |
| METHYL-N-NITROSOUREA.n- | 000684-93-5 | i | X | | i | Х |
| METHYLIMIDAZOLE. 2- | 000693-98-1 | i | i | Х | i | |
| AMINO-5-(5-NITRO-2-FURYL)-1,3,4-THIADIAZOLE, 2- | 000712-68-5 | i | i | Х | i | |
| ETHYL-N-NITROSOUREA,N- | 000759-73-9 | i | X | | i | Х |
| GLYCIDALDEHYDE "s" | 000765-34-4 | i | i - | Х | i | |
| PANFURAN containing DIHYDROXMETHYLFURATRIZINE | 000794-93-4 | i | í | Х | i | |
| TRICHLOROMETHINE | 000817-09-4 | i | i | Х | i | |
| METHYLIMIDAZOLE, 4- "s" | 000822-36-6 | Ì | | Х | 1 | |
| METHYLENE BIS(2-METHYLANILINE), 4,4'- | 000838-88-0 | | | Х | | |
| COBALT TRIACETATE | 000917-69-1 | Ì | | Х | 1 | |
| NITROSODI-n-BUTYLAMINE, N- | 000924-16-3 | Ì | | Х | 1 | Х |
| NITROSOPYRROLIDINE, N- | 000930-55-2 | | | Х | | Х |
| | | | | | | |

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|---|-------------|------|---------------|----------------|-----|---|
| HEPTACHLOR EPOXIDE "s" | 001024-57-3 | | | $-\frac{1}{x}$ | | |
| CHROMIUM TRIACETATE | 001066-30-4 | | x | | X | |
| NITROSODIETHANOLAMINE, N- | 001116-54-7 | | | х | 1 | х |
| PROPANE SULTONE, 1.3- "s" | 001120-71-4 | 1 | 1 | X | i | X |
| AFLATOXIN B1 | 001162-65-8 | 1 | x | | i | |
| NICKEL BISCYCLOPENDADIENE | 001271-28-9 | 1 | X | | X | |
| ZINC CHROMATE (VI) HYDROXIDE | 001300-73-8 | 1 | X | | X | |
| BERYLLIUM ALUMINUM SILICATE | 001302-52-9 | | X | | X | |
| GALLIUM ARSENIDE | 001303-00-0 | | X | | 1 | |
| ARSENIC PENTOXIDE | 001303-28-2 | X | X | | X | |
| BERYLLJUM OXIDE | 001304-56-9 | | x | | X | |
| CADMIUM OXIDE | 001306-19-0 | X | X | | X | |
| CADMIUM SULFIDE | 001306-23-6 | X | X | | X | |
| COBALT HYDROXIDE | 001307-86-4 | | | х | i | |
| COBALT(2+) OXIDE | 001307-96-6 | | , I | Х | i | |
| COBALT (III) OXIDE | 001308-04-9 | | , I | Х | i | |
| COBALT OXIDE | 001308-06-1 | Ì | I | Х | i | |
| CHROMIUM (III) OXIDE (2:3) | 001308-38-9 | | X | | X | |
| NICKEL (II) OXIDE (1:1) | 001313-99-1 | | X | | X | |
| THORIUM DIOXIDE | 001314-20-1 | | | | X | |
| COBALT (2+) SULFIDE | 001317-42-6 | | I | Х | i | |
| SILICA, CRYSTALLINE TRIPOLI | 001317-95-9 | | X | | X | |
| ARSENIC TRIOXIDE | 001327-53-3 | X | X | | X | |
| FOWLER'S SOLUTION | 001332-10-1 | Ì | X | | i | |
| ASBESTOS | 001332-21-4 | X | X | | X | |
| CHROMIUM (VI) OXIDE (1:3) | 001333-82-0 | i | X | | X | |
| CARBON BLACK | 001333-86-4 | i | İ | Х | i | |
| POLYCHLORINATED BIPHENYLS | 001336-36-3 | i | X | | i | Х |
| AFLATOXINS | 001402-68-2 | i | X | | X | |
| DIEPOXYBUTANE "s" | 001464-53-5 | i | İ | | i | Х |
| DIETHYLHYDRAZINE, 1,2- | 001615-80-1 | i | I | Х | i | |
| BENZYL VIOLET 4B | 001694-09-3 | ĺ | | Х | Í | |
| TETRACHLORODIBENZO-para-DIOXIN, 2,3,7,8- (TCCD) "s" | 001746-01-6 | ĺ | X | | X | |
| NITROFEN (TECHNICAL-GRADE) "s" | 001836-75-5 | 1 | | Х | Ì | Х |
| CHLOROTHALONIL | 001897-45-6 | | | Х | 1 | |
| DIRECT BLACK 38 | 001937-37-7 | 1 | | | X | |
| MIREX "s" | 002385-85-5 | | | Х | | Х |
| CAPTAFOL | 002425-06-1 | | X | | X | |
| CI DIRECT BLUE 15 | 002429-74-5 | | | Х | | |
| DISPERSE BLUE 1 | 002475-45-8 | | | Х | | Х |
| DIRECT BLUE 6 | 002602-46-2 | | | | X | |
| OIL ORANGE SS | 002646-17-5 | | | Х | | |
| HC BLUE 1 | 002784-94-3 | | | Х | | |
| SULFURIC ACID, DIISOPROPYL ESTER "s" | 002973-10-6 | | | Х | | |
| BUTYROLACTONE,BETA- | 003068-88-0 | | | Х | | |
| CHLORO-O-TOLUIDINE HYDROCHLORIDE, 4- | 003165-93-3 | | | | | Х |
| DIBROMOACETONITRILE "s" | 003252-43-5 | | | Х | | |
| PROPANEDIOL,2,2-BIS-(BROMOETHYL)-1,3- | 003296-90-0 | | | Х | | Х |
| NICKEL (II) CARBONATE (1:1) | 003333-67-3 | | X | | X | |
| PONCEAU 3R | 003564-09-8 | | | Х | | |
| THIAZOLE,2(2-FORMLYLHYDRAZIN0)-4-(5-NITRO-2-FURYL) | 003570-75-0 | | | Х | | |
| FURYLAMIDE | 003688-53-7 | | | Х | | |
| METHYLCHRYSENE, 5- | 003697-24-3 | | | Х | | Х |
| PONCEAU MX | 003761-53-3 | | | Х | | |
| NAFENOPIN | 003771-19-5 | | | Х | | |

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"s" - readily absorbed through the skin

NTP (NATIONAL TOXICOLOGY PROGRAM) A -- KNOWN TO BE CARCINOGENS B -- REASONABLY ANTICIPATED TO BE

CARCINOGENS

| | | | IAR | <u>с</u> | NTE | |
|---|-------------|------|------|----------|-----|---|
| CHEMICAL NAME | CAS # | OSHA | 1 2A | 2B | A | В |
| OXAZOLIDININE,2,5-(MORPHOLINOMETHYL)-3-[(5-NITROFURYLIDENE)AMINO- | 003795-88-8 | | | X | | |
| NITROSOBUTYLBUTANOLAMINE,N- | 003817-11-6 | | | | | Х |
| DACARBAZINE | 004342-03-4 | | | Х | | Х |
| NITROSOMETHYLVINYLAMINE, N- | 004549-40-0 | | | Х | | Х |
| NITRILOTRIACETIC ACID, TRISODIUM SALT | 005064-31-3 | | | Х | | Х |
| CHLORDANE, ALPHA "s" | 005103-71-9 | | | Х | | |
| CHLORDANE, BETA "s" | 005103-74-2 | | | Х | | |
| NITROPYRENE, 1- | 005522-43-0 | | X | | | Х |
| CHLORDANE, GAMMA "s" | 005566-34-7 | | | Х | | |
| CYCLOPHOSPHAMIDE "s" | 006055-19-2 | | X | | X | |
| LEAD ACETATE (II) TRIHYDRATE | 006085-56-4 | | X | | | Х |
| COBALT (II) ACETATE | 006147-53-1 | | | Х | | |
| CITRUS RED NO. 2 | 006358-53-8 | | | Х | | |
| CI ACID RED 114 | 006485-34-3 | | | Х | | |
| AFLATOXIN M1 | 006795-23-9 | | | Х | | |
| PIPERAZINE ESTRONE SULFATE | 007280-37-7 | | | | X | |
| LEAD AND COMPOUNDS | 007439-92-1 | | X | | | Х |
| NICKEL, METALLIC AND ALLOYS | 007440-02-0 | | | Х | X | |
| ARSENIC AND COMPOUNDS | 007440-38-2 | X | X | | X | |
| BERYLLIUM AND COMPOUNDS | 007440-41-7 | | X | | X | |
| CADMIUM AND COMPOUNDS | 007440-43-9 | X | X | | X | |
| CHROMIUM, HEXAVALENT AND COMPOUNDS | 007440-47-3 | | X | | X | |
| COBALT AND COMPOUNDS | 007440-48-4 | | | Х | | |
| SULFUR TRIOXIDE | 007446-11-9 | | X | | | |
| LEAD PHOSPHATE | 007446-27-7 | | X | | | Х |
| ZALCITABINE | 007481-89-2 | | | Х | | |
| NITROCHRYSENE, 6- | 007496-02-8 | | X | | | Х |
| ARSENIC ACID, SODIUM SALT | 007631-89-2 | X | X | | X | |
| COBALT(II) CHLORIDE | 007646-79-9 | | | Х | | |
| SULFURIC ACID | 007664-93-9 | | X | | | |
| POTASSIUM BROMATE | 007758-01-2 | | | Х | | |
| LEAD CHROMATE | 007758-97-6 | | X | | X | |
| CHROMIC ACID, DISODIUM SALT "s" | 007775-11-3 | | X | | X | |
| ARSENIC ACID | 007778-39-4 | X | X | | X | |
| ARSENIC ACID, CALCIUM SALT (2:3) | 007778-44-1 | X | X | | X | |
| POTASSIUM DICHROMATE (VI) | 007778-50-9 | | X | | X | |
| ARSENIC TRICHLORIDE "s" | 007784-34-1 | X | X | | X | |
| ARSENIC PENTAFLUORIDE | 007784-36-3 | X | X | | X | |
| ARSENIC ACID, LEAD(2+) SALT (1:1) | 007784-40-9 | X | X | | X | |
| ARSENIC ACID, MONOPOTASSIUM SALT | 007784-41-0 | X | X | | X | |
| ARSENIUOS ACID, MONOSODIUM SALT | 007784-46-5 | X | X | | X | |
| BERYLLIUM CHLORIDE | 007787-47-5 | | X | | X | |
| BERYLLIUM FLUORIDE | 007787-49-7 | | X | | X | |
| BERYLLIUM SULFATE, TETRAHYDRATE (1:1:4) | 007787-56-6 | | X | | X | |
| POTASSIUM CHROMATE (VI) | 007789-00-6 | | X | | X | |
| CHROMIUM PHOSPHATE | 007789-04-0 | | X | | X | |
| STRONTIUM CHROMATE (VI) | 007789-06-2 | | X | | X | |
| AMMONIUM DICHROMATE (VI) "s" | 007789-09-5 | | X | | X | |
| COBALT(II) CHLORIDE, HEXAHYDRATE | 007791-13-1 | | | Х | | |
| TOXAPHENE (POLYCHLORINATED CAMPHENES) "s" | 008001-35-2 | | l | Х | | Х |
| CREOSOTES | 008001-58-9 | | X | | X | |
| GASOLINE "s" | 008006-61-9 | | l | Х | | |
| COAL-TAR "s" | 008007-45-2 | | X | | X | |
| SULFURIC ACID, FUMING, MISTS | 008014-95-7 | | X | | | |
| CREOSOTE, WOOD | 008021-39-4 | | | | X | |

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| | | | IAR | С | NTF |) |
|--|-------------|-------|------|--------------|-----|----|
| CHEMICAL NAME | CAS # | OSHA | 1 2A | 2B | A | В |
| CARRAGEENAN DEGRADED | 009000-07-1 | | | - <u>x</u> - | | |
| IRON-DEXTRAN COMPLEX | 009004-66-4 | 1 | 1 | x | 1 | х |
| BLEOMYCIN SULFATE | 009041-93-4 | | | X | 1 | |
| ZIRCONIUM TETRACHLORIDE | 010026-11-6 | 1 | X | | 1 | |
| COBALT DINITRATE HEXAHYDRATE | 010026-22-9 | 1 | | х | 1 | |
| HYDRAZINE SULFATE (1:1) "s" | 010034-93-2 | 1 | 1 | | 1 | х |
| RADON AND ITS DECAY PRODUCTS | 010043-92-2 | 1 | X | | x | |
| STERIGMATOCYSTIN | 010048-13-2 | 1 | | х | | |
| ARSENIC ACID DISODIUM SALT. HEPTAHYDRATE | 010048-95-0 | X | X | | x | |
| CADMIUM CHLORIDE "s" | 010108-64-2 | X | X | | X | |
| CADMIUM SULFATE (1:1) | 010124-36-4 | X | X | | X | |
| COBALT(II) SULFATE (1.1) | 010124-43-3 | | | х | | х |
| ARSENEOUS ACID POTASSIUM SALT | 010124-50-2 | X | X | | x | |
| COBALT(II) NITRATE (1.2) | 010141-05-6 | | | x | | |
| COBALT DI-MU-CARBONYLNONACARBONYL | 010210-68-1 | 1 | 1 | x | 1 | |
| BARIUM CHROMATE(VI) | 010294-40-3 | 1 | x | 11 | x | |
| CADMIUM NITRATE | 010325-94-7 | X | X | | X | |
| TAMOXIFEN | 010540-29-1 | 11 | 11 | | | |
| SODIUM DICHROMATE (VI) "s" | 010588-01-9 | | x | | | |
| NITROSOMETHYLETHYL AMINE N- | 010595-95-6 | | 21 | x | 11 | |
| BIFOMYCINS | 011056-06-7 | 1 | 1 | x | 1 | |
| PCB (AROCLOR 1260) | 011096-82-5 | 1 | X | Λ | 1 | v |
| PCB (AROCLOR 1254) | 011097-69-1 | 1 | | | 1 | x |
| CHROMATE(1.) HYDROXYOCTAOXODIZINCATEDI. POTASSIUM | 011103-86-9 | 1 | | | x | 21 |
| NICKEL HYDROXIDE | 011113-74-9 | 1 | X | | | |
| COBALT ALLOY CO CR | 011114-92-4 | 1 | | v | | |
| ASBESTOS CROCIDOLITE | 012001-28-4 | | X | Α | | |
| ASBESTOS, CHRVSOTILE | 012001-20-5 | | X | | | |
| COBALT HYDROXIDE OXIDE | 012001-27-5 | | | v | | |
| NICKEL SULFIDE (3:2) | 012010 00 7 | 1 | x | 21 | x | |
| NICKEL (II) HYDROXIDE | 012054-48-7 | 1 | X | | | |
| $COBALT (MU(CARBONATO(2_), O(O')))DIHYDROXYDI$ | 012054-48-7 | 1 | | x | | |
| NICKEL (III) HYDROXIDE | 012125-56-3 | 1 | x | 21 | x | |
| ASBESTOS AMOSITE | 012122-53-5 | X | X | | X | |
| PALYGORSKITE (fibers > 5 micrometers) | 012172-13-3 | 11 | 11 | x | 21 | |
| SENARMONITE | 012412-52-1 | 1 | 1 | x | 1 | |
| COBALT CARBONATE COBALT DIHYDROXIDE (2.3) | 012602-23-2 | 1 | 1 | x | 1 | |
| COBALT-CHROMIUM-MOLYBDENUM ALLOY | 012629-02-6 | 1 | 1 | x | X | |
| COBALT-CHROMIUM-NICKEL-TUNGSTEN ALLOY | 012638-07-2 | 1 | 1 | x | X | |
| BERYLLIUM ALUMINUM ALLOY | 012770-50-2 | 1 | x | 11 | X | x |
| CHLOROETHYL (2)-3-CYCLOHEXYL-1-NITROSOUREA 1- (CCNU) | 013010-47-4 | 1 | X | | | x |
| NITROSOSACOSINE N- | 013256-22-9 | 1 | | x | 1 | x |
| BERYLLIUM HYDROXIDE | 013327-32-7 | 1 | x | 11 | x | |
| NICKEL CARBONYL | 013463-39-3 | 1 | X | | X | |
| TITANIUM DIOXIDE | 013463-67-7 | 1 | | x | | |
| BERYLLIUM SULFATE (1.1) | 013510-49-1 | 1 | x | 11 | x | |
| ZINC CHROMATE | 013530-65-9 | 1 | X | | X | |
| METHYLENEDIANILINE 4 4'- DIHYDROCHLORIDE | 013552-44-8 | | | | | х |
| BERYLLIUM HYDROGEN PHOSPHATE (1.1) | 013598-15-7 | 1 | x | | x | |
| DECABROMOBIPHENYL | 013654-09-6 | 1 | 11 | | | x |
| COBALT MOLYBDATE (VI) | 013762-14-6 | 1 | 1 | х | 1 | 11 |
| CALCIUM CHROMATE (VI) | 013765-19-0 | ' | x | | x | |
| CHLOROETHYL(2)-3-(4-METHYLCYCLOHEXYL)-1-NITROSOUREA 1- | 013909-09-6 | 1 | X | | X | |
| WOOD DUST | 013983-17-0 | 1 | X | | X | |
| SILICA, CRYSTALLINE CRISTOBALITE | 014464-46-1 | ' | X | | X | |
| | 011101101 | 1 | | | | |
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| CHEMICAL NAME | CAS # | OSHA | IAR | .C 2B | NTF | , В |
|--|-------------|------|-----|----------|------|--------|
| | | | | | | |
| CADMIUM FLUOBOKATE | 014486-19-2 | | | | | |
| TALC CONTAINING ASBESTIFORM FIBRES | 014807-96-6 | | | | 1 37 | |
| QUARTZ [SILICA, CRYSTALLINE (RESPIRABLE)] | 014808-60-7 | | | •• | | |
| CYCASIN | 014901-08-7 | | | Х | | |
| CHROMIUM, DICHLORODIOXO- | 014977-61-8 | | X | | X | |
| CHROMIUM (VI) CHLORIDE | 014986-48-2 | | X | | | |
| SILICIC ACID BERYLLIUM SALT | 015191-85-2 | | X | | | |
| NITRILOTRIACETIC ACID, DISODIUM SALT | 015467-20-6 | | | Х | | Х |
| SILICA, CRYSTALLINE TRIDYMITE | 015468-32-3 | | | | X | |
| | 015663-27-1 | | | | | Х |
| ZINC CHROMATE (VI) HYDROXIDE | 015930-94-6 | | X | | X | |
| NITROSONORNICOTINE, N'- | 016543-55-8 | | X | | | Х |
| ESTRA-1,2,5(10),7-TETRAEN-17-ONE,3-(SULFOOXY)-,SODIUM SALT | 016680-47-0 | | | | X | |
| NITROBENZANTHRONE, 3- | 017117-34-9 | | | Х | | |
| COBALT CARBONYL | 017786-31-1 | | | Х | | |
| LEAD CHROMATE (VI) OXIDE | 018454-12-1 | | X | | X | |
| NITRILOTRIACETIC ACID, TRISODIUM SALT, MONOHYDRATE | 018662-53-8 | | | Х | | Х |
| STREPTOZOTOCIN | 018883-66-4 | | | Х | | |
| NITRILOTRIACETIC ACID, MONOSODIUM SALT | 018994-66-6 | | | Х | | Х |
| DAUNOMYCIN | 020830-81-3 | | | Х | | |
| COBALT(II) HYDROXIDE | 021041-93-0 | | | Х | | |
| INIDIUM PHOSPHIDE | 022398-80-7 | | X | | | |
| DINITROFLUOROANTHENE, 3,9- | 022506-53-2 | | | Х | | |
| METHYL MERCURY AND COMPOUNDS "s" | 022967-92-6 | | | Х | | |
| RIDDELLIINE | 023246-96-0 | | | Х | | Х |
| NITRILOTRIACETIC ACID, DISODIUM SALT, MONOHYDRATE | 023255-03-0 | | | Х | | Х |
| BUTYLATED HYDROXYANISOLE (BHA) | 025013-16-5 | | | Х | | Х |
| ADRIAMYCIN | 025316-40-9 | | X | | | Х |
| PENTACHLOROBIPHENYL | 025429-29-2 | | | | | Х |
| TOLUENE DIISOCYANATE, 1,3- | 026471-62-5 | | | Х | | Х |
| ARSENEOUS ACID, CALCIUM SALT | 027152-57-4 | X | X | | X | |
| ARSENIOUS ACID, CALCIUM SALT | 027152-57-4 | X | X | | X | |
| CYCLOPENTA[CD]PYRENE | 027208-37-3 | | X | | | |
| DICHLORO-4,4'-DIAMINODIPHENYL ETHER, 3,3'- | 028434-86-8 | | | Х | | |
| CHROMIUM CARBONATE | 029689-14-3 | | X | | X | |
| TENIPOSIDE | 029767-20-2 | | | Х | | |
| ZIDOVUDINE(AZT) | 030516-87-1 | | | Х | | |
| ETOPOSIDE | 033419-42-0 | | X | | | |
| BUTYRIC ACID, 4-(N-BUTYL-N-NITROSAMINO)- | 038252-74-3 | | | | | Х |
| DIAMINOANISOLE SULPHATE, 2,4- | 039156-41-7 | | | | | Х |
| BERYLLIUM ZINC SILICATE | 039413-47-3 | | X | | X | |
| DINITROPYRENE, 1,6- | 042397-64-8 | | | Х | | Х |
| DINITROPYRENE, 1,8- | 042397-65-9 | | | Х | | |
| AMSACRINE | 051264-14-3 | | | Х | | |
| ARSONIC ACID, CALCIUM SALT (1:1) | 052740-16-6 | X | X | | X | |
| CHLOROZOTOCIN | 054749-90-5 | | X | | | |
| PENTACHLOROBIPHENYL, 3,4,5,3',4'- (PCB-126) | 057465-28-8 | | X | | | |
| NITROPYRENE, 4- | 057835-92-4 | | | Х | | Х |
| POLYBROMINATED BIPHENYLS | 059536-65-1 | | 1 | Х | 1 | |
| CYCLOSPORIN A "s" | 059865-13-3 | | X | | X | |
| N-NITROSOMETHYLAMINO-PROPIONITRILE, 3- | 060153-49-3 | | | Х | | |
| OCTABROMOBIPHENYL | 061288-13-9 | | 1 | | | Х |
| COBALT NAPHTHATE | 061789-51-3 | | 1 | Х | Ì | |
| TRP-P-1(3-AMINO-1,4-DIMETHYL-5H-PYRIDO[4,3-b]INDOLE) | 062450-06-0 | | 1 | Х | Ì | |
| TRP-P-2(3-AMINO-1-METHYL-5H-PYRIDO[4,3-b]INDOLE) | 062450-07-1 | | 1 | Х | 1 | |

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| | | | IAR | С | NT | Р |
|---|-------------|------|------|----|----|-----------------|
| CHEMICAL NAME | CAS # | OSHA | 1 2A | 2B | A | В |
| N-NITROSOMETHYLAMINO-1-(30PYRIDYL)-1-BUTANONE, 4- (NNK) | 064091-91-4 | | | | | $-\overline{x}$ |
| NNK (4-(N-NITROSOMETHYLAMINO)-1-(3-PYRIDYL)-1-BUTANONE) | 064091-91-4 | | X | | | |
| COAL TAR "s" | 065996-89-6 | | | | X | |
| COAL TAR DISTILLATE "s" | 065996-92-1 | | | | X | |
| COAL-TAR PITCHES "s" | 065996-93-2 | | X | | X | |
| BERYLLIUM OXIDE CARBONATE | 066104-24-3 | | X | | X | |
| ERIONITE | 066733-21-9 | | X | | X | |
| GLU-P-2 (2-AMINODIPYRIDO[1,2-a:3',2'-d]IMIDAZOLE | 067730-10-3 | | | Х | | |
| GLU-P-1(2-AMINO-6-METHYLDIPYRIDO[1,2-A:3',2'-D]IMIDZOLE | 067730-11-4 | | | Х | | |
| BLEOMYCIN, HYDROCHLORIDE | 067763-87-5 | | | Х | | |
| POLYBROMINATED BIPHENYL (FF-1) | 067774-32-7 | | | | | Х |
| MeA-ALPHA-C(2-AMINO-3-METHYL-9H-PYRIDO[2,3-b]INDOLE) | 068006-83-7 | | | Х | | |
| SHALE-OILS "s" | 068308-34-9 | | X | | | |
| DINITROPYRENE, 1,3- "s" | 075321-20-9 | | | Х | | |
| IQ(2-AMINO-3-METHYLIMIDAZO[4,5-f]QUINOLINE) | 076180-96-6 | | X | | | |
| AMINO-3,4-DIMETHYL-3h-IMIDAZO(4,5f)QUINOLINE,2- | 077094-11-2 | | | Х | | Х |
| CHLORO-4-(DICHLOROMETHYL)-5-HYDROXY-2(5H)FURANONE, 3- | 077439-76-0 | | | Х | | |
| AMINO-3,8-DIMETHYL-3H-IMIDAZO(4,5-f)QUINOXALINE, 2- | 077500-04-0 | | | Х | | Х |
| ASBESTOS, ACTINOLITE | 077536-66-4 | X | X | | X | |
| ASBESTOS, ANTHOPHYLLITE | 077536-67-5 | X | X | | X | |
| ASBESTOS, TREMOLITE | 077536-68-6 | X | X | | X | |
| CICLOSPORIN | 079217-60-0 | | X | | | |
| CYCLOSPORIN "s" | 079217-60-0 | | Х | | | |
| MICROCYSTIN | 101043-37-2 | | | Х | | |
| PHLP(2-AMINO-1-METHYL-6-PHENYLIMIDAZO[4,5-B]PYRIDINE) | 105650-23-5 | | | Х | | Х |
| DINITROFLUOROANTHENE, 3,7- | 105735-71-5 | | | Х | | |
| CHLORINATED PARAFFINS (CARBON-12, 60% CHLORINE) | 108171-26-2 | | | Х | | Х |
| FUMONISIN B1 | 116355-83-0 | | | Х | | |

REFERENCE:

International Agency for Rearch on Cancer, 2012, Overall Evaluations of Carcinogencity to Humans. (Monographs Volumes 1-106) Sax, Richard, 1999. Dangerous Properties of Industrial Materials.

National Toxicology Program, 2011. 12th Annual Report on Carcinogens.

APPENDIX 5-F

Cole Science Center

Summary of Particularly Hazardous Substances

Please remember that the acute toxins and reproductive toxins lists are only examples and that other chemicals not listed can meet the definitions for those hazards.

SUMMARY OF PARTICULARLY HAZARDOUS SUBSTANCES (by alpha)

Key: SC -- Select Carcinogens RT -- Reproductive Toxins AT -- Acute Toxins SA -- Readily Absorbed Through the Skin DHS -- Chemicals of Interest

| CHEMICAL NAME | CAS # | SC | RT | AT | SA | DHS | |
|---|-------------|----------|----------|----------|----------|----------------|--------|
| | | _ | _ | _ | _ | | |
| 245-т | 000093-76-5 | | v | | v | | i I |
| ABRIN | 001393-62-0 | | 22 | x | 22 | 1 | Ĺ |
| ACETALDEHYDE | 000075-07-0 | x | | | 1 | i | Ĺ |
| ACETAMIDE | 000060-35-5 | x | ľ | | 1 | i | Ĺ |
| ACETOHYDROXAMIC ACID | 000546-88-3 | | x | | x | i | Ĺ |
| ACETONE CYANOHYDRIN, STABILIZED | 000075-86-5 | | | x | | x | Ĺ |
| ACETYLAMINOFLUORENE, 2- | 000053-96-3 | x | ĺ | | i | | Ĺ |
| ACID MIST, STRONG INORGANIC | 000000-00-0 | x | ĺ | İ | i | i | Ĺ |
| ACROLEIN | 000107-02-8 | ĺ | x | x | x | i | Ĺ |
| ACRYLAMIDE | 000079-06-1 | x | x | | x | i | Ĺ |
| ACRYLONTTRILE | 000107-13-1 | x | x | x | x | i | Ĺ |
| ACTINOMYCIN D | 000050-76-0 | | x | | x | i | Ĺ |
| ADIPONITRILE | 000111-69-3 | i | | x | | i | Ĺ |
| ADRIAMYCIN | 023214-92-8 | x | ĺ | | i | i | Ĺ |
| AFLATOXIN B1 | 001162-65-8 | x | ĺ | İ | i | i | Ĺ |
| AFLATOXIN M1 | 006795-23-9 | x | ĺ | İ | i | i | Ĺ |
| AFLATOXINS | 001402-68-2 | x | ĺ | x | 1 | i | Ĺ |
| ALL-TRANS RETINOIC ACID | 000302-79-4 | | x | | x | i | Ĺ |
| ALPRAZOMAN | 028981-97-7 | ĺ | x | İ | x | i | Ĺ |
| ALUMINUM PHOSPHIDE | 020859-73-8 | l | | x | | x | Ĺ |
| AMANTADINE HYDROCHLORIDE | 000665-66-7 | ĺ | x | | x | i | Ĺ |
| AMINO-2,4-DIBROMOANTHRAOUINONE | 000081-49-2 | x | ĺ | | | i | Ĺ |
| AMINO-2-METHYLANTHRAOUINONE, 1- | 000082-28-0 | x | ĺ | İ | Ì | i | Ĺ |
| AMINO-3,4-DIMETHYL-3h-IMIDAZO(4,5f)OUINOLINE,2- | 077094-11-2 | x | ĺ | İ | Ì | i | Ĺ |
| AMINO-3,8-DIMETHYL-3H-IMIDAZO(4,5-f)OUINOXALINE, 2- | 077500-04-0 | x | i | İ | Ì | i | Ĺ |
| AMINO-5-(5-NITRO-2-FURYL)-1,3,4-THIADIAZOLE, 2- | 000712-68-5 | x | i | i | | i | Ĺ |
| AMINOANTHRAOUINONE, 2- | 000117-79-3 | x | i | İ | | i | Ĺ |
| AMINOAZOBENZENE, para- | 000060-09-3 | x | i | İ | | i | Ĺ |
| AMINOAZOTOLUENE, ortho- | 000097-56-3 | x | x | İ | | i | ĺ |
| AMINODIPHENYL, 4- | 000092-67-1 | x | x | İ | x | i | ĺ |
| AMINOGLUTETHIMIDE | 000125-84-8 | i | x | i | x | i | Ĺ |
| AMINOPTERIN | 000054-62-6 | i | x | i | i | i | ĺ |
| AMITROLE | 000061-82-5 | x | İ | i | i | i | Ĺ |
| AMMONIA (GAS) | 007664-41-7 | i | İ | x | i | i | Ĺ |
| AMMONIUM DICHROMATE (VI) | 007789-09-5 | x | İ | i | x | İ | ĺ |
| AMSACRINE | 051264-14-3 | x | İ | i | i | İ | ĺ |
| ANGIOTENSIN CONVERTING ENZYME (ACE) INHIBITORS | 00000-00-0 | İ | x | i | i | İ | ĺ |
| ANILINE | 000062-53-3 | İ | İ | x | x | İ | Ĺ |
| ANILINE AND COMPOUNDS | 00000-00-0 | İ | İ | x | x | İ | Ĺ |
| ANISIDINE HYDROCHLORIDE, o- | 000134-29-2 | x | İ | İ | İ | İ | Ĺ |
| ANISIDINE, ORTHO- | 000090-04-0 | x | İ | İ | x | İ | Ĺ |
| ANISINDIONE | 000117-37-3 | ĺ | x | ĺ | ĺ | Ì | ĺ |
| ANTHRAQUINONE, 1,8-DIHYDROXY | 000117-10-2 | x | ĺ | ĺ | ĺ | Ì | ĺ |
| ARAMITE | 000140-57-8 | x | | | | | |
| ARECA NUT | 00000-00-0 | x | | | | | |
| ARISTOLOCHIC ACIDS | 00000-00-0 | x | | | | | |
| ARSENEOUS ACID, CALCIUM SALT | 027152-57-4 | x | x | | | | |
| ARSENEOUS ACID, POTASSIUM SALT | 010124-50-2 | x | x | | | | Ĺ |
| | | | | | | | |

| CHEMICAL NAME | CAS # | SC | RT | AT | SA | DHS |
|--|--------------------------------------|----------|----------|----|--------|-----------|
| ADSENIC ACTO | 007778-39-4 | v | v | | | |
| ARGENIC ACID AND CALTO | 00000-00-0 | | | | A V | |
| ARSENIC ACID AND SALIS | 000000-00-0 | | | | X | |
| ARSENIC ACID, CALCIUM SALI (2.3) | 007778-44-1 | | | | X. | |
| ARSENIC ACID, DISODIUM SALI, HEPIAHIDRAIE | 010048-95-0 | | | | X. | |
| ARSENIC ACID, LEAD(2+) SALI (1·1) | 007784-40-9 | | | X | х | |
| ARSENIC ACID, MONOPOTASSIUM SALT | 007784-41-0 | X | X | | х | |
| ARSENIC ACID, SODIUM SALT | 007631-89-2 | X | X | x | х | |
| ARSENIC AND COMPOUNDS | 00/440-38-2 | X | X | | | . ! |
| ARSENIC PENTAFLUORIDE | 00//84-36-3 | X | X | x | | . ! |
| ARSENIC PENTOXIDE | 001303-28-2 | X | X | x | | |
| ARSENIC TRICHLORIDE | 007784-34-1 | x | x | x | | x |
| ARSENIC TRIOXIDE | 001327-53-3 | x | x | x | х | i I |
| ARSENIUOS ACID AND SALTS | 00000-00-0 | | | x | | i I |
| ARSENIUOS ACID, CALCIUM SALT | 027152-57-4 | x | x | x | | |
| ARSENIUOS ACID, MONOSODIUM SALT | 007784-46-5 | x | x | x | | |
| ARSINE | 007784-42-1 | x | x | x | | |
| ARSONIC ACID | 000097-44-9 | x | x | x | | |
| ARSONIC ACID AND SALTS | 00000-00-0 | | | x | | |
| ARSONIC ACID, CALCIUM SALT (1:1) | 052740-16-6 | x | x | x | | i İ |
| ASBESTOS | 001332-21-4 | x | İ | İ | | i i |
| ASBESTOS, ACTINOLITE | 077536-66-4 | x | İ | i | | i i |
| ASBESTOS, AMOSITE | 012172-73-5 | x | İ | i | | i i |
| ASBESTOS, ANTHOPHYLLITE | 077536-67-5 | x | İ | i | | i i |
| ASBESTOS, CHRYSOTILE | 012001-29-5 | x | İ | i | | i i |
| ASBESTOS, CROCIDOLITE | 012001-28-4 | x | ĺ | | | i i |
| ASBESTOS, TREMOLITE | 077536-68-6 | x | İ | | | i i |
| ASPIRIN | 000050-78-2 | | x | | | i i |
| ATENOLO | 029122-68-7 | | x | | x | i i |
| AURAMINE | 000492-80-8 | x | x | | | i i |
| AURANOFIN | 034031-32-8 | | x | | | i i |
| AZACYTIDINE | 000320-67-2 | x | | | | i i |
| AZASERINE | 000115-02-6 | | | | | 1 |
| AZATHIOPRINE | 000446-86-6 | | | | | |
| AZTRIDINE | 000151-56-4 | | | | v | |
| RADRIDINE | 000000-00-0 | | | | л | |
| | 000000000000000000000000000000000000 | ~~ | | | | |
| DECLOMETURSONE DIDDODIONATE | 010294 - 40 - 3 | | | | | |
| DECLOMETRASONE DIFROFIONALE | 00334-09-0 | | | | 77 | |
| | 01/004-33-2 | | | | ~ | |
| | 000030-35-3 | | | | x | |
| BENZ [C] PHENAN I HRENE | 000195-19-7 | | | | | |
| BENZ[]]ACEANTHRYLENE | 000202-33-5 | X | | | | |
| BENZENE | 000071-43-2 | X | X | | х | |
| BENZIDINE AND BENZIDINE BASED DYES | 000092-87-5 | X | | | х | . ! |
| BENZOLAJPYRENE | 000050-32-8 | X | X | | | . I |
| BENZO[b]FLUORANTHENE | 000205-99-2 | X | | | | |
| BENZOLJJFLUORANTHENE | 000205-82-3 | X | | | | . I |
| BENZOLKJFLUORANTHENE | 000207-08-9 | X | | | | |
| BENZOFURAN | 000271-89-6 | x | | | | . I |
| BENZOPHENONE | 000119-61-9 | x | | | | _ |
| BENZOYL CHLORIDE (COMBINED EXPOSURE WITH CHLOROTOLUENES) | 000098-88-4 | x | | | х | |

| | | | | | | : |
|---|------------------------------------|----|-------|----|----|-----|
| CHEMICAL NAME | CAS # | SC | RT | AT | SA | DHS |
| | | _ | _ | _ | _ | |
| BENZOYLTRICHLORIDE(COMBINED EXPOSURE W/ BENZOYL CHLORIDE) | 000098-07-7 | x | | | x | (|
| BENZPHETAMINE HYDROCHLORIDE | 005411-22-3 | | X | | x | (|
| BENZYL CHLORIDE(COMBINED EXPOSURE W/ BENZOYL CHLORIDE) | 000100-44-7 | x | X | | x | (|
| BENZYL VIOLET 4B | 001694-09-3 | X | | | | í ! |
| BERYLLIUM ALUMINUM ALLOY | 012//0-50-2 | X | | | | í ! |
| BERYLLIUM ALUMINUM SILICATE | 001302-52-9 | X | | | | (|
| BERYLLIUM AND COMPOUNDS | 00/440-41-/ | x | | | | |
| BERILLIUM CHLORIDE | 007707 40 7 | | | | | i l |
| BERILLIUM FLUURIDE | | | | | | i l |
| DERVILIUM HIDROGEN PHOSPHAIE (1.1) | 013598 - 15 - 7 | | | | | i I |
| BERILLIUM HIDROAIDE | 013327 - 32 - 7 | | | | | |
| BERILLIUM OXIDE CARRONAME | 001304 - 56 - 9 | | | | | í |
| DERVILIUM ONIDE CARBONAIE | 000104 - 24 - 3 | | | | | i I |
| BERILLIUM SULFAIE (I·I) | 013510-49-1 | | | | | |
| DERVILIUM SULFAIE, IEIRAHIDRAIE (1.1.4) | 007787-56-6 | | | | | |
| BERYLLIUM ZINC SILICATE | 039413 - 47 - 3 | x | | | | (|
| BIS (2-CHLOROEIHYLIHIO) MEIHANE | 142969 - 13 - 6 | | | | | i l |
| BIS(2-CHLOROETHYLTHIO)-N-BUTANE, 1,4- | 142868-93-7 | | | x | | (|
| BIS(2-CHLOROEIHYLIHIO) -N-PENIANE, 1, 5- | 142868-94-8 | | | | | |
| BIS(2-CHLOROETHYLTHIO)-N-PROPANE, 1,3- | 063905 - 10 - 2 | | | x | | (|
| BIS(2-CHLOROEIHYLIHIOMEIHYL)EIHER | 063918-90-1 | | | x | | i |
| BISCHLOROETHYL NITROSOUREA (BCNU) | 000154-93-8 | X | | x | | (|
| BITUMENS, EXTRACTS OF STEAM-REFINED & AIR-REFINED | 008052-42-4 | x | | | | |
| BLEOMYCIN SULFATE | 009041-93-4 | x | | | | (|
| BLEOMYCIN, HYDROCHLORIDE | 067763-87-5 | x | | | | í |
| BLEOMYCINS | 011056-06-7 | X | | | | í l |
| BOMOXYNIL OCTANOATE | 001689-99-2 | | | | x | (|
| BORON TRIBROMIDE | 010294 - 33 - 4 | | | | | |
| BORON IRIFLUORIDE | 007637 - 07 - 2 | | | | | |
| BOTOLINUM TOXINS | | | | | | i I |
| BRACKEN FERN | 000000-00-0 | | | | | |
| | 007720-95-0 | | | | | |
| BROMINE PENIAFLUORIDE | 007709-30-2 | | | | | |
| BROMINE IRIFLUORIDE | 007707 - 71 - 5 | | | | | |
| BROMOACEIONE | 000598 - 31 - 2 | | | | | |
| | 000059 - 14 - 3 | | | | | i I |
| BROMODICHLOROMEIHANE | 000075-27-4 | | | | | í I |
| DROMOPROPANE, 1- | 000100-94-3 | | | | | i I |
| DRUMOPROPANE, 2- | 000075-20-3 | | | | | |
| BUIADIENE, I, S- | 000106 - 99 - 0 | | | | | i I |
| BUTANEDIUL DIMETRILSULPHUNALE, 1,4- (BUSULFAN) | 000055-96-1 | | | | | i I |
| DUIILAIED AIDKOAIANISOLE (DAA) | 023013 - 10 - 3 | | | | | |
| DUIIRIC ACID, 4-(N-BUIIL-N-NIIROSAMINO)- | 030252-74-3 | | | | | |
| C I DAGIC DED & MONOLYDDOCULODIDE | 003008-88-0 | | | | | |
| CADMILIM AND COMPOSITION OCTION OF THE | 007440-43-9 | | - | | | |
| | 000513-78-0 | | | | | |
| CADMILM CHLORIDE | 000513 - 76 - 0 010108 - 64 - 2 | | | | ~ | (|
| CADMILM FLUCEDE | 014486 - 10 - 2 | | | | A | |
| CADMILM NITERATE | 011325-01-7 | | | | | (|
| CADITON NITRALE | 010323-94-/ | A | | | | i I |

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| CHEMICAL NAME | CAS # | SC | RT | TA | SA | DHS |
|--|------------------------------------|----|--------------|--------------|-----|-----|
| CADMIUM OXIDE | 001306-19-0 | x | x | _ | _ | |
| CADMIUM SULFATE (1:1) | 010124-36-4 | x | x | | | |
| CADMIUM SULFIDE | 001306-23-6 | x | x | | | |
| CAFFEIC ACID | 000331-39-5 | x | | | | |
| CALCIUM CHROMATE (VI) | 013765-19-0 | x | İ | | | |
| CALCIUM PHOSPHIDE | 001305-99-3 | | İ | x | | x |
| CAPTAFOL | 002425-06-1 | x | İ | | | |
| CARBAMAZEPINE | 000298-46-4 | | x | | | |
| CARBON BLACK | 001333-86-4 | x | | | | |
| CARBON DISULFIDE | 000075-15-0 | | x | | x | |
| CARBON MONOXIDE | 000630-08-0 | | x | | | |
| CARBON TETRACHLORIDE | 000056-23-5 | v | | | v | |
| CARBODIATIN | 041575-94-4 | | - | | v | |
| CARRAGEENAN DEGRADED | 0.09000 - 07 - 1 | v | | | | |
| | 000120-80-9 | | | | v | |
| CERAMIC FIBERS (RESDIRABLE SIZE) | 000120 00 9 | | | I | ~ | |
| CHLORAMBUCII. | 000000 00 0 | | v | | | |
| CHLORAMDUCTI | 000056-75-7 | | | | | |
| CHLORDANE | 000050 75 7 | | | | ~ | |
| | 000007-74-9 | | | I | | |
| CULORDANE, ALPHA | 005103 - 71 - 3 005103 - 74 - 2 | | | I | | |
| CHLORDANE, BEIA | 005103 - 74 - 2 | | | | - X | |
| CHLORDANE, GAMMA | 003300-34-7 | | ~ | | ~ | |
| | 000050-25-3 | | | | | |
| CHLORDIAZEPOXIDE HIDROCHLORIDE | 000430-41-5 | | x | | | |
| CHLORENDIC ACID | 062440 20 0 | | | | | |
| CHLORINATED PARAFFINS (CARBON-12, 60% CHLORINE) | 063449 - 39 - 8 | | | | | |
| CHLORINATED TOULENES, ALPHA- | 1081/1-82-2 | x | | | | |
| CHLORINE DIOWIDE | 007782-50-5 | | | хI | | 37 |
| CHLORINE DIVISION | 010049 - 04 - 4 | | | | | X |
| CHLORINE PENTAFLUORIDE | 013637-63-3 | | | x | | x |
| CHLORINE TRIFLUORIDE | 00//90-91-2 | | ļ | x | | |
| CHLORO-2-METHYLPROPENE, 1- | 000513-37-1 | x | ļ | | | |
| CHLORO-Z-METHYLPROPENE, 3- | 000563-47-3 | x | x | | | |
| CHLORO-4-(DICHLOROMETHYL)-5-HYDROXY-2(5H)-FURANONE, 3- | 077430-76-0 | x | | | | |
| CHLOROACETYL CHLORIDE | 000079-04-9 | | ļ | | | x |
| CHLOROANILINE, PARA | 000106-47-8 | x | | | x | |
| CHLOROETHYL(2)-3-(4-METHYLCYCLOHEXYL)-1-NITROSOUREA,1- | 013909-09-6 | x | | | | |
| CHLOROETHYL(2)-3-CYCLOHEXYL-1-NITROSOUREA,1-(CCNU) | 013010-47-4 | x | | | | |
| CHLOROETHYLCHLORO-METHYLSULFIDE, 2- | 002625-76-5 | | | x | | x |
| CHLOROFORM | 000067-66-3 | x | x | | | |
| CHLOROMETHYL ETHER, BIS- | 000542-88-1 | x | x | | x | |
| CHLOROMETHYL ETHER, BIS- (TECHNICAL GRADE) | 000107-30-2 | x | x | | x | |
| CHLORO-O-PHENYLENEDIAMINE, 4- | 000095-83-0 | x | x | | | |
| CHLORO-O-TOLUIDINE HYDROCHLORIDE, 4- | 003165-93-3 | х | | | | |
| CHLORO-O-TOLUIDINE, 4- | 000095-69-2 | x | x | | | |
| CHLOROPHENOXY HERBICIDES | 00000-00-0 | x | | | x | |
| CHLOROPICRIN | 000076-06-2 | | | x | | |
| CHLOROPRENE | 000126-99-8 | x | x | | x | |
| CHLOROSARIN | 001445-76-7 | | | x | x | x |
| CHLOROSOMAN | 007040-57-5 | | I | х | x | x |

Revised: 11/2012

| CHEMICAL NAME CAS # | SC | RT | AT | SA | DHS |
|--|----------------|----------|----|----|------|
| CHLOROSILLFONTC ACTD 007790 | | - | | - | |
| CHLOROZOTOCIN 054749 | -90-5 x | - | | | 21 |
| CHROMATE(1-) HYDROXYOCTAOXODIZINCATEDI- DOTASSIIM 011103 | -86-9 x | | | | ł |
| CHROMIC ACID DISODIUM SALT 007775 | -11-3 x | } | | v | ł |
| CHROMIUM (III) OXIDE (2:3) 001308 | -38-9 x | - | | | i |
| CHROMIUM (VI) OXIDE (1:3) 001333 | -82-0 x | - | | | i |
| CHROMIUM (VI) CHLORIDE (115) 014986 | -48-2 x | - | | | ł |
| CHROMIUM CARBONATE 029689 | $-14-3 \mid x$ | | | | ł |
| CHROMIIIM PHOSPHATE 007789 | -04-0 x | Ì | | | i |
| CHROMIIIM TRIACETATE 001066 | $-30-4 \mid x$ | 1 | | | ļ |
| CHROMIIIM DICHLORODIOXO- 014977 | -61-8 x | 1 | | | ł |
| CHROMIIM HEXAVALENT AND COMPOLINDS 007440 | -47-3 x | | | | ł |
| CHRYSENE 000218 | -01-9 x | | | | ł |
| CT ACTD RED 114 006485 | -34-3 x | Ì | | | i |
| CT DIRECT BLUE 15 002429 | $-74-5 \mid x$ | Ì | | | ł |
| CTCLOSPORTN 079217 | -60-0 x | 1 | | | ł |
| CISPLATIN 015663 | $-27-1 \mid x$ | x | | | ł |
| CITRUS RED NO 2 006358 | -53-8 x | | | | i |
| CLOBETASOL PROPIONATE 025122 | -46-7 | | | | ł |
| CLOMIDHENE CITRATE 000050 | _41_9 | | | | |
| CLORAZEDATE DIDOTASSIIM 057109 | -90-7 | | | | |
| COAL TAR 065996 | -89-6 x | | | v | |
| COAL TAR DISTILLATE 065996 | -92-1 x | - | | v | |
| COAL-TAR 008007 | $-45-2 \mid x$ | - | | v | |
| COAL-TAR PITCHES 065996 | -93-2 x | | | x | ł |
| COBALT (2+) SULFIDE 001317 | $-42-6 \mid x$ | 1 | | | ł |
| COBALT (II) ACETATE 006147 | $-53-1 \mid x$ | ł | | | i |
| COBALT (III) OXIDE 001308 | $-04-9 \mid x$ | i | | | i |
| COBALT ACETATE 000071 | $-48-7 \mid x$ | 1 | | | i |
| COBALT ALLOY, CO, CR 011114 | -92-4 x | i i | | | i |
| COBALT AND COMPOUNDS 007440 | -48-4 x | i i | | | ł |
| COBALT CARBONATE 000513 | -79-1 x | i i | | | i |
| COBALT CARBONATE, COBALT DIHYDROXIDE (2:3) 012602 | -23-2 x | i | | | i |
| COBALT CARBONYL 017786 | -31-1 x | i | | | i |
| COBALT DINITRATE HEXAHYDRATE 010026 | -22-9 x | i | | | i |
| COBALT HYDROXIDE 001307 | -86-4 x | i | | | i |
| COBALT HYDROXIDE OXIDE 012016 | -80-7 x | i | | | i |
| COBALT MOLYBDATE(VI) 013762 | -14-6 x | i | | | i |
| COBALT NAPHTHATE 061789 | -51-3 x | i | | | i |
| COBALT OXIDE 001308 | -06-1 x | i | | | i |
| COBALT TRIACETATE 000917 | -69-1 x | i | | | i |
| COBALT(2+) OXIDE 001307 | -96-6 x | i | | | i |
| COBALT(II) CHLORIDE 007646 | -79-9 x | i | | | i |
| COBALT(II) CHLORIDE, HEXAHYDRATE 007791 | -13-1 x | i | İ | | i |
| COBALT(II) HYDROXIDE 021041 | -93-0 x | i | İ | | i |
| COBALT(II) NITRATE (1:2) 010141 | -05-6 x | i | İ | | i |
| COBALT(II) SULFATE (1:1) 010124 | -43-3 x | İ | i | i | i |
| COBALT, (MU(CARBONATO(2-)-O:O'))DIHYDROXYDI 012069 | -68-0 x | İ | i | i | i |
| COBALT, DI-MU-CARBONYLNONACARBONYL 010210 | -68-1 x | İ | i | i | i |
| COBALT-CHROMIUM-MOLYBDENUM ALLOY 012629 | -02-6 x | İ | İ | İ | i |

Revised: 11/2012

| COBALT-CHROMIUM-NICKEL-TUNGSTEN ALLOY CI2638-07-2 x | CHEMICAL NAME | CAS # | SC | RT | AT | SA | DHS |
|--|---|-----------------|------|----|----|----|-----|
| CUBALT-CERONICUPATERER LIDIO 012039-01-2 X | CODALT CUDOMILIM NICKEL TINCCTEN ALLOY | 012620 07 2 | | — | _ | _ | |
| COUCNESTORAL 00000-000-000 | COLCULATINE | 012038-07-2 | | | | | |
| CURRENTIAL D00430-01-3 X I | CONFERENT | 000004-80-8 | | A | | | |
| CREDGOTES 000021-57-9 X I | CONESTORAL CREASANTE MOOD | 008021-39-4 | | | | | |
| CRESDINE, para- 00800120-71-8 x 1 1 CUPERRON 000135-20-6 x 1 1 CUPERRON 000420-04-2 1 x x CVANNIDE 000057-12-5 1 x x 1 CVANOGEN 00000-00-0 1 x x 1 CVANOGEN 000460-19-5 1 x x x CVANOGEN 000506-77-4 1 x x x x CYCLOREXIMIDE 000566-81-9 x 1 x x x CYCLOPENTALCDIPYRENE 000666-51-9-2 x x 1 x x CYCLOSPORIN A 079217-60-0 x x 1 x x CYCLOSPORIN A 000417-94-4 x 1 1 x x DANAZOL 01730-88-5 x 1 1 1 1 DANAZOL 01730-88-5 x 1 1 1 1< | CREOSOTE, WOOD | 008021-39-4 | | | | | |
| CALDIAND, Jellar 000125-10 X I <td>CRECIDINE para-</td> <td>000120-71-8</td> <td></td> <td></td> <td></td> <td></td> <td></td> | CRECIDINE para- | 000120-71-8 | | | | | |
| CUTANAMIDE 000120-00 x x x x CYANNIDE 000057-12-5 x x x CYANNIDE AND COMPOUNDS 000420-04-2 x x x CYANOGEN AND COMPOUNDS 000400-00-0 x x x x CYANOGEN AND COMPOUNDS 000000-00-0 x x x x x CYANOGEN CHLORIDE 000566-77-4 x | CILDEEDDON | 000120-71-8 | | | | | |
| CLANADD 0.00450-19-2 x x CYANIDE AND COMPOUNDS 000007-12-5 x x CYANOGEN 0000460-19-5 x x CYANOGEN AND COMPOUNDS 000000-0-0 x x CYANOGEN AND COMPOUNDS 000056-77-4 x x CYANOGEN AND COMPOUNDS 000056-77-4 x x CYANOGEN AND COMPOUNDS 000056-77-4 x x CYCLOPENTAICD PYRENE 027208-37-3 CYCLOPHATAICD PYRENE 027208-37-3 CYCLOSPORIM 079217-60-0 x CYCLOSPORIN A 059865-13-3 x DACARBAZINE 000147-94-4 x DACARBAZINE 000147-34-3 x DANOMYCIN 020830-81-3 x DATO 000657-9-4 x DATO 020830-81-3 x DACARBAZINE 00017-02-41-8 x DACARBAZINE 00017-02-41-8 x | CVANAMIDE | 000133-20-0 | | | | ~~ | |
| CLARLDE AND COMPOUNDS 000000-00-0 x x CYANDGE AND COMPOUNDS 000400-19-5 x CYANOGEN AND COMPOUNDS 000000-00-0 x CYANOGEN CHLORIDE 000000-00-0 x CYANOGEN CHLORIDE 000000-00-0 x CYCLOHEXIMIDE 014901-08-7 x x x CYCLOPENTAICDIPYRENE 007207-87-3 x x x CYCLOPENTAICDIPYRENE 007207-76-0 x x x CYCLOSPORIN A 079217-60-0 x x x CYCLOSPORIN A 079217-60-0 x x x DACARBAZINE 00147-94-4 x D DANAZOL 01723-88-5 D D DANAZOL 01702-41-9 X D DACARDANE 000050-29-3 | CININE | 000420-04-2 | | | | | |
| CIANDE AND CONFORDS 000460-19-5 X X CYANOGEN AND COMPOUNDS 000460-19-5 X X CYANOGEN AND COMPOUNDS 000060-00-0 X X X X CYANOGEN CHLORIDE 000506-77-4 X X X X CYCLOHEXIMIDE 000666-81-9 X X X CYCLOPENTAICD [DYRENE 0027208-37-3 X X X CYCLOSPORIN 000446-01-9 X X X X CYCLOSPORIN 079217-60-0 X | CIANIDE AND COMPOUNDS | 000000-00-0 | | | | | |
| CHANGGEN AND COMPOUNDS 00000-00-0 I X I CYANGGEN CHLORIDE 00000-00-0 I X </td <td>CYANGEN</td> <td>000000-00-0</td> <td> </td> <td></td> <td></td> <td>A</td> <td></td> | CYANGEN | 000000-00-0 | | | | A | |
| CHARGEN AND CONFOUNDS 00000-00-00 | CIANOGEN GUINOCEN AND COMPOSINDS | 000480-19-5 | | | | | |
| CTARDEL 000306-77-4 | CIANOGEN AND COMPOUNDS | 000000-00-0 | | | | | |
| CTCALAIN 014901-08-7 x | CYANOGEN CHLORIDE | 000308-77-4 | | | | x | |
| CTCLOREALINIDE 00086-61-9 X I I CYCLOPENTALCD JYRENE 006055-13-3 X I X CYCLOPHOSPHANIDE 006055-13-3 X I X CYCLOSPORIN 079217-60-0 X X I X CYCLOSPORIN 059865-13-3 X I X I X DACARBAZINE 000147-94-4 X I I I DACARBAZINE 001432-03-4 X I I I DANAZOL 01730-88-5 X I I I DANAZOL 01702-41-9 X X I I DECABORANE 017702-41-9 X X I I DIACETYLEENZIDINE, N, N'- 000613-33 X I I I DIACETYLEENZIDINE, N, N'- 000117-81-7 X I I I DIACETYLEENZIDINE, N, N'- 000135-64 X I I I DIAMINOANISOLE X, 4- 000135-64 X I I I DIAMINOBEN | | 014901-08-7 | | | | | |
| CYCLOPENTATCD/PYREME 02/206-3/-3 x < | | 000066-81-9 | | x | | | |
| CYCLOSPORIN 070217-60-0 x x x x CYCLOSPORIN 059865-13-3 x x x x x CYCLOSPORIN 059865-13-3 x x x x x x CYTARABINE 004342-03-4 x | | 02/208 - 3/ - 3 | | | | | |
| CYCLOSPORIN A 07917-60-0 X <td>CYCLOPHOSPHAMIDE</td> <td>006055-19-2</td> <td></td> <td>x</td> <td></td> <td></td> <td></td> | CYCLOPHOSPHAMIDE | 006055-19-2 | | x | | | |
| CYCLOSPORIN A 059655-13-3 X <td>CYCLOSPORIN</td> <td>0/921/-60-0</td> <td> X</td> <td>x</td> <td></td> <td></td> <td></td> | CYCLOSPORIN | 0/921/-60-0 | X | x | | | |
| CYTARABINE 000147-94-4 x | CYCLOSPORIN A | 059865-13-3 | X | х | | | |
| DACARBAZINE 004342-03-4 X I I DANAZOL 01730-88-5 X X I I DAUNOMYCIN 020830-81-3 X X X X X I I DDT 000050-29-3 X <td>CYTARABINE</td> <td>000147-94-4</td> <td></td> <td>х</td> <td></td> <td></td> <td></td> | CYTARABINE | 000147-94-4 | | х | | | |
| DANAZOL 017230-88-5 x DAUNOMYCIN 020830-81-3 x DDT 00050-29-3 x | DACARBAZINE | 004342-03-4 | X | | | | |
| DAUNOMYCIN 020830-81-3 x x DDT 00050-29-3 x x DECABORANE 017702-41-9 x x DECABROMOBIPHENYL 013654-09-6 x | DANAZOL | 017230-88-5 | | x | | | |
| DDT 000050-29-3 x x x x DECABORANE 017702-41-9 x x x DECABOMOBIPHENYL 013654-09-6 x x x x DEMECLOCYCLINE HYDROCHLORIDE (INTERNAL USE) 000064-73-3 x x x x x x DI(2-ETHYLHEXYL)PHTHALATE 000117-81-7 x | DAUNOMYCIN | 020830-81-3 | X | х | | | . ! |
| DECABROMARE 017/02-41-9 x x x DECABROMOBIPHENYL 013654-09-6 x x x x DEMECLOCYCLINE HYDROCHLORIDE (INTERNAL USE) 000064-73-3 x | DDT | 000050-29-3 | X | х | | х | |
| DECABROMOBIPHENYL 013654-09-6 x | DECABORANE | 017702-41-9 | | | x | х | |
| DEMECLOCYCLINE HYDROCHLORIDE (INTERNAL USE) 000064-73-3 x DI (2-ETHYLHEXYL)PHTHALATE 000117-81-7 x <td>DECABROMOBIPHENYL</td> <td>013654-09-6</td> <td>x</td> <td></td> <td></td> <td></td> <td></td> | DECABROMOBIPHENYL | 013654-09-6 | x | | | | |
| DI (2-ETHYLHEXYL)PHTHALATE 000117-81-7 x | DEMECLOCYCLINE HYDROCHLORIDE (INTERNAL USE) | 000064-73-3 | | х | | | |
| DIACETOXYSCIRPENOL 002270-40-8 DIACETOXYSCIRPENOL 000613-35-4 <td>DI (2-ETHYLHEXYL) PHTHALATE</td> <td>000117-81-7</td> <td>x</td> <td></td> <td></td> <td></td> <td></td> | DI (2-ETHYLHEXYL) PHTHALATE | 000117-81-7 | x | | | | |
| DIACETYLBENZIDINE, N, N'- 000613-35-4 x | DIACETOXYSCIRPENOL | 002270-40-8 | | | х | | |
| DIAMINOANISOLE SULPHATE, 2,4- 039156-41-7 x <td>DIACETYLBENZIDINE, N, N'-</td> <td>000613-35-4</td> <td>x</td> <td></td> <td></td> <td></td> <td></td> | DIACETYLBENZIDINE, N, N'- | 000613-35-4 | x | | | | |
| DIAMINOANISOLE, 2,4- (AND ITS SALTS) 000615-05-4 x x <t< td=""><td>DIAMINOANISOLE SULPHATE, 2,4-</td><td>039156-41-7</td><td>x</td><td></td><td></td><td></td><td> </td></t<> | DIAMINOANISOLE SULPHATE, 2,4- | 039156-41-7 | x | | | | |
| DIAMINOBENZENE 000136-35-6 x </td <td>DIAMINOANISOLE, 2,4- (AND ITS SALTS)</td> <td>000615-05-4</td> <td>x</td> <td>х</td> <td></td> <td></td> <td> </td> | DIAMINOANISOLE, 2,4- (AND ITS SALTS) | 000615-05-4 | x | х | | | |
| DIAMINODIPHENYL ETHER 000101-80-4 x | DIAMINOBENZENE | 000136-35-6 | x | | | | |
| DIAMINOTOLUENE, 2,4- 000095-80-7 x x DIAZEPAM 000439-14-5 x x x DIAZOAMINOBENZENE 000136-35-6 x x | DIAMINODIPHENYL ETHER | 000101-80-4 | x | | | | |
| DIAZEPAM 000439-14-5 x | DIAMINOTOLUENE, 2,4- | 000095-80-7 | x | х | | | |
| DIAZOAMINOBENZENE 000136-35-6 x x x x x x x | DIAZEPAM | 000439-14-5 | | х | | х | |
| DIAZOMETHANE 000334-88-3 x DIBENZ[a,h]ACRIDINE 000226-36-8 x DIBENZ[a,h]ANTHRACENE 000053-70-3 x DIBENZ[a,j]ACRIDINE 000224-42-0 x <td>DIAZOAMINOBENZENE</td> <td>000136-35-6</td> <td>x</td> <td></td> <td></td> <td>х</td> <td> </td> | DIAZOAMINOBENZENE | 000136-35-6 | x | | | х | |
| DIBENZ[a,h]ACRIDINE 000226-36-8 x <t< td=""><td>DIAZOMETHANE</td><td>000334-88-3</td><td></td><td></td><td>х</td><td></td><td></td></t<> | DIAZOMETHANE | 000334-88-3 | | | х | | |
| DIBENZ[a,h]ANTHRACENE 000053-70-3 x x | DIBENZ[a,h]ACRIDINE | 000226-36-8 | x | | | | |
| DIBENZ[a,j]ACRIDINE 000224-42-0 x <t< td=""><td>DIBENZ[a,h]ANTHRACENE</td><td>000053-70-3</td><td>x</td><td>х</td><td></td><td></td><td></td></t<> | DIBENZ[a,h]ANTHRACENE | 000053-70-3 | x | х | | | |
| DIBENZ[c,h]ACRIDINE 000224-53-3 x <t< td=""><td>DIBENZ[a,j]ACRIDINE</td><td>000224-42-0</td><td>x</td><td></td><td></td><td></td><td></td></t<> | DIBENZ[a,j]ACRIDINE | 000224-42-0 | x | | | | |
| DIBENZO[a,e]PYRENE 000192-65-4 x <td< td=""><td>DIBENZ[c,h]ACRIDINE</td><td>000224-53-3</td><td>x</td><td></td><td></td><td></td><td></td></td<> | DIBENZ[c,h]ACRIDINE | 000224-53-3 | x | | | | |
| DIBENZO[a,h]PYRENE 000189-64-0 x <td< td=""><td>DIBENZO[a,e]PYRENE</td><td>000192-65-4</td><td>x</td><td></td><td></td><td></td><td> </td></td<> | DIBENZO[a,e]PYRENE | 000192-65-4 | x | | | | |
| DIBENZO[a,i]PYRENE 000189-55-9 x <td< td=""><td>DIBENZO[a,h]PYRENE</td><td>000189-64-0</td><td> x</td><td></td><td></td><td></td><td></td></td<> | DIBENZO[a,h]PYRENE | 000189-64-0 | x | | | | |
| DIBENZO[a,1]PYRENE 000191-30-0 x <td< td=""><td>DIBENZO[a,i]PYRENE</td><td>000189-55-9</td><td>x</td><td></td><td></td><td></td><td></td></td<> | DIBENZO[a,i]PYRENE | 000189-55-9 | x | | | | |
| DIBENZO[c,g]CARBAZOLE, 7H- 000194-59-2 x | DIBENZO[a,l]PYRENE | 000191-30-0 | x | | | | i i |
| DIBORANE 019287-45-7 | DIBENZO[c,g]CARBAZOLE, 7H- | 000194-59-2 | x | | | | l İ |
| DIBROMO-1-PROPANOL,2,3- 000096-13-9 x DIBROMO-3-CHLOROPROPANE,1,2- 000096-12-8 x x x | DIBORANE | 019287-45-7 | | | x | | x |
| DIBROMO-3-CHLOROPROPANE,1,2- 000096-12-8 x x x | DIBROMO-1-PROPANOL, 2, 3- | 000096-13-9 | x | | | | ı i |
| | DIBROMO-3-CHLOROPROPANE, 1, 2- | 000096-12-8 | x | х | | х | l İ |

| CHEMICAL NAME | CAS # | sc | RT | AT | SA | DHS |
|--|-----------------|----------|----------|----------|----|-----------|
| | | – | _ | _ | — | |
| DIBROMOACETIC ACID | 000079-43-6 | X | | | х | |
| DIBROMOACETONITRILE | 003252-43-5 | X | X | | х | |
| DICHLORO-2-PROPANOL, 1,3- | 000096-23-1 | X | | | х | |
| DICHLORO-4,4'-DIAMINODIPHENYL ETHER, 3,3'- | 028434-86-8 | X | | | | |
| DICHLOROACETIC ACID | 000079-43-6 | x | | | х | |
| DICHLOROACETYLENE | 007572-29-4 | | | x | | |
| DICHLOROBENZENE, para- | 000106-46-7 | x | | | | |
| DICHLOROBENZIDINE, DIHYDROCHLORIDE, 3,3' - | 000612-83-9 | x | | | х | |
| DICHLOROBENZIDINE, 3, 3 ' - | 000091-94-1 | x | | | х | |
| DICHLOROETHANE, 1,2- | 000107-06-2 | x | x | | х | |
| DICHLOROMETHANE | 000075-09-2 | x | x | | | |
| DICHLOROPROPENE, 1,3- (TECHNICAL-GRADE) | 000542-75-6 | x | | | х | |
| DICHLORVOS | 000062-73-7 | x | x | x | х | ÍÍ |
| DICUMAROL | 000066-76-2 | ĺ | x | | | ÍÍ |
| DIEPOXYBUTANE, 3,4-,MESO 1,2 | 000564-00-1 | x | İ | İ | х | i i |
| DIESEL EXHAUST | 00000-00-0 | x | İ | İ | | i i |
| DIESEL FUEL MARINE | 00000-00-0 | x | İ | İ | | i i |
| DIETHANOLAMINE | 000111-42-2 | x | İ | ĺ | x | i i |
| DIETHYL METHYLPHOSPHONITE | 015715-41-0 | İ | | x | x | x |
| DIETHYL PHOSPHORAMIDIC DICHLORIDE, N.N- | 001498-54-0 | | | | | x |
| DIETHYL S-[2-(DIETHYLAMINO)ETHYL] PHOSPHOROTHIOLATE. | 0.0-000078-53-5 | | | x | | x |
| DIETHYL SULPHATE | 000064-67-5 | x | | | x | |
| DIETHYLHYDRAZINE, $1.2-$ | 001615-80-1 | x | | | | |
| DIETHYLSTILBOESTROL | 000056-53-1 | l x | x | | x | |
| DIFLUSINAL | 022494-42-2 | | x | | | |
| DIGITOXIN | 000071-63-6 | | | l V | v | l v l |
| DIGLYCIDYL RESORCINGL ETHER | 000101-90-6 | ~ | | 11 | | |
| DIHYDROSAFROLF | 000094-58-6 | | | | | |
| DIMETHANESULFONATE 1 4- | 000299-75-2 | | | | | |
| DIMETHANEBOLD ONATE, $1, 1$ | 000119-90-4 | ~ | | | | |
| DIMETHORIDENZIDINE, 5,5 (O DIRNISIDINE) | 020325-40-0 | | | | | |
| DIMETHOATBENZIDINE, 5,5 -, DIMIDROCHLORIDE | | | | 17 | 37 | |
| DIMETHID MERCORI | 000535-74-8 | | | | л | |
| DIMETHIL PHOSPHORAMIDIC DICHLORIDE, N,N- | | | | 17 | 37 | |
| DIMETRIL SULFAIE | 000077-78-1 | | | | X. | |
| DIMETHYLACETAMIDE, N,N- | 000127-19-5 | | | | х | |
| DIMETHYLAMINOAZOBENZENE, 4- | 000060-11-7 | X | X | | | |
| DIMETHYLARSENIC ACID | 0000/5060-5 | X | X | | | |
| DIMETHYLBENZIDINE, 3,3'- (O-TOLIDINE) | 000119-93-7 | X | | | x | |
| DIME"I'HYLCARBAMOYL CHLORIDE | 000079-44-7 | X | X | | | |
| DIMETHYLFORMAMIDE | 000068-12-2 | | X | | х | |
| DIMETHYLHYDRAZINE, 1,1- | 000057-14-7 | x | x | | х | |
| DIMETHYLHYDRAZINE, 1,2- | 000540-73-8 | | x | | х | |
| DI-N-BUTYL PHTHALATE | 000084-74-2 | | x | | | |
| DI-N-HEXYL PHTHALATE | 000084-75-3 | | x | | | |
| DINITROFLUOROANTHENE, 3,7- | 105735-71-5 | x | | | | |
| DINITROFLUOROANTHENE, 3,9- | 022505-53-2 | x | | | | |
| DINITROGEN TETROXIDE | 010544-72-6 | | | x | | x |
| DINITROPHENOL, 2,4- | 000051-28-5 | | | x | х | |
| DINITROPYRENE, 1,3- | 075321-20-9 | x | | | х | |
| DINITROPYRENE, 1,6- | 042397-64-8 | x | x | | | |

| CHEMICAL NAME | CAS # | SC | RT | AT | SA | DHS |
|---|-----------------|----|-------|----|----|-----|
| DINITROPYRENE 1.8- | 042397-65-9 | | _ | _ | - | |
| DINITROTOLUENE. 2.4- | 000121-14-2 | x | x | | x | ł |
| DINITROTOLUENE, 2,6- | 000606-20-2 | | x | | x | ł |
| DINOSEB | 000088-85-7 | | x | | x | i |
| | 000117-81-7 | | v | | 21 | |
| DIOVANE 1 4- | 000117 01 7 | | | | v | |
| DIDUFNUL UVDANTOIN | 000125 51 1 | | | | л | |
| DIPROPUL PHOSPHORAMIDIC DICHLORIDE N N- | 040881-98-9 | | | | | |
| DIRECT BLACK 38 | 010001 00 0 | | | | | |
| DIRECT BLACK 50 | 002507-46-2 | | | | | |
| | 002002 40 2 | | | | | |
| DISPERSE DIVE I | 002475-45-8 | | 37 | | | |
| DOXORUBICIN HIDROCHLORIDE (ADRIAMICIN) | 023214 - 92 - 0 | | X | | | |
| E CLACC | 000004-20-0 | | | | | |
| | 000000-00-0 | | | | | |
| | 000115-29-7 | | x | x | х | |
| | 000072-20-8 | | | x | х | |
| EPICHLOROHYDRIN | 000106-89-8 | | x | | х | |
| EPOXYBUTANE, 1,2- | 000106-88-7 | X | | | | |
| ERGOTAMINE TARTRATE | 000379-79-3 | | х | | | |
| ERIONITE | 066733-21-9 | x | | | | |
| ESTRA-1,2,5(10),7-TETRAEN-17-ONE,3-(SULFOOXY)-,SODIUM SAL | 016680-47-0 | x | | | | |
| ETHANEDIOL, N,N- (2-DIETHYLAMINO) | 000100-38-9 | | | | | x |
| ETHANETHIOL, N,N- (2-DIISOPROPYLAMINO) | 005842-07-9 | | | | | x |
| ETHANETHIOL, N, N- (2-DIMETHYLAMINO) | 000108-02-1 | | | | | x |
| ETHANETHIOL, N,N- (2-DIPROPYLAMINO) | 005842-06-8 | | | | | x |
| ETHIDIUM BROMIDE | 001239-45-8 | | х | | | |
| ETHIONAMIDE | 000536-33-4 | | х | | | |
| ETHYL ACRYLATE | 000140-88-5 | x | | | х | |
| ETHYL METHANESULPHONATE | 000062-50-0 | x | х | | | |
| ETHYL O-2-DIISOPROPYLAMINOETHYL METHYLPHOSPHONITE,O-(QL) | 057856-11-8 | | | x | х | x |
| ETHYL PHOSPHONYL DIFLUORIDE | 000753-98-0 | | | x | х | x |
| ETHYLENE CHLOROHYDRIN | 000107-07-3 | | | х | х | |
| ETHYLENE DIBROMIDE | 000106-93-4 | x | х | | х | |
| ETHYLENE GLYCOL ETHERS | 00000-00-0 | | х | | | |
| ETHYLENE OXIDE | 000075-21-8 | x | х | | | |
| ETHYLENE THIOUREA | 000096-45-7 | x | | | | |
| ETHYLHEXANOIC ACID | 000149-57-5 | | х | | х | |
| ETHYL-N-NITROSOUREA,N- | 000759-73-9 | x | х | | | |
| ETHYLPHOSPHONOTHIOIC DICHLORIDE | 000993-43-1 | | | | | x |
| ETHYL-S-DIMETHYLAMINOETHYLMETHYLPHOSPHONOTHIOLATE (VX) | 050782-69-9 | | | x | х | x |
| ETOPOSIDE | 033419-42-0 | x | х | | | |
| ETRETINATE | 054350-48-0 | | х | | | |
| FLUORINE | 007782-41-4 | | | x | | x |
| FLUOROURACIL | 000051-21-8 | | х | | | |
| FLUOXYMESTERONE | 000076-43-7 | | х | | | |
| FORMALDEHYDE | 000050-00-0 | x | х | | x | |
| FOWLER'S SOLUTION | 001332-10-1 | x | х | | | Í |
| FUMONISIN B1 | 116355-83-0 | x | | | | |
| FURAN | 000110-00-9 | x | | | x | İ |
| FURYLAMIDE | 003688-53-7 | x | х | | | İ |

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| CHEMICAL NAME | CAS # | SC | RT | AT | SA | DHS |
|--|-------------|----|----|----|--------|---------|
| GALLIUM ARSENTDE | 001303-00-0 | | _ | — | _ | |
| CANCICLOVIE | 001303 00 0 | | v | | | |
| CANCICLOVIR HYDROCHLOPIDE | 107910-75-8 | | | | | |
| CASOLINE | 008006-61-9 | v | ~ | | v | |
| CASOLINE FUCINE EXHAUST FUMES | | | | | л | |
| CERMANE | 000000 00 0 | | | v | | |
| GERMANTIM TETRAFLUORIDE | 007783-58-6 | | | v | v | v |
| GLASS FIBERS SPECIALTY (E-GLASS '475') | 000000-00-0 | v | | | л | |
| GLASSWOOL (RESDIRABLE SIZE) | | v | | | | |
| $CLU = D = 1 (2 - \Delta MTNO - 6 - METHYLDIDVRIDO[1 2 - a:3' 2' - d] TMIDAZOLE$ | 067730-11-4 | | v | | | |
| GIU $p = 2/2$ AMINO O METHILDIFIKIDO[1,2 a.5, 2 a]IMIDAZOLE CIU $p = 2/2$ AMINO DI PRIDO[1,2 a.3, 2 a]IMIDAZOLE | 067730_10_3 | | | | | |
| CIVCIDAL DEUVDE | 007750-10-3 | | ~ | | 37 | |
| CIVCIDALDERIDE | 000703-34-4 | | ~~ | | A V | |
| COCCUDOL | | | | | л | |
| | 000303-43-7 | 37 | | | | |
| | 000120-07-0 | | X | | | |
| | 000052-60-6 | | X | | | |
| HALOIHANE | 000151-07-7 | | x | | | |
| HC BLUE I | 002/84-94-3 | x | | | | |
| HEPATITIS B VIRUS | 000000-00-0 | x | | | | |
| HEPATITIS C VIRUS | 000000-00-0 | x | | | | |
| HEPTACHLOR | 000076-44-8 | x | x | x | x | |
| HEPTACHLOR EPOXIDE | 001024-57-3 | x | х | x | х | |
| HEXACHLOROBENZENE | 000118-74-1 | x | х | | х | |
| HEXACHLOROBENZENE, GAMMA | 000058-89-9 | x | x | | х | |
| HEXACHLOROETHANE | 000067-72-1 | x | | | | |
| HEXACHLOROHEXANES (ALL ISOMERS) | 000608-73-1 | x | | | х | |
| HEXAMETHYLPHOSPHORAMIDE | 000680-31-9 | х | х | | х | |
| HN1 (NITROGEN MUSTARD-1) | 000538-07-8 | | | х | х | x |
| HN2 (NITROGEN MUSTARD-2) | 000051-75-2 | | | х | х | x |
| HN3 (NITROGEN MUSTARD-3) | 000555-77-1 | | | х | х | x |
| HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 | 00000-00-0 | х | | | | |
| HUMAN PAPILLOMAS VIRUSES: SOME GENITAL-MUCOSAL | 000000-00-0 | х | | | | |
| HYDRAZINE | 000302-01-2 | х | х | | х | |
| HYDRAZINE SULFATE (1:1) | 010034-93-2 | x | х | | х | |
| HYDRAZOBENZENE | 000122-66-7 | х | | | | |
| HYDROGEN CYANIDE | 000074-90-8 | | | х | х | x |
| HYDROGEN FLUORIDE | 007664-39-3 | | | х | х | |
| HYDROGEN SELENIDE | 007783-07-5 | | | х | х | x |
| HYDROGEN SULFIDE | 007783-06-4 | | | х | | |
| HYDROXYUREA | 000127-07-1 | | x | | | |
| IDARUBICIN HYDROCHLORIDE | 057852-57-0 | | x | | | |
| IFOSFAMIDE | 003778-73-2 | | x | | | |
| INDENO[1,2,3-cd]PYRENE | 000193-39-5 | x | | | | |
| INIDIUM PHOSPHIDE | 022398-80-7 | x | | | | |
| IQ(2-AMINO-3-METHYLIMIDAZO[4,5-f]QUINOLINE) | 076180-96-6 | x | | | | ÍÍ |
| IRON-DEXTRAN COMPLEX | 009004-66-4 | x | | i | | İ |
| ISOPRENE | 000078-79-5 | x | | İ | | İ |
| ISOPROPYLPHOSPHONOTHIOIC DICHLORIDE | 001498-60-8 | | İ | x | х | x |
| ISOPROPYLPHOSPHONYL DIFLUORIDE | 000677-42-9 | | | x | х | x |
| ISOTRETINOIN | 004759-48-2 | | x | İ | | I İ |

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| CHEMICAL NAME | CAS # | SC | RT | TA | SA | DHS I |
|--|------------------------------------|----|----|--------------|-------|------------|
| KEPONE (CHLORDECONE) | 000143-50-0 | x | x | — I | x | |
| LASIOCARPINE | 000303-34-4 | x | x | ĺ | | i |
| LEAD PHOSPHATE | 007446-27-7 | x | x | | | i |
| LEAD ACETATE | 000301-04-2 | x | x | | | ł |
| LEAD ACETATE (II) TRIHYDRATE | 006085-56-4 | x | x | | | i |
| LEAD AND COMPOUNDS | 007439-92-1 | x | x | | | i |
| LEAD CHROMATE | 007758-97-6 | x | | | | ł |
| LEAD CHROMATE (VI) OXIDE | 018454-12-1 | x | x | | | |
| | 000059-92-7 | | x | | | |
| LEWISITE 1 | 000541-25-3 | | | x | x | x |
| LEWISITE 2 | 040334-69-8 | | | x | x | x |
| LEWISTTE 3 | 040334-70-1 | | | x | v | x |
| I.TNDANE AL.PHA | 000319-84-6 | v | | ~ | ~ | ~ |
| I.INDANE RETA | 000319-85-7 | v | | | | |
| I.INURON | 000330-55-2 | | v | | | ł |
| LITHIUM AMIDE | 00000000000000 | | ~ | | | |
| LITHIUM AND COMPOUNDS | 007782 00 0 | | v | | | ~ |
| LITHIUM NITETOF | 026134-62-3 | | ~ | | | |
| | 020134 02 3 | | ~~ | | | ~ |
| MACENTA (CONTAINING OF DAGIC DED Q) | 000632_99_5 | | ~ | I | | |
| MAGENIA (CONTAINING CI BASIC RED 9) | 000032 - 33 - 3 012057 - 74 - 8 | x | | | | |
| MAGNESIUM PHOSPHIDE MANCANEGE TEICAEDONUI METUVI CUCIODENTADIENVI | 012037 - 74 - 0 012108 - 13 - 3 | | | | ~ | ~ |
| MANGANESE IRICARDONIL MEINILCICLOPENIADIENIL Mol ALDUA C/2 AMINO 2 METUVI QU DVDIDO[2 2 b]INDOIE) | 012100 - 13 - 3 | 37 | | | ~ | |
| MERENDAZOLE | 000000-03-7 021/21 20 7 | | | | | |
| | 031431-39-7 | ~ | x | | | |
| MEDROXIPROGESIERONE ACEINIE | 000071-30-9 | | ~ | | | |
| MEGESIROL ACEIAIE | 000393-33-3 | | ~ | I | | |
| MEDIPALAN MEDIUNY AND COMPOUNDS | 000140-02-3 | | | | | |
| MERCURI AND COMPOUNDS | 007439 - 97 - 0 000531 - 76 - 0 | ~ | x | | ~ | |
| | 000551 - 70 - 0 | | 37 | | | |
| | 000072 - 33 - 3 | | | | | |
| | 000000-50-0 | | X | | | ļ |
| METHOIREAALE SODIUM | 0154/5-50-0 | | x | | | ļ |
| METHOXIPSORALEN, 5- | 000484-20-8 | | | | | ļ |
| METHYL GULORIDE | 000074-83-9 | | х | x | x | ļ |
| METHYL CHLORIDE | 000074-87-3 | | x | | | |
| METHYL DIFLUOROPHOSPHITE (DF) | 000676-99-3 | | | x | x | x |
| METHYL HYDRAZINE | 000060 - 34 - 4 | | x | x | x | ļ |
| METHYL ISOBULYL KEIONE | 000108-10-1 | x | | | | |
| METHYL ISOCYANATE | 000624-83-9 | | | x | x | ļ |
| METHYL MERCURY | 022967-92-6 | | | x | x | |
| METHYL MERCURY AND COMPOUNDS | 000000-00-0 | | | x | x | |
| METHYL METHANESULPHONATE | 000066-27-3 | x | x | | | |
| METHYL-I-NITROANTHRAQUINONE, 2- (UNCERTAIN PURITY) | 000129-15-7 | x | | | | ļ |
| METHYLAMINOPTERIN | 000059-05-2 | | x | | | ļ |
| METHYLARSONIC ACID | 000124-58-3 | x | x | | | ļ |
| METHYLAZIRIDINE, 2- (PROPYLENEIMINE) | 000075-55-8 | x | x | x | x | |
| METHYLAZOXYMETHANOL | 000590-96-5 | x | | | | ļ |
| METHYLAZOXYMETHANOL ACETATE | 000592-62-1 | x | x | | | ! |
| METHYLCHRYSENE, 5- | 003697-24-3 | x | | | | |
| METHYLDICHLOROARSINE | 000593-89-5 | x | х | x | | |

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| CHEMICAL NAME | CAS # | SC | RT | AT | SA | DHS |
|---|-----------------|----|----|----|----|------|
| | 000075-54-7 | _ | _ | - | - | |
| METHYLENE BIS(2-CHLOROANTLINE), $4.4-$ (MOCA) | 000101 - 14 - 4 | v | | | x | |
| METHYLENE BIS(2-METHYLANILINE), $4.4'-$ | 000838-88-0 | x | | | | ł |
| METHYLENEBIS(N,N-DIMETHYL)BENZENAMINE, 4,4' | 000101-61-1 | x | | | | ł |
| METHYLENEDIANILINE, 4,4' | 000101-77-9 | x | | | | i |
| METHYLENEDIANILINE, 4, 4'-DIHYDROCHLORIDE | 013552-44-8 | x | | | | i |
| METHYLEUGENOL | 000093-15-2 | x | | | | i |
| METHYLFLUOROSULFONATE | 000421-20-5 | | | x | | ł |
| METHYLIMIDAZOLE, 2- | 000693-98-1 | x | | | | i |
| METHYLIMIDAZONE, 4- | 000822-36-6 | x | | | x | i |
| METHYL-N-NITRO-N'-NITROSOGUANIDINE.N- (MNNG) | 000070-25-7 | x | x | | | i |
| METHYL-N-NITROSOUREA,N- | 000684-93-5 | x | x | | | i |
| METHYLPHOSPHONOTHIOIC DICHLORIDE | 000676-98-2 | | | | | x |
| METHYLSTYRENE, ALPHA | 000098-83-9 | x | | | | i |
| METHYLTESTOSTERONE | 000058-18-4 | | x | | | i |
| METHYLTHIOURACIL | 000056-04-2 | x | x | | | i |
| METRONIDAZOLe | 000443-48-1 | x | x | | | i |
| MICHLER'S KETONE | 000090-94-8 | x | | | | i |
| MICROCYSTIN | 101043-37-2 | x | | | | i |
| MINERAL OILS, UNTREATED AND MILDLY TREATED | 00000-00-0 | x | | | x | i |
| MIREX | 002385-85-5 | x | x | | x | ł |
| MISOPROSTOL | 059122-46-2 | | x | | | i |
| MITOMYCIN C | 000050-07-7 | x | x | x | | i |
| MITOXANTRONE HYDROCHLORIDE | 070476-82-3 | | x | | x | i |
| MONOCHLORO-1, 2-PROPANDIOL, 3- | 000096-24-2 | x | x | | x | i |
| MONOCROTALINE | 000315-22-0 | x | x | | | i |
| MUSTARD GAS (SULPHUR MUSTARD) | 000505-60-2 | x | x | x | x | i |
| MUSTARD, O- (T) | 063918-89-8 | | | | | x |
| MYCLOBUTANIL | 088671-89-0 | İ | x | | | i |
| N-[4-(5-NITR-2-FURYL)-2-THIAZOYL]ACETAMIDE | 000531-82-8 | x | | i | | i |
| NAFENOPIN | 003771-19-5 | x | | i | | i |
| NAPHTHALENE | 000091-20-3 | x | | i | | i |
| NAPHTHYL METHYLCARBAMATE | 000063-25-2 | | x | i | | i |
| NAPHTHYLAMINE, 2- | 000091-59-8 | x | x | i | x | İ |
| NAPHTHYLAMINE, ALPHA- | 000134-32-7 | x | | i | x | i |
| NAPHTHYLAMINE, N, N-BIS(2CHLOROETHYL)-2- | 000494-03-1 | x | | i | | İ |
| NICKEL (II) ACETATE (1:2) | 000373-02-4 | x | | i | | İ |
| NICKEL (II) CARBONATE (1:1) | 003333-67-3 | x | | i | | i |
| NICKEL (II) HYDROXIDE | 012054-48-7 | x | | | | Í |
| NICKEL (II) OXIDE (1:1) | 001313-99-1 | x | | | | Í |
| NICKEL (III) HYDROXIDE | 012125-56-3 | x | | | | |
| NICKEL BISCYCLOPENDADIENE | 001271-28-9 | x | | ĺ | | Í |
| NICKEL CARBONYL | 013463-39-3 | x | | x | | |
| NICKEL COMPOUNDS | 00000-00-0 | x | | | | |
| NICKEL SULFIDE (3:2) | 012035-72-2 | x | x | | | |
| NICKEL, METALLIC AND ALLOYS | 007440-02-0 | x | | | | |
| NICOTINE | 000054-11-5 | | x | x | x | |
| NIFEDIPINE | 021829-25-4 | | x | | | |
| NIRIDAZOLE | 000061-57-4 | x | x | | | |
| NITRIC ACID (FUMING) | 007697-37-2 | | | x | x | |

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| CHEMICAL NAME | CAS # | SC | RT | AT | SA | DHS |
| | | i _ ' | i _ i | i _ ' | I _ İ | i i |
| NITRIC OXIDE | 010102-43-9 | i i | i i | x | į İ | x |
| NITRILOTRIACETIC ACID AND SALTS | 000139-13-9 | x | | ! | į l | |
| NITRILOTRIACETIC ACID, DISODIUM SALT | 015467-20-6 | x | | | | i i |
| NITRILOTRIACETIC ACID, DISODIUM SALT, MONOHYDRATE | 023255-03-0 | x | i i | į i | į i | i i |
| NITRILOTRIACETIC ACID, MONOSODIUM SALT | 018994-66-6 | x | | ļ | i i | i i |
| NITRILOTRIACETIC ACID, SODIUM SALT | 010042-84-9 | x | i i | į i | i i | i i |
| NITRILOTRIACETIC ACID, TRISODIUM SALT | 005064-31-3 | x | i i | j i | į i | i i |
| NITRILOTRIACETIC ACID, TRISODIUM SALT, MONOHYDRATE | 018662-53-8 | x | i i | i i | i i | i i |
| NITROACENAPHTHENE, 5- | 000602-87-9 | x | i i | i i | i i | i i |
| NITROANISOLE, 2- | 000091-23-6 | x | i | i i | ı i | i i |
| NITROBENZANTHRONE, 3- | 017117-34-9 | x | | i i | į i | i i |
| NITROBENZENE | 000098-95-3 | x | 1 | | x | i i |
| NITROBIPHENYL, 4- | 000092-93-3 | x | 1 | | | í l |
| NITROCHRYSENE, 6- | 007496-02-8 | x | 1 | | i i | i i |
| NITROFEN (TECHNICAL-GRADE) | 001836-75-5 | x | | | x | í l |
| NITROFLUORENE 2- | 000607-57-8 | v | | | | i l |
| NTTROFILE FURTIONE $(5) = \Delta MINO = 2 = IMIDAZOLIDINONE 1 =$ | 000555-84-0 | x | | | | í ¦ |
| NITROPORT DIOXIDE | 0000000 0100 010102-44-0 | | | | | |
| NIROGEN DIOXIDE | 010102 44 0 000051-75-2 | -v | ~ | | · · · · · | |
| NIROGEN MUSIARD UVDDACULADIDE | 000051-75-2 | | | | | i 37 |
| NIROGEN MUSIARD NICHLORIDE | 000035-80-7 | | | | | |
| NIROGEN MUSIARD N OXIDE UVDBOCULODIDE | 000120-00-2 | | | | | |
| NIROGEN MUSIARD N-OAIDE HIDROCHLORIDE | 000302 - 70 - 3 | | | | , A | i I |
| NIROGEN ILIROAIDE | 010544 - 72 - 0 | | | | | |
| NIROGEN IRIOXIDE | | | | | x | |
| NI IROME I HANE | 000075-52-5 | X | | | | i l |
| NITROPROPANE, 2- | 0000/9-46-9 | | | | | (|
| NITROPYRENE, 1- | 005522-43-0 | X | X | | | (|
| NITROPYRENE, 4- | 05/835-92-4 | X | | | | (|
| NITROSOBUTYLBUTANOLAMINE, N- | 00381/-11-6 | X | | | | (l |
| NTTROSODIETHANOLAMINE, N- | 001116-54-7 | X | | | | í I |
| NITROSODIETHYLAMINE, N- | 000055-18-5 | x | x | | | (l |
| NITROSODIMETHYLAMINE, N- | 000062-75-9 | x | x | | | (|
| NITROSODI-n-BUTYLAMINE, N- | 000924-16-3 | x | x | | | (|
| NITROSODI-n-PROPYLAMINE, N- | 000621-64-7 | x | x | | | (|
| NITROSOMETHYLETHYLAMINE, N- | 010595-95-6 | x | | | | (|
| NITROSOMETHYLVINYLAMINE, N- | 004549-40-0 | x | | x | | í I |
| NITROSOMORPHOLINE, N- | 000059-89-2 | x | x | | | í I |
| NITROSONORNICOTINE, N'- | 016543-55-8 | x | | | | í I |
| NITROSOPIPERIDINE, N- | 000100-75-4 | x | x | | | í I |
| NITROSOPYRROLIDINE, N- | 000930-55-2 | x | x | | | 1 |
| NITROSOSACOSINE, N- | 013256-22-9 | x | | | | 1 |
| NITROSOURETHANE-N-METHYL, N- | 000615-53-2 | x | | | | |
| NITROSYL CHLORIDE | 002696-92-6 | | | | | x |
| NITROTOLUENE, 2- | 000088-72-2 | x | x | | | |
| N-NITROSOMETHYLAMINO-1-(30PYRIDYL)-1-BUTANONE, 4- (NNK) | 064091-91-4 | x | 1 i | l i | į i | i i |
| N-NITROSOMETHYLAMINO-PROPIONITRILE, 3- | 060153-49-3 | x | Í | į i | į i | í i |
| NNK(4-(N-(NITROSOMETHYLAMINO)-1-(3-PYRIDYL)-1-BUTANONE) | 064091-91-4 | x | 1 i | l i | į i | i i |
| NORETHISTERONE | 000068-22-4 | x | x | į i | į i | í i |
| NORGESTREL | 006533-00-2 | İ | x | į i | i i | i i |
| OCHRATOXIN A | 000303-47-9 | x | i i | x | į i | i i |

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|--|------------------------------------|----------|----------|----------|----|-----------|
| CHEMICAL NAME | CAS # | SC | RT | AT | SA | DHS |
| | 061200 12 0 | | _ | _ | _ | |
| OLI ODANCE SS | 001200 - 13 - 9 | | 1 | | | |
| OIL ORANGE 55 | 002040 - 17 - 3 | | | | | |
| OVAZEDAM | 020616 - 12 - 0 | | | | | |
| | 000004 - 75 - 1 | | | | | |
| OXAZOLIDININE, Z, 5- (MORPHOLINOMEIHIL)-3-[(5-NIIROFURILIDE) | NIUU3/95-88-8 | | | | | |
| OXYGEN DIFLUORIDE | 00//83-41-/ | | | | | |
| OXYMETHOLONE | 000434-07-1 | X | X | | | |
| OXYTETRACYCLINE AND COMPOUNDS (INTERNAL USE) | 000079-57-2 | | | | | |
| OZONE | 010028-15-6 | | X | X | | |
| PALYGORSKITE (FIBERS >5 MICROMETERS) | 012174-11-7 | X | | | | |
| PANFURAN (CONTAINING DIHYDROXMETHYLFURATRIZINE) | 000794-93-4 | X | | | | |
| PARAMETHADIONE | 000115-67-3 | | x | | | |
| PARATHION | 000056-38-2 | | X | X | х | |
| PCB (AROCLOR 1254) | 011097-69-1 | x | x | | х | |
| PCB (AROCLOR 1260) | 011096-82-5 | x | x | | х | |
| PENICILLAMINE | 002219-30-9 | | x | | | |
| PENTABORANE | 019624-22-7 | | | x | | |
| PENTACHLOROBIPHENYL | 025429-29-2 | x | | | | |
| PENTACHLOROBIPHENYL, 3, 4, 5, 3', 4'- (PCB-126) | 057465-28-8 | x | | | | |
| PENTACHLOROPHENOL | 000087-86-5 | | | x | х | |
| PENTOSTATIN | 053910-25-1 | | x | | | |
| PHENACETIN | 000062-44-2 | x | | | | |
| PHENAZOPYRIDINE HYDROCHLORIDE | 000136-40-3 | x | ĺ | | | ÍÍ |
| PHENOBARBITAL | 000050-06-6 | x | x | İ | | i i |
| PHENOTHALEIN | 000077-09-8 | x | İ | İ | | i i |
| PHENOXYBENZAMINE HYDROCHLORIDE | 000062-92-3 | x | x | İ | | i i |
| PHENYL GLYCIDYL ETHER | 000122-60-1 | x | İ | | x | i i |
| PHENYTOIN | 000057-41-0 | x | x | İ | | i i |
| PHLP(2-AMINO-1-METHYL-6-PHENYLIMIDAZO[4,5-B]PYRIDINE) | 105650-23-5 | x | i | İ | | i i |
| PHOSGENE | 000075-44-5 | i | i | x | | x |
| PHOSPHINE | 007803-51-2 | i | i | x | | x |
| PHOSPHORUS (YELLOW) | 007723-14-0 | İ | İ | x | | i i |
| PHOSPHORUS OXYCHLORIDE | 010025-87-3 | ĺ | ĺ | | | x |
| PHOSPHORUS TRICHLORIDE | 007719-12-2 | ĺ | ĺ | x | | x |
| PIPERAZINE ESTRONE SULFATE | 007280-37-7 | x | ĺ | | | i i |
| PIPOBROMAN | 000054-91-1 | | x | | | |
| PLICAMYCIN | 018378-89-7 | | x | | | |
| POLYBROMINATED BIPHENYL (FF-1) | 067774-32-7 | x | x | | | |
| POLYBROMINATED BIPHENYLS | 059536-65-1 | | | | | |
| DOLVCHLORINATED BIDHENVLS | 001336-36-3 | | | | | |
| DOL VCHLOPODHENOLS | 00000-00-0 | | | | | |
| DOLYCYCLIC AROMATIC HYDROCARBONS | | | | | | |
| DONOFALL 2D | 003564-09-8 | | | | | |
| DONCEAU MY | 003761-53-3 | | | | | |
| DOTACCTIM DOMATE | 003701 - 33 - 3 007758 - 01 - 2 | | | | | |
| DOTASSIUM CUDOMATE (VII) | 007788-01-2 | | | | | |
| DOTACCTIM DICUDOMATE (VI) | 007709 = 00 = 0 | | | 1 | | |
| | 000266 70 1 | X | X | | | |
| FRUCARDALINE HIDRUCHLUKIDE | 000500 - 70 - 1 | | | | | |
| FRUGESIERUNE 1.2 | 00005/-83-0 | | | | | |
| PROPARE SULTONE, 1,3- | 001120-/1-4 | x | x | | x | |

| CHEMICAL NAME | CAS # | sc | RT | AT | SA | DHS |
|---|-------------|--------------|----------|----------|----------|-----------|
| | | – | – | _ | _ | |
| PROPANEDIOL, 2, 2-BIS-(BROMOETHYL)-1, 3- | 003296-90-0 | X | | | | |
| PROPARGYL BROMIDE | 000106-96-7 | | | X | | |
| PROPIOLACTONE, BETA | 000057-57-8 | x | X | | | |
| PROPIONIC NITRILE | 000107-12-0 | | | x | x | |
| PROPYLENE OXIDE | 000075-56-9 | x | x | x | x | |
| PROPYLPHOSPHONOTHIOIC DICHLORIDE | 002524-01-8 | | | x | x | x |
| PROPYLPHOSPHONYL DIFLUORIDE | 000690-14-2 | | | x | x | x |
| PROPYLTHIOURACIL | 000051-52-5 | x | x | | | |
| QUARTZ [SILICA, CRYSTALLINE (RESPIRABLE)] | 014808-60-7 | x | | | | |
| RADON AND ITS DECAY PRODUCTS | 010043-92-9 | x | | | | |
| REFRACTORY CERAMIC FIBER | 00000-00-0 | x | | | | |
| RESERPINE | 000050-55-5 | x | x | ĺ | ĺ | ÍÍ |
| RETINOIC ACID, 1,3-CIS- | 004759-48-2 | İ | x | i | | i i |
| RIBVARIN | 036791-04-5 | İ | X | i | İ | i i |
| RICIN | 009009-86-3 | İ | i | x | | i i |
| RIDDELLIINE | 023246-96-0 | x | | ĺ | | i i |
| RIFAMPIN | 013292-46-1 | | x | 1 | | |
| ROCKWOOL | 000000-00-0 | x | | 1 | | |
| SACCHARIN | 000081-07-2 | | | 1 | | |
| SACCHARIN CALCIIM SALT | 006485-34-3 | | | 1 | | |
| SACCHARIN, CALCION SALI | 000128-44-9 | | | | | |
| SAEDOLE | | | | 1 | | |
| | | | | | | |
| SARIN | 000107-44-8 | | | | | |
| SAXIIUXIN | 035523-89-8 | 1 | | | | |
| SELENIUM HEXAFLUORIDE | 007783-79-1 | | | X | | |
| SENARMONITE | 012412-52-1 | X | | | | |
| SESQUIMUSTARD | 003563-36-8 | | | X | | x |
| SHALE-OILS | 068308-34-9 | x | | | x | |
| SILICA, CRYSTALLINE CRISTOBALITE | 014464-46-1 | x | | | | |
| SILICA, CRYSTALLINE TRIDYMITE | 015468-32-3 | x | | | | |
| SILICA, CRYSTALLINE TRIPOLI | 001317-95-9 | x | | | | |
| SILICA, CRYSTALLINE (RESPIRABLE) | 00000-00-0 | x | | | | |
| SILICIC ACID BERYLLIUM SALT | 015191-85-2 | x | | | | |
| SODIUM AZIDE | 026628-22-8 | | x | x | x | |
| SODIUM DICHROMATE (VI) | 010588-01-9 | x | x | | x | |
| SODIUM FLUOROACETATE | 000062-74-8 | | | x | x | ÍÍ |
| SODIUM ortho-PHENYLPHENATE | 000132-27-4 | x | İ | İ | İ | i i |
| SOMAN | 000096-64-0 | İ | İ | x | x | x |
| SOOTS, TARS, MINERAL OILS | 00000-00-0 | x | İ | i | | i i |
| STEPTOMYCIN SULFATE | 003801-74-0 | ĺ | x | | | i i |
| STERIGMATOCYSTIN | 010048-13-2 | x | x | | | i i |
| STIBINE | 007803-52-3 | | | x | | v |
| STREPTOZOTOCIN | 018883-66-4 | | | | | |
| STRONTILIM CHROMATE (VI) | 007789-06-2 | | 1 | 1 | | |
| CTDVCUNINE | 000057-24-9 | | | ~~ | | |
| CTVP FNF | | ~ | ~ | | ~ | |
| CTUDENE 7 0 OVIDE | 000000-42-5 | <u>~</u> | X | 1 | <u>^</u> | |
| | | X. | | 1 | X. | |
| SULFALLATE | 000095-06-7 | X | | | | |
| SULFUR MUSTARD (MUSTARD GAS (H)) | | | | | X | |
| SULFUR TETRAFLUORIDE | 00/783-60-0 | | | X | | x |

| CHEMICAL NAME CAS # SC RT AT SA DISCULT SULFUR TRIOXIDE 007446-11-9 x - < | | | | | | | |
|--|--|-------------|---------|--------------|----------|----------|-----------|
| SULFUR TRIOXIDE OT46-11-9 X I | CHEMICAL NAME | CAS # | SC | RT | AT | SA | DHS |
| SULFURC ACID 007446-11-9 x <td></td> <td></td> <td>_</td> <td> _</td> <td>İ _</td> <td>İ _</td> <td>i i</td> | | | _ | _ | İ _ | İ _ | i i |
| SULFURIC ACID 00764-9-39 x <td>SULFUR TRIOXIDE</td> <td>007446-11-9</td> <td>x</td> <td></td> <td></td> <td></td> <td></td> | SULFUR TRIOXIDE | 007446-11-9 | x | | | | |
| SULFURIC ACLD, FUNING, MIST 002973-10-6 x x x SULFURIC ACLD, FUNING, MIST 0038194-55-7 x x x x SULIDAC 038194-55-7 x x x x x TALC CONTAINING ASBESTIFORM FIBRES 00000-000-0 x | SULFURIC ACID | 007664-93-9 | x | | | | |
| SULFUNCA CACLD, FUMING, MIST 008014-9-7 x | SULFURIC ACID, DIISOPROPYL ESTER | 002973-10-6 | x | | | x | |
| SULINDAC 0.38194-51-2 x x x x TALU CONTAINING ASBESTIFOM FIBRES 000007-0-0 x x x TAMOXIFEN AND SALTS 010540-29-1 x x x x TELLURIUM HEXAFLUORIDE 00058-20-8 x x | SULFURIC ACID, FUMING, MIST | 008014-95-7 | x | | | | |
| TABUN 00007-1-6 < | SULINDAC | 038194-50-2 | | X | | | |
| TALC CONTAINING ASBESTIFORM FIBRES 000000-00 x | TABUN | 000077-81-6 | | | x | x | |
| TAMOXIFEN AND SALTS 010540-99-1 x <t< td=""><td>TALC CONTAINING ASBESTIFORM FIBRES</td><td>000000-00-0</td><td>x</td><td> </td><td></td><td></td><td> </td></t<> | TALC CONTAINING ASBESTIFORM FIBRES | 000000-00-0 | x | | | | |
| TELLORIUM HEXAFLUORIDE 00783-39-4 | TAMOXIFEN AND SALTS | 010540-29-1 | x | X | | | |
| TERANITROMETHANE 00059-14-8 x TESTOSTERONE CYPIONATE 000058-20-8 x TESTOSTERONE CNANTHATE 0001746-01-6 x x x x TETRACHLORODIBENZO-para-DIOXIN, 2,3,7,8- (TCCD) 000127-18-4 x x x TETRACHLORODIBENZO-para-DIOXIN, 2,3,7,8- (TCCD) 000127-18-4 x x | TELLURIUM HEXAFLUORIDE | 007783-80-4 | | | x | x | x |
| TESTOSTERONE CYPIONATE 000315-37-7 x TESTOSTERONE ENANTHATE 000315-37-7 x x x x TETRACHLORODIBENZO-PARA-DIOXIN, 2,3,7,8- (TCCD) 00147-01-6 x x x x x TETRACHLORODIBENZO-PARA-DIOXIN, 2,3,7,8- (TCCD) 00147-01-6 x <td>TERANITROMETHANE</td> <td>000509-14-8</td> <td>x</td> <td></td> <td></td> <td></td> <td> </td> | TERANITROMETHANE | 000509-14-8 | x | | | | |
| TESTOSTERONE ENANTHATE 000315-37-7 | TESTOSTERONE CYPIONATE | 000058-20-8 | | x | | | |
| TETRACHLORODIBENZO-PARA-DIOXIN, 2,3,7,8- (TCCD) 001127-18-4 x <td>TESTOSTERONE ENANTHATE</td> <td>000315-37-7</td> <td></td> <td>x</td> <td></td> <td></td> <td></td> | TESTOSTERONE ENANTHATE | 000315-37-7 | | x | | | |
| TETRACHLOROETHYLENE 000127-18-4 x <t< td=""><td>TETRACHLORODIBENZO-para-DIOXIN, 2,3,7,8- (TCCD)</td><td>001746-01-6</td><td>x</td><td>x</td><td>x</td><td>x</td><td></td></t<> | TETRACHLORODIBENZO-para-DIOXIN, 2,3,7,8- (TCCD) | 001746-01-6 | x | x | x | x | |
| TETRACYCLINES 000060-54-8 x <td>TETRACHLOROETHYLENE</td> <td>000127-18-4</td> <td>х</td> <td>x</td> <td></td> <td>x</td> <td></td> | TETRACHLOROETHYLENE | 000127-18-4 | х | x | | x | |
| TETRAETHYL EXAD 000078-00-2 x< | TETRACYCLINES | 000060-54-8 | | x | | | |
| TETRAETHYL PYROPHOSPHATE 000107-49-3 | TETRAETHYL LEAD | 000078-00-2 | x | x | x | x | |
| TETTRAETHVILTHURAM DISULFIDE 000097-77-8 x | TETRAETHYL PYROPHOSPHATE | 000107-49-3 | | | x | x | |
| TETTAFLUCRETHYLENE 000116-14-3 x TETRAMETHYL SUCCINONITRILE 00333-52-6 x TETRANTROMETHANE 000509-14-8 x TETRANTROMETHANE 000509-14-8 x | TETRAETHYLTHIURAM DISULFIDE | 000097-77-8 | | x | | x | |
| TETRAMETHYL SUCCINONITRILE 003333-52-6 | TETRAFLUORETHYLENE | 000116-14-3 | х | | | | |
| TETRANITROMETHANE 00050-14-8 x | TETRAMETHYL SUCCINONITRILE | 003333-52-6 | | | x | x | |
| TETERODOTOXIN 004368-28-9 x THALIDOMIDE 000050-35-1 x <td< td=""><td>TETRANITROMETHANE</td><td>000509-14-8</td><td>х</td><td></td><td></td><td></td><td> </td></td<> | TETRANITROMETHANE | 000509-14-8 | х | | | | |
| THALDOMIDE 000050-35-1 x x x x THIAZOLE,2(2-FORMYLHYDROZINE)-4-(5-NITRO-2-FURYL) 003570-75-0 x <t< td=""><td>TETRODOTOXIN</td><td>004368-28-9</td><td></td><td></td><td>x</td><td></td><td> </td></t<> | TETRODOTOXIN | 004368-28-9 | | | x | | |
| THIAZOLE, 2 (2 - FORMYLHYDROZINE) - 4 - (5 - NITRO - 2 - FURYL) 003570 - 75 - 0 x | THALIDOMIDE | 000050-35-1 | | x | | x | |
| THIOACETAMIDE 000062-55-5 x x THIODIANILINE, 4,4'- 000139-65-1 x THIODIGLYCOL 000111-48-8 | THIAZOLE, 2(2-FORMYLHYDROZINE)-4-(5-NITRO-2-FURYL) | 003570-75-0 | x | | | | |
| THIODIANILINE, 4,4'- 000139-65-1 x < | THIOACETAMIDE | 000062-55-5 | x | x | | | |
| THIODIGLYCOL 000111-48-8 <td>THIODIANILINE, 4,4'-</td> <td>000139-65-1</td> <td>x</td> <td></td> <td></td> <td></td> <td> </td> | THIODIANILINE, 4,4'- | 000139-65-1 | x | | | | |
| THIOGUANINE 000154-42-7 | THIODIGLYCOL | 000111-48-8 | | | | | x |
| THIOPHENOL 000108-98-5 | THIOGUANINE | 000154-42-7 | | x | | | |
| THIOTEPA 000052-24-4 x x x 1 THIOURACIL 000141-90-2 x x 1 1 THIOURAACIL 000062-56-6 x x 1 1 THORIUM DIOXIDE 001314-20-1 x x 1 1 1 TITANIUM DIOXIDE 013463-67-7 x 1 <t< td=""><td>THIOPHENOL</td><td>000108-98-5</td><td></td><td></td><td>x</td><td>x</td><td> </td></t<> | THIOPHENOL | 000108-98-5 | | | x | x | |
| THIOURACIL 000141-90-2 x x | THIOTEPA | 000052-24-4 | x | x | x | | |
| THIOUREA 000062-56-6 x x x | THIOURACIL | 000141-90-2 | x | x | | | |
| THORIUM DIOXIDE 001314-20-1 x < | THIOUREA | 000062-56-6 | x | x | | | ÍÍ |
| TITANIUM DIOXIDE 013463-67-7 x 1 1 x TITANIUM TETRACHLORIDE 007550-45-0 1 1 x 1 TOBACCO PRODUCTS, SMOKELESS 000000-00-0 x x 1 <t< td=""><td>THORIUM DIOXIDE</td><td>001314-20-1</td><td>x</td><td>i</td><td>İ</td><td>İ</td><td>i i</td></t<> | THORIUM DIOXIDE | 001314-20-1 | x | i | İ | İ | i i |
| TITANIUM TETRACHLORIDE 007550-45-0 1 | TTTANTIM DIOXIDE | 013463-67-7 | l x | | | | i i |
| TOBACCO PRODUCTS, SMOKELESS 000000-00-0 x | | 007550-45-0 | | 1 | | | |
| TOBACCO FRODUCTIS, SMORELESS 000000-00-0 x x TOBACCO SMOKE 000000-00-0 x x TOLUENE 000108-88-3 x TOLUENE DIISOCYANATE, 1,3- 026471-62-5 x x TOLUENE DIISOCYANATE, 2,4- 000584-84-9 x TOLUIDINE DIISOCYANATE, 2,6- 000091-08-7 x TOLUIDINE HYDROCHLORIDE, 0- 000636-21-5 x x TOLUIDINE, ORTHO- 000095-53-4 x TOXAPHENE (POLYCHLORINATED CAMPHENES) 008001-35-2 x x TREOSULPHAN 000299-75-2 x x TRICHLOROETHYLENE 000079-01-6 x x TRICHLOROMETHINE 000817-09-4 x | TORACCO DRODUCTS SMOKELESS | 000000-00-0 | ~ | | | | |
| TOBACCO SMORE 000000-00-0 x x TOLUENE 000108-88-3 x x TOLUENE DIISOCYANATE, 1,3- 026471-62-5 x x TOLUENE DIISOCYANATE, 2,4- 000584-84-9 x TOLUIDINE HYDROCHLORIDE, 0- 000091-08-7 x TOLUIDINE, ORTHO- 000095-53-4 x TONIPOSIDE 029767-20-2 x x TOXAPHENE (POLYCHLORINATED CAMPHENES) 008001-35-2 x x TRICHLOROETHYLENE 000079-01-6 x x | TODACCO PRODUCTS, SMORELESS | | | | | | |
| TOLUENE 000108-88-3 x | TOBACCO SMOKE | 000000-00-0 | | | | | |
| TOLUENE DIISOCYANATE, 1,3- 026471-62-5 x x | TOLUENE | 000108-88-3 | | x | | x | |
| TOLUENE DIISOCYANATE, 2,4- 000584-84-9 x | TOLUENE DIISOCYANATE, 1,3- | 026471-62-5 | x | x | | | |
| TOLUENE DIISOCYANATE, 2,6- 000091-08-7 x TOLUIDINE HYDROCHLORIDE, O- 000636-21-5 x TOLUIDINE, ORTHO- 000095-53-4 x x x TONIPOSIDE 029767-20-2 x x TOXAPHENE (POLYCHLORINATED CAMPHENES) 008001-35-2 x x TREOSULPHAN 000299-75-2 x x TRICHLOROETHYLENE 000079-01-6 x x TRICHLOROMETHINE 000817-09-4 x | TOLUENE DIISOCYANATE, 2,4- | 000584-84-9 | x | | | | |
| TOLUIDINE HYDROCHLORIDE, O- 000636-21-5 x | TOLUENE DIISOCYANATE, 2,6- | 000091-08-7 | x | | | | |
| TOLUIDINE, ORTHO- 000095-53-4 x | TOLUIDINE HYDROCHLORIDE, O- | 000636-21-5 | x | İ | İ | İ | i i |
| TONIPOSIDE 029767-20-2 x x TOXAPHENE (POLYCHLORINATED CAMPHENES) 008001-35-2 x x TREOSULPHAN 000299-75-2 x x TRICHLOROETHYLENE 000079-01-6 x x TRICHLOROMETHINE 000817-09-4 x | TOLUIDINE ORTHO- | 000095-53-4 | l x | | x | x | i i |
| TONIFOSIBE 029707-20-2 x x TOXAPHENE (POLYCHLORINATED CAMPHENES) 008001-35-2 x x TREOSULPHAN 000299-75-2 x x TRICHLOROETHYLENE 000079-01-6 x x TRICHLOROMETHINE 000817-09-4 x | TONIDOCIDE | 020767 20 2 | | | 11 | | 1 I |
| TOTAPHENE (POLICHLORINATED CAMPHENES) 008001-35-2 x x x TREOSULPHAN 000299-75-2 x x TRICHLOROETHYLENE 000079-01-6 x x TRICHLOROMETHINE 000817-09-4 x | | | | <u>x</u> | | | 1 I |
| TREOSULPHAN 000299-75-2 x x TRICHLOROETHYLENE 000079-01-6 x x TRICHLOROMETHINE 000817-09-4 x | IOXAPHENE (POLYCHLORINATED CAMPHENES) | 008001-35-2 | X | X | | X | |
| TRICHLOROETHYLENE 000079-01-6 x x TRICHLOROMETHINE 000817-09-4 x | TREOSULPHAN | 000299-75-2 | x | X | | | ļļ |
| TRICHLOROMETHINE 000817-09-4 x | TRICHLOROETHYLENE | 000079-01-6 | x | x | | | |
| | TRICHLOROMETHINE | 000817-09-4 | x | | | | |

| CHEMICAL NAME | CAS # | sc | RT | AT | SA | DHS |
|--|-------------|----------|---------|----------|----------|----------|
| TRICHLOROPHENOL, 2,4,6- | 000088-06-2 | x | _ | | x | |
| TRICHLOROPROPANE, 1,2,3- | 000096-18-4 | x | i | ĺ | x | i i |
| TRICHLOROSILANE | 010025-78-2 | İ | i | ĺ | i | x |
| TRIMETHADIONE | 000127-48-0 | İ | x | İ | i | i i |
| TRIPHENYLTIN HYDROXIDE | 000076-87-9 | İ | x | ĺ | x | i i |
| TRIS (2,3-DIBROMOPROPYLPHOSPHATE) | 000126-72-7 | x | x | ĺ | x | i i |
| TRP-P-1(3-AMINO-1,4-DIMETHYL-5H-PYRIDO[4,3-b]INDOLE) | 062450-07-1 | x | i i | İ | i | i i |
| TRP-P-2(3-AMINO-1-METHYL-5H-PYRIDO[4,3-b]INDOLE) | 062450-06-0 | x | x | İ | i | i i |
| TRYPAN BLUE | 000072-57-1 | x | i i | İ | i | i i |
| URACIL MUSTARD | 000066-75-1 | x | İ | İ | İ | i i |
| URETHANE | 000051-79-6 | x | x | İ | İ | İİ |
| VALPROIC ACID | 000099-66-1 | | x | ĺ | ĺ | i i |
| VANADIUM PENTOXIDE | 001314-62-1 | ĺ | j i | x | İ | İİ |
| VENOM, SNAKE, CROTALUS ADAMANTEUS | 00000-00-0 | ĺ | İ | x | ĺ | i i |
| VENOM, SNAKE, CROTALUS ATROX | 00000-00-0 | | Ì | x | ĺ | i i |
| VINBLASTINE SULFATE | 000143-67-9 | ĺ | x | İ | İ | İİ |
| VINCRISTINE SULFATE | 002068-78-2 | ĺ | x | İ | İ | İİ |
| VINYL ACETATE | 000108-05-4 | x | x | | ĺ | İİ |
| VINYL BROMIDE | 000593-60-2 | x | | | | |
| VINYL CHLORIDE | 000075-01-4 | x | x | | | |
| VINYL FLUORIDE | 000075-02-5 | x | | | | |
| VINYL-1-CYCLOHEXENE DIEPOXIDE, 4- | 000106-87-6 | x | | | x | |
| VINYLCYCLOHEXENE, 4- | 000100-40-3 | x | | | | |
| WARAFIN | 000081-81-2 | | x | | x | |
| WELDING FUMES | 00000-00-0 | x | | | | |
| WOOD DUST | 013983-17-0 | x | | | | |
| XYLIDINE | 001300-73-8 | x | | x | x | |
| ZALCITABINE | 007481-89-2 | x | | | | |
| ZIDOVUDINE (AZT) | 030516-87-1 | x | | | | |
| ZINC CHROMATE (VI) HYDROXIDE HYDRATE | 015930-94-6 | x | x | | | Í |
| ZINC CHROMATE (VI)HYDROXIDE | 001300-73-8 | x | x | | | Í |

SUMMARY OF PARTICULARLY HAZARDOUS SUBSTANCES (by CAS#)

Key: SC -- Select Carcinogens RT -- Reproductive Toxins AT -- Acute Toxins SA -- Readily Absorbed Through the Skin DHS -- Chemicals of Interest

| CHEMICAL NAME | CAS # | SC | RT | AT | SA | DHS |
|--|-------------|----------|----------|----------|----------|-----------|
| | _ | - | - | | _ | |
| ACID MIST, STRONG INORGANIC | 00000-00-0 | x | | | | |
| ANGIOTENSIN CONVERTING ENZYME (ACE) INHIBITORS | 000000-00-0 | | x | | | i i |
| ANILINE AND COMPOUNDS | 00000-00-0 | İ | İ | x | x | i i |
| ARECA NUT | 00000-00-0 | x | i | | | i i |
| ARISTOLOCHIC ACIDS | 00000-00-0 | x | i | İ | ĺ | i i |
| ARSENIC ACID AND SALTS | 00000-00-0 | İ | İ | x | x | i i |
| ARSENIUOS ACID AND SALTS | 00000-00-0 | İ | İ | x | İ | i i |
| ARSONIC ACID AND SALTS | 00000-00-0 | İ | İ | x | İ | i i |
| BARBITURATES | 00000-00-0 | ĺ | x | | | ÍÍ |
| BOTULINUM TOXINS | 00000-00-0 | ĺ | ĺ | x | | ÍÍ |
| BRACKEN FERN | 00000-00-0 | x | ĺ | ĺ | | ÍÍ |
| CERAMIC FIBERS (RESPIRABLE SIZE) | 00000-00-0 | x | | ĺ | | ÍÍ |
| CHLOROPHENOXY HERBICIDES | 00000-00-0 | x | | | x | |
| CYANIDE AND COMPOUNDS | 00000-00-0 | | | x | x | |
| CYANOGEN AND COMPOUNDS | 00000-00-0 | | | x | | |
| DIESEL EXHAUST | 00000-00-0 | x | | | | |
| DIESEL FUEL MARINE | 00000-00-0 | x | | | | |
| E-GLASS | 00000-00-0 | x | | | | |
| ETHYLENE GLYCOL ETHERS | 00000-00-0 | | x | | | |
| GASOLINE, ENGINE EXHAUST FUMES | 00000-00-0 | x | | | | |
| GLASS FIBERS, SPECIALTY (E-GLASS, '475') | 00000-00-0 | x | | | | |
| GLASSWOOL (RESPIRABLE SIZE) | 00000-00-0 | x | | | | |
| HEPATITIS B VIRUS | 00000-00-0 | x | | | | |
| HEPATITIS C VIRUS | 00000-00-0 | x | | | | |
| HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 | 00000-00-0 | x | | | | |
| HUMAN PAPILLOMAS VIRUSES: SOME GENITAL-MUCOSAL | 00000-00-0 | x | | | | |
| METHYL MERCURY AND COMPOUNDS | 00000-00-0 | | | x | x | |
| MINERAL OILS, UNTREATED AND MILDLY TREATED | 00000-00-0 | x | | | x | |
| NICKEL COMPOUNDS | 00000-00-0 | x | | | | |
| POLYCHLOROPHENOLS | 00000-00-0 | x | | | | |
| POLYCYCLIC AROMATIC HYDROCARBONS | 00000-00-0 | x | | | | |
| REFRACTORY CERAMIC FIBER | 00000-00-0 | x | | | | |
| ROCKWOOL | 00000-00-0 | x | | | | |
| SILICA, CRYSTALLINE (RESPIRABLE) | 00000-00-0 | x | | | | |
| SOOTS, TARS, MINERAL OILS | 00000-00-0 | x | | | | |
| TALC CONTAINING ASBESTIFORM FIBRES | 000000-00-0 | x | ļ | | | |
| TOBACCO PRODUCTS, SMOKELESS | 000000-00-0 | X | | | | |
| TOBACCO SMOKE | 000000-00-0 | X | X | | | |
| VENOM, SNAKE, CROTALUS ADAMANTEUS | 000000-00-0 | | | x | | |
| VENOM, SNAKE, CROTALUS ATROX | 000000-00-0 | | | x | | |
| WELDING FUMES | 000000-00-0 | X | | | | |
| FORMALDEHYDE | 000050-00-0 | X | X | | x | |
| PHENOBARBITAL | 000050-06-6 | X | X | | | |
| MITUMYCIN C | 000050-07-7 | | | X | | |
| | 000050-29-3 | | | | X | |
| RENZO [a] FIRENE | 000050-32-8 | X | | | | |
| THALIDUMIDE CLOMIDUME CIMDAME | UUUU5U-35-1 | | | | X | |
| CLOMIPHENE CITRATE | 000050-41-9 | | X | | | |

- Key: SC -- Select Carcinogens RT -- Reproductive Toxins AT -- Acute Toxins SA -- Readily Absorbed Through the Skin DHS -- Chemicals of Interest

| | | | | · | | |
|--|-------------|----------|----------|----------|----------|------------|
| CHEMICAL NAME | CAS # | SC | RT | AT | SA | DHS |
| | | _ | _ | _ | _ | |
| RESERVINE | 000050-55-5 | | | | | |
| ACTINOMYCIN D | 000050-76-0 | | X | | X | |
| ASPIRIN | 000050-78-2 | | X | | | |
| FLUOROURACIL | 000051-21-8 | | X | | | ! ! |
| DINITROPHENOL, 2,4- | 000051-28-5 | | | x | x | |
| PROPYLTHIOURACIL | 000051-52-5 | X | X | | | |
| HN2 (NITROGEN MUSTARD-2) | 000051-75-2 | | | x | x | x |
| NITROGEN MUSTARD | 000051-75-2 | x | x | x | x | |
| URETHANE | 000051-79-6 | x | x | | | |
| THIOTEPA | 000052-24-4 | x | x | x | | |
| HALOPERIDOL | 000052-86-8 | | x | | | |
| DIBENZ[a,h]ANTHRACENE | 000053-70-3 | x | x | | | |
| ACETYLAMINOFLUORENE, 2- | 000053-96-3 | x | | | | |
| NICOTINE | 000054-11-5 | | x | x | x | |
| AMINOPTERIN | 000054-62-6 | | x | | | |
| PIPOBROMAN | 000054-91-1 | | x | | | |
| NITROSODIETHYLAMINE, N- | 000055-18-5 | x | x | | | |
| NITROGEN MUSTARD HYDROCHLORIDE | 000055-86-7 | x | x | x | x | x |
| BUTANEDIOL DIMETHYLSULPHONATE, 1,4- (BUSULFAN) | 000055-98-1 | x | x | ĺ | ĺ | ÍÍ |
| METHYLTHIOURACIL | 000056-04-2 | x | x | İ | İ | i i |
| CARBON TETRACHLORIDE | 000056-23-5 | x | İ | İ | x | i i |
| PARATHION | 000056-38-2 | İ | x | x | x | i i |
| DIETHYLSTILBOESTROL | 000056-53-1 | x | x | İ | x | i i |
| BENZ[a]ANTHRACENE | 000056-55-3 | x | İ | İ | x | i i |
| CHLORAMPHENICOL | 000056-75-7 | x | x | İ | ĺ | i i |
| CYANIDE | 000057-12-5 | İ | İ | x | x | i i |
| DIMETHYLHYDRAZINE, 1,1- | 000057-14-7 | x | x | İ | x | i i |
| STRYCHNINE | 000057-24-9 | İ | İ | x | | i i |
| DIPHENYLHYDANTOIN | 000057-41-0 | x | İ | İ | | i i |
| PHENYTOIN | 000057-41-0 | x | x | | | i i |
| PROPIOLACTONE, BETA | 000057-57-8 | x | x | | | i i |
| CHLORDANE | 000057-74-9 | x | x | İ | x | i i |
| PROGESTERONE | 000057-83-0 | x | x | | | i i |
| METHYLTESTOSTERONE | 000058-18-4 | İ | x | | | i i |
| TESTOSTERONE CYPIONATE | 000058-20-8 | | x | | | i i |
| CHLORDIAZEPOXIDE | 000058-25-3 | | x | | | i i |
| HEXACHLOROBENZENE, GAMMA | 000058-89-9 | x | x | | x | · · |
| METHYLAMINOPTERIN | 000059-05-2 | | x | | | · · |
| BROMODEOXYURIDINE | 000059-14-3 | | x | | | · · |
| NTTROSOMORPHOLINE N- | 000059-89-2 | x | l x | | | · · |
| LEVODOPA | 000059-92-7 | 11 | | | | · · |
| AMINOAZOBENZENE para- | 000060-09-3 | | 11 | | | |
| DIMETHYLAMINOAZOBENZENE 4- | 000060-11-7 | | ~ | | | |
| METHYL HYDRAZINE | 000060-34-4 | 11 | | l I v | l V | |
| | 000060-35-5 | | 11 | 21 | 11 | |
| TETRACYCLINES | 000060-54-8 | | v | | | 1 I 1 I |
| METHINA ZOLE | 000000 54-0 | | | | | 1 I 1 I |
| NIRIDAZOLE | 000061_57-4 | ~ | | | | 1 I 1 I |
| AMTTROLF | 000001-07-4 | ^ ~ | ^ | | | |
| | 000001-02-5 | | | | | |
| | 000002-44-2 | <u>~</u> | 1 | 1 | 1 | I |

| CHEMICAL NAME | CAS # | sc | RT | AT | SA | DHS | |
|--|-------------|----------|----------|----------|----------|-----------|--|
| | · | | | | | | |
| ETHYL METHANESULPHONATE | 000062-50-0 | x | x | | | | |
| ANILINE | 000062-53-3 | | | x | x | | |
| THIOACETAMIDE | 000062-55-5 | x | x | | | | |
| THIOUREA | 000062-56-6 | x | x | | | | |
| DICHLORVOS | 000062-73-7 | x | x | x | x | | |
| SODIUM FLUOROACETATE | 000062-74-8 | | | x | x | | |
| NITROSODIMETHYLAMINE, N- | 000062-75-9 | x | x | | | | |
| PHENOXYBENZAMINE HYDROCHLORIDE | 000062-92-3 | x | x | | | | |
| NAPHTHYL METHYLCARBAMATE | 000063-25-2 | | x | | | | |
| DIETHYL SULPHATE | 000064-67-5 | x | | | x | | |
| DEMECLOCYCLINE HYDROCHLORIDE (INTERNAL USE) | 000064-73-3 | | x | | | | |
| COLCHICINE | 000064-86-8 | | x | x | | | |
| METHYL METHANESULPHONATE | 000066-27-3 | x | x | ĺ | ĺ | i i | |
| URACIL MUSTARD | 000066-75-1 | x | | | | | |
| DICUMAROL | 000066-76-2 | ĺ | x | ĺ | ĺ | i i | |
| CYCLOHEXIMIDE | 000066-81-9 | İ | x | İ | İ | i i | |
| CHLOROFORM | 000067-66-3 | x | x | i | i | i i | |
| HEXACHLOROETHANE | 000067-72-1 | x | İ | İ | i | i i | |
| DIMETHYLFORMAMIDE | 000068-12-2 | İ | x | İ | x | i i | |
| NORETHISTERONE | 000068-22-4 | x | x | i | i | i i | |
| METHYL-N-NITRO-N'-NITROSOGUANIDINE,N- (MNNG) | 000070-25-7 | x | x | i | i | i i | |
| BENZENE | 000071-43-2 | x | x | i | x | i i | |
| COBALT ACETATE | 000071-48-7 | x | i | i | i | i i | |
| MEDROXYPROGESTERONE ACETATE | 000071-58-9 | x | x | ĺ | | i i | |
| DIGITOXIN | 000071-63-6 | ĺ | x | x | x | x | |
| ENDRIN | 000072-20-8 | İ | İ | x | x | i i | |
| MESTRANOL | 000072-33-3 | ĺ | x | ĺ | | i i | |
| TRYPAN BLUE | 000072-57-1 | x | ĺ | ĺ | | i i | |
| METHYL BROMIDE | 000074-83-9 | ĺ | x | x | x | i i | |
| METHYL CHLORIDE | 000074-87-3 | ĺ | x | | | i i | |
| HYDROGEN CYANIDE | 000074-90-8 | ĺ | ĺ | x | x | x | |
| VINYL CHLORIDE | 000075-01-4 | x | x | | | | |
| VINYL FLUORIDE | 000075-02-5 | x | | | | | |
| DIMETHYLARSENIC ACID | 000075060-5 | x | x | 1 | | i i | |
| ACETALDEHYDE | 000075-07-0 | x | | | | | |
| DTCHLOROMETHANE | 000075-09-2 | x | x | | | | |
| CARBON DISULFIDE | 000075-15-0 | | x | 1 | x | | |
| ETHYLENE OXIDE | 000075-21-8 | x | x | 1 | | | |
| BROMOPROPANE, 2- | 000075-26-3 | | x | 1 | 1 | | |
| BROMODICHLOROMETHANE | 000075-27-4 | x | x | 1 | 1 | | |
| PHOSGENE | 000075-44-5 | | | x | | | |
| NTTROMETHANE | 000075-52-5 | x | | | | | |
| METHYLDICHLOROSILANE | 000075-54-7 | | | 1 | 1 | x | |
| METHYLAZIRIDINE 2 - (PROPYLENEIMINE) | 000075-55-8 | x | x | x | x | | |
| PROPYLENE OXIDE | 000075-56-9 | | | l x | l v | i i | |
| ACETONE CYANOHYDRIN, STABILIZED | 000075-86-5 | | | | ^ | v | |
| CHLOROPICRIN | 000076-06-2 | | | *` | 1 | | |
| FLUOXYMESTERONE | 000076-43-7 | | v | ^ | 1 | | |
| HEDTACHLOR | 000076-44-8 | • | | l V | • | | |
| TRIPHENYLTIN HYDROXIDE | 000076-87-9 | | | ^ | <u>^</u> | | |
| | | 1 | 1 | 1 | 1 | 1 1 | |

| OURNE ONE NAME | | | דית | | | |
|---|-------------|---|-----------|--------|----|-----|
| | CAS # | | | AI | SA | |
| PHENOTHALEIN | 000077-09-8 | x | İ | İ | İ | i i |
| DIMETHYL SULFATE | 000077-78-1 | x | x | x | x | |
| TABUN | 000077-81-6 | | | x | x | x |
| TETRAETHYL LEAD | 000078-00-2 | x | x | x | x | İİ |
| DIETHYL S-[2-(DIETHYLAMINO)ETHYL] PHOSPHOROTHIOLATE, 0,0- | 000078-53-5 | | | x | | x |
| ISOPRENE | 000078-79-5 | x | | | | |
| TRICHLOROETHYLENE | 000079-01-6 | x | x | | | |
| CHLOROACETYL CHLORIDE | 000079-04-9 | | | | | x |
| ACRYLAMIDE | 000079-06-1 | x | x | | x | |
| DIBROMOACETIC ACID | 000079-43-6 | x | | | x | İİ |
| DICHLOROACETIC ACID | 000079-43-6 | x | | ĺ | x | İİ |
| DIMETHYLCARBAMOYL CHLORIDE | 000079-44-7 | x | x | İ | İ | i i |
| NITROPROPANE, 2- | 000079-46-9 | x | İ | İ | İ | i i |
| OXYTETRACYCLINE AND COMPOUNDS (INTERNAL USE) | 000079-57-2 | İ | x | İ | ĺ | i i |
| SACCHARIN | 000081-07-2 | x | İ | İ | İ | i i |
| AMINO-2,4-DIBROMOANTHRAQUINONE | 000081-49-2 | x | İ | İ | İ | i i |
| WARAFIN | 000081-81-2 | İ | x | İ | x | i i |
| AMINO-2-METHYLANTHRAQUINONE, 1- | 000082-28-0 | x | İ | İ | | i i |
| DI-N-BUTYL PHTHALATE | 000084-74-2 | İ | x | İ | | i i |
| DI-N-HEXYL PHTHALATE | 000084-75-3 | İ | x | İ | İ | i i |
| PENTACHLOROPHENOL | 000087-86-5 | İ | İ | x | x | i i |
| TRICHLOROPHENOL, 2,4,6- | 000088-06-2 | x | İ | İ | x | i i |
| NITROTOLUENE, 2- | 000088-72-2 | x | x | İ | İ | i i |
| DINOSEB | 000088-85-7 | İ | x | İ | x | i i |
| ANISIDINE, ORTHO- | 000090-04-0 | x | ĺ | İ | x | i i |
| MICHLER'S KETONE | 000090-94-8 | x | | | | |
| TOLUENE DIISOCYANATE, 2,6- | 000091-08-7 | x | | | | |
| NAPHTHALENE | 000091-20-3 | x | | | | |
| NITROANISOLE, 2- | 000091-23-6 | x | | | | İİ |
| NAPHTHYLAMINE, 2- | 000091-59-8 | x | x | | x | İİ |
| DICHLOROBENZIDINE, 3, 3 ' - | 000091-94-1 | x | | | x | İİ |
| AMINODIPHENYL,4- | 000092-67-1 | x | x | | x | ÍÍ |
| BENZIDINE AND BENZIDINE BASED DYES | 000092-87-5 | x | | | x | İİ |
| NITROBIPHENYL,4- | 000092-93-3 | x | | | | |
| METHYLEUGENOL | 000093-15-2 | x | | | | |
| 2,4,5-T | 000093-76-5 | | x | | x | |
| DIHYDROSAFROLE | 000094-58-6 | x | | | | |
| SAFROLE | 000094-59-7 | x | x | ĺ | ĺ | İİ |
| SULFALLATE | 000095-06-7 | x | | | x | |
| TOLUIDINE, ORTHO- | 000095-53-4 | x | | x | x | |
| CHLORO-O-TOLUIDINE, 4- | 000095-69-2 | x | x | | | ÍÍ |
| DIAMINOTOLUENE, 2,4- | 000095-80-7 | x | x | | | İİ |
| CHLORO-O-PHENYLENEDIAMINE, 4- | 000095-83-0 | x | x | | | |
| STYRENE-7,8-OXIDE | 000096-09-3 | x | x | | x | |
| DIBROMO-3-CHLOROPROPANE, 1, 2- | 000096-12-8 | x | x | | x | |
| DIBROMO-1-PROPANOL,2,3- | 000096-13-9 | x | | | | I İ |
| TRICHLOROPROPANE, 1,2,3- | 000096-18-4 | x | | | x | |
| DICHLORO-2-PROPANOL, 1,3- | 000096-23-1 | x | | | x | |
| MONOCHLORO-1, 2-PROPANDIOL, 3- | 000096-24-2 | x | x | | x | |
| ETHYLENE THIOUREA | 000096-45-7 | x | | | | l İ |

| CHEMICAL NAME | CAS # | sc | RT | AT | SA | DHS |
|--|-----------------|----------|----------|----------|-------|-----------|
| | | | | | _ | |
| SOMAN | 000096-64-0 | | | x | x | x |
| ARSONIC ACID | 000097-44-9 | x | x | x | | |
| AMINOAZOTOLUENE, ortho- | 000097-56-3 | x | x | | | |
| TETRAETHYLTHIURAM DISULFIDE | 000097-77-8 | | x | | x | |
| BENZOYLTRICHLORIDE(COMBINED EXPOSURE W/ BENZOYL CHLORIDE) | 000098-07-7 | x | | | x | |
| METHYLSTYRENE, ALPHA | 000098-83-9 | x | | | | |
| BENZOYL CHLORIDE (COMBINED EXPOSURE WITH CHLOROTOLUENES) | 000098-88-4 | x | | | x | |
| NITROBENZENE | 000098-95-3 | x | İ | İ | x | i i |
| VALPROIC ACID | 000099-66-1 | İ | x | İ | | i i |
| ETHANEDIOL, N,N- (2-DIETHYLAMINO) | 000100-38-9 | İ | İ | İ | | x |
| VINYLCYCLOHEXENE, 4- | 000100-40-3 | x | İ | ĺ | | i i |
| STYRENE | 000100-42-5 | x | x | | x | i i |
| BENZYL CHLORIDE(COMBINED EXPOSURE W/ BENZOYL CHLORIDE) | 000100-44-7 | x | x | | x | |
| NTTROSOPIPERIDINE. N- | 000100-75-4 | x | x | | | |
| METHYLENE BIS(2-CHLOROANTLINE), 4.4- (MOCA) | 000101 - 14 - 4 | l x | | | v | |
| METHULENEBIS(N N-DIMETHUL) RENZENAMINE 4 4' | 000101-61-1 | | | | | |
| METHILIANEDIS(N,N DIMETHIL)DENZEMANINE, 1,1 METHVI.FNEDIANTI.INE 4 4' | 000101 01 1 | | | | | |
| DIAMINODIDIENI, FTIER | 000101 77 9 | | | | | |
| DIGUNGINI DECODOTNOL ETHER | 000101 00 4 | | | | | |
| DIGLICIDIL RESORCINOL EINER | 000101-90-0 | | | | | |
| DICHLOROBENZENE, Pala- | 000106 - 46 - 7 | | | | | |
| CHLOROANILINE, PARA | 000106-47-6 | | | | | |
| VINYL-I-CYCLOHEXENE DIEPOXIDE, 4- | 000106-87-6 | | | | X | |
| EPOXYBUTANE, 1,2- | 000106-88-7 | X | | | | |
| | 000106-89-8 | X | | | X | |
| ETHYLENE DIBROMIDE | 000106-93-4 | X | | | x | |
| BROMOPROPANE, 1- | 000106-94-5 | | X | | | |
| PROPARGYL BROMIDE | 000106-96-7 | | | x | | |
| BUTADIENE, 1, 3- | 000106-99-0 | x | | | | |
| ACROLEIN | 000107-02-8 | | x | x | x | |
| DICHLOROETHANE, 1,2- | 000107-06-2 | x | x | | x | |
| ETHYLENE CHLOROHYDRIN | 000107-07-3 | | | x | x | |
| PROPIONIC NITRILE | 000107-12-0 | | | x | x | |
| ACRYLONITRILE | 000107-13-1 | x | x | x | х | |
| CHLOROMETHYL ETHER, BIS- (TECHNICAL GRADE) | 000107-30-2 | x | x | | x | |
| SARIN | 000107-44-8 | | | x | x | x |
| TETRAETHYL PYROPHOSPHATE | 000107-49-3 | | | x | x | |
| ETHANETHIOL, N,N- (2-DIMETHYLAMINO) | 000108-02-1 | | | ĺ | | x |
| VINYL ACETATE | 000108-05-4 | x | x | İ | | i i |
| METHYL ISOBUTYL KETONE | 000108-10-1 | x | İ | İ | | i i |
| TOLUENE | 000108-88-3 | İ | x | İ | x | i i |
| THIOPHENOL | 000108-98-5 | İ | İ | x | x | i i |
| FURAN | 000110-00-9 | x | İ | ĺ | x | i i |
| DIETHANOLAMINE | 000111-42-2 | x | i | ĺ | x | i i |
| THIODIGLYCOL | 000111-48-8 | | ĺ | | | x |
| ADTPONTTRTIE | 000111-69-3 | | | x | | |
| AZASERINE | 000115-02-6 | x | | | | |
| CHLORENDIC ACID | 000115-28-6 | x | | | | |
| ENDOSULIEAN | 000115-29-7 | | v | l v | l v l | |
| DARAMETHADIONE | 000115-67-3 | | | | | |
| TETRAFLUORETHYLENE | 000116-14-3 | | | | | |
| | 000110 II J | 1 1 | 1 | I | I | I I |

| | | | <u> </u> | | | : |
|--|-----------------|-----|----------|----|------------|-----|
| CHEMICAL NAME | CAS # | SC | RT | AT | SA | DHS |
| | | | _ | _ | | |
| ANTRAQUINONE, I, O-DINIDROAT | 000117 - 10 - 2 | | | | | i I |
| | 000117 - 37 - 3 | | | | | i l |
| AMINOANTHRAQUINONE, 2- | 000117 - 79 - 3 | | | | | í l |
| DI (2-ETHYLHEXYL) PHTHALATE | 000117-81-7 | X | | | | í ! |
| DIOCTYL PHTHALATE | 00011/-81-/ | | | | | (l |
| HEXACHLOROBENZENE | 000118-74-1 | x | X | | x | !! |
| BENZOPHENONE | 000119-61-9 | x | | | | (l |
| DIMETHOXYBENZIDINE, 3,3'- (O-DIANISIDINE) | 000119-90-4 | x | | | | (l |
| DIMETHYLBENZIDINE, 3,3'- (o-TOLIDINE) | 000119-93-7 | x | | | х | 1 |
| CRESIDINE, para- | 000120-71-8 | x | | | | í I |
| CATECHOL | 000120-80-9 | х | | | х | í I |
| DINITROTOLUENE, 2,4- | 000121-14-2 | x | x | | х | í I |
| PHENYL GLYCIDYL ETHER | 000122-60-1 | х | | | х | 1 |
| HYDRAZOBENZENE | 000122-66-7 | x | | | | |
| DIOXANE, 1,4- | 000123-91-1 | x | | | x | |
| METHYLARSONIC ACID | 000124-58-3 | x | x | | | i i |
| AMINOGLUTETHIMIDE | 000125-84-8 | ĺ | x | İ | x | i i |
| GRISEOFULVIN | 000126-07-8 | x | x | | i i | i i |
| TRIS (2,3-DIBROMOPROPYLPHOSPHATE) | 000126-72-7 | x | x | | x | i i |
| NITROGEN MUSTARD N-OXIDE | 000126-85-2 | x | x | x | x | i i |
| CHLOROPRENE | 000126-99-8 | x | x | | x | i i |
| HYDROXYUREA | 000127-07-1 | | x | | i i | i i |
| TETRACHLOROETHYLENE | 000127-18-4 | x | x | | x | i i |
| DIMETHYLACETAMIDE, N.N- | 000127-19-5 | | x | | x | i i |
| TRIMETHADIONE | 000127-48-0 | | x | | | í l |
| SACCHARIN, SODIUM SALT | 000128-44-9 | l x | | | | i i |
| METHYI1 - NTTROANTHRACIITNONE 2 - (INCERTAIN PURTTY) | 000120 11 9 | v | | | | i l |
| SODIUM ortho-DHENVI.DHENATE | 000120 10 / | | | | | í ¦ |
| ANISIDINE HYDROCHLORIDE | 000132 27 1 | | | | | |
| NADHTHYLAMINE ALDHA- | 000131 20 2 | v | | | | |
| | 000135-20-6 | | | | | |
| | 000135 20 0 | | | | | |
| DIAMINODENZENE | 000136-35-0 | | | | - 72 | |
| | 000136 - 35 - 0 | | | | | i I |
| NIMPILOWDING HIDROCHLORIDE | 000130 - 40 - 3 | | | | | i l |
| MIRILOIRIACETIC ACID AND SALIS | 000139-13-9 | | | | | i l |
| THIODIANILINE, 4,4'- | 000139-65-1 | X | | | | i l |
| ARAMITE | 000140-57-8 | x | | | | (|
| ETHYL ACRYLATE | 000140-88-5 | x | | | x | ! ! |
| THIOURACIL | 000141-90-2 | x | X | | | !! |
| KEPONE (CHLORDECONE) | 000143-50-0 | x | X | | x | į į |
| VINBLASTINE SULFATE | 000143-67-9 | | x | | | (|
| CYTARABINE | 000147-94-4 | | x | | | (|
| MELPHALAN | 000148-82-3 | x | x | | | |
| ETHYLHEXANOIC ACID | 000149-57-5 | | x | | х | í I |
| AZIRIDINE | 000151-56-4 | х | x | | х | í I |
| HALOTHANE | 000151-67-7 | | x | | | í I |
| THIOGUANINE | 000154-42-7 | | x | | j l | (I |
| BISCHLOROETHYL NITROSOUREA (BCNU) | 000154-93-8 | x | x | x | j l | (I |
| DIBENZO[a,i]PYRENE | 000189-55-9 | x | | | j l | (I |
| DIBENZO[a,h]PYRENE | 000189-64-0 | x | | | į I | í Í |

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| DIBENZO[a,]]PYRENE | 000191-30-0 | — x | _ | _ | - | |
| DIBENZO[a,e]PYRENE | 000192-65-4 | x | | | | |
| $\frac{1}{2} = \frac{1}$ | 000193-39-5 | x | | | | |
| DIBENZO[c, q]CARBAZOLE, 7H- | 000194-59-2 | | | | | |
| BENZ[c]PHENANTHRENE | 000195-19-7 | | | | | |
| BENZ | 000202-33-5 | | | | | |
| BENZO | 000205-82-3 | | | | | |
| BENZO[b]FLUORANTHENE | 000205 02 5 | | | | | |
| BENZO[k]FLUORANTHENE | 000203 99 2 | | | | | |
| CHDAGENE | 000207 00 9 | | | | | |
| | 000210-01-9 | | | | | |
| | | | | | | |
| | 000224-53-3 | | | | | |
| | 000226-36-8 | | | | | |
| BENZOFURAN | 0002/1-89-6 | | | | | |
| CARBAMAZEPINE | 000298-46-4 | | x | | | |
| DIMETHANESULFONATE, 1,4- | 000299-75-2 | | x | | | |
| TREOSULPHAN | 000299-75-2 | x | х | | | |
| LEAD ACETATE | 000301-04-2 | x | х | | | |
| HYDRAZINE | 000302-01-2 | x | х | | x | |
| NITROGEN MUSTARD N-OXIDE HYDROCHLORIDE | 000302-70-5 | x | х | х | x | |
| ALL-TRANS RETINOIC ACID | 000302-79-4 | | x | | x | |
| LASIOCARPINE | 000303-34-4 | x | x | | | |
| GOSSYPOL | 000303-45-7 | | x | | | |
| OCHRATOXIN A | 000303-47-9 | x | | х | | Í |
| CHLORAMBUCIL | 000305-03-3 | x | x | | i | i |
| MONOCROTALINE | 000315-22-0 | x | x | | i | i |
| TESTOSTERONE ENANTHATE | 000315-37-7 | i i | x | | | i |
| LINDANE, ALPHA | 000319-84-6 | x | | | i | |
| LINDANE, BETA | 000319-85-7 | x | | | | i |
| AZACYTIDINE | 000320-67-2 | x | | | | |
| LINURON | 000330-55-2 | i i | x | | | ĺ |
| CAFFEIC ACID | 000331-39-5 | x | | | | |
| DIAZOMETHANE | 000334-88-3 | | | x | | |
| PROCARBAZINE HYDROCHLORIDE | 000366-70-1 | v | x | | | |
| NICKEL (II) ACETATE (1:2) | 000373-02-4 | | | | | |
| FROMANTINE TARTRATE | 000379-79-3 | | v | | | |
| CYANAMIDE | 000420-04-2 | | 22 | v | v | |
| METHVI.FLUODOSIII.FONATE | 000420 04 2 | | | | ~ | |
| | 000421 20 3 000424 - 07 - 1 | | ~~ | | | |
| CULODIAZEDONIDE UNDOCULODIDE | 000434-07-1 | | ~ | | | |
| | 000438-41-5 | | x | | | |
| CONESTORAL | 000438-67-5 | | | | | |
| | 000439-14-5 | | х | | x | |
| METRONIDAZOLE | 000443-48-1 | | x | | | |
| AZATHIOPRINE | 000446-86-6 | | x | | | |
| CYANOGEN | 000460-19-5 | | | x | | |
| METHOXYPSORALEN, 5- | 000484-20-8 | x | | | | |
| AURAMINE | 000492-80-8 | | x | | | |
| NAPHTHYLAMINE, N, N-BIS(2CHLOROETHYL)-2- | 000494-03-1 | x | | | | |
| MUSTARD GAS (SULPHUR MUSTARD) | 000505-60-2 | x | x | x | x | |
| SULFUR MUSTARD (MUSTARD GAS (H)) | 000505-60-2 | | | х | x | x |

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| QUANOGEN GILLOPIDE | | _ | _ | | - | |
| CIANOGEN CHLORIDE | 000506 - 77 - 4 | | | | x | |
| | 000509 - 14 - 8 | | | | | |
| ILIRANIIROMEIHANE | 000509 - 14 - 6 | | | | | |
| CHLORU-Z-MEIHILPROPENE, I- | 000513 - 37 - 1 | | | | | |
| CADMIUM CARBONATE | 000513-78-0 | X | X | | | |
| COBALT CARBONATE | 000513-79-1 | X | | | | |
| MERPHALAN | 000531-76-0 | X | | | | |
| N = [4 - (5 - NTTR - 2 - FURYL) - 2 - THIAZOYL]ACETAMIDE | 000531-82-8 | X | | | | |
| ETHIONAMIDE | 000536-33-4 | | X | | | |
| HN1 (NITROGEN MUSTARD-1) | 000538-07-8 | | | x | х | x |
| DIMETHYLHYDRAZINE, 1,2- | 000540-73-8 | | x | | х | |
| LEWISITE 1 | 000541-25-3 | | | x | х | x |
| DICHLOROPROPENE, 1,3- (TECHNICAL-GRADE) | 000542-75-6 | x | | | х | |
| CHLOROMETHYL ETHER, BIS- | 000542-88-1 | x | x | | х | |
| ACETOHYDROXAMIC ACID | 000546-88-3 | | x | | х | |
| HN3 (NITROGEN MUSTARD-3) | 000555-77-1 | | | x | x | x |
| NITROFURFURYLIDIENE(5)-AMINO-2-IMIDAZOLIDINONE, 1- | 000555-84-0 | x | İ | İ | | i i |
| GLYCIDOL | 000556-52-5 | x | x | İ | x | i i |
| CHLORO-2-METHYLPROPENE, 3- | 000563-47-3 | x | x | İ | | i i |
| DIEPOXYBUTANE, 3,4-,MESO 1,2 | 000564-00-1 | x | i | İ | x | i i |
| DOXYCYCLINE AND COMPOUNDS (INTERNAL USE) | 000564-25-0 | ĺ | x | | | i i |
| C.I. BASIC RED 9 MONOHYDROCHLORIDE | 000569-61-9 | x | İ | | | i i |
| TOLUENE DIISOCYANATE. 2.4- | 000584-84-9 | x | i | | | |
| METHYLAZOXYMETHANOL | 000590-96-5 | x | | | | |
| METHYLAZOXYMETHANOL ACETATE | 000592-62-1 | x | x | | | |
| VINVI. BROMIDE | 000592 02 1 | | 21 | | | |
| DIMETHYI, MEDCUDY | 000593 00 2 | | • | • | v | |
| | 000593-89-5 | ~~ | | | | |
| MECHIOKOAKSINE MECECEDAL ACETATE | 000595-33-5 | | | | | |
| | 000595-35-5 | | | | | |
| | 000598-31-2 | | | | | |
| NIROACENAPHIHENE, 5- | 000602-87-9 | | | | | |
| | 000604-75-1 | | | | | |
| DINITROTOLUENE, 2,6- | 000606-20-2 | | X | | x | |
| NTTROFLUORENE, Z- | 000607-57-8 | X | X | | | |
| HEXACHLOROHEXANES (ALL ISOMERS) | 000608-73-1 | X | | | х | |
| DICHLOROBENZIDINE, DIHYDROCHLORIDE, 3,3' - | 000612-83-9 | x | | | х | |
| DIACETYLBENZIDINE, N, N'- | 000613-35-4 | x | | | | |
| DIAMINOANISOLE, 2,4- (AND ITS SALTS) | 000615-05-4 | x | x | | | |
| NITROSOURETHANE-N-METHYL,N- | 000615-53-2 | x | | | | |
| NITROSODI-n-PROPYLAMINE, N- | 000621-64-7 | x | x | | | |
| METHYL ISOCYANATE | 000624-83-9 | | | x | х | |
| CARBON MONOXIDE | 000630-08-0 | | x | | | |
| MAGENTA (CONTAINING CI BASIC RED 9) | 000632-99-5 | x | | | | |
| TOLUIDINE HYDROCHLORIDE, O- | 000636-21-5 | x | | | | |
| AMANTADINE HYDROCHLORIDE | 000665-66-7 | | x | | х | |
| METHYLPHOSPHONOTHIOIC DICHLORIDE | 000676-98-2 | | | | | x |
| METHYL DIFLUOROPHOSPHITE (DF) | 000676-99-3 | | | x | x | x |
| ISOPROPYLPHOSPHONYL DIFLUORIDE | 000677-42-9 | İ | i | x | x | x |
| DIMETHYL PHOSPHORAMIDIC DICHLORIDE, N,N- | 000677-43-0 | İ | i | İ | | x |
| HEXAMETHYLPHOSPHORAMIDE | 000680-31-9 | x | x | İ | x | i i |
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| DRODVLDHOSDHONVL DIFLUORIDE | 000690-14-2 | ~ | | | | |
| METHVIIMIDAZOLE 2- | 000000 14 2 | v | | | ~ | |
| $MEIHIDIMIDAZODE, Z^{-}$ $MEIHIDIMIDAZODE, Z^{-}$ $MEIHIDIMIDAZODE, Z^{-}$ $MEIHIDIMIDAZODE, Z^{-}$ | 000093-98-1 | | | | | |
| FTUVI, DUOSDHONVI, DIFLIOPIDE | 000712 00 0 | ~ | | | | |
| FTHVL_N_NITPOSOUDEN N_ | 000759-73-9 | | v | | ~ | |
| CLYCIDALDEHYDE | 000755-34-4 | | | | | |
| | 000705 54 4 | | | | ~ | |
| TRICHLOROMETHINE | 000794 93 4 | | | | | |
| METUVI IMIDAZONE 1- | 000822-36-6 | | | | | |
| METHIDAZONE, $+$ | 000828-88-0 | | | | ~ | |
| IODATEDAM | 000836-88-0 | ~ | ~~ | | | |
| | 000840-49-1 | ~~ | ~ | | | |
| NITTOCCODI-D-DUTVIAMINE N_ | 000917-09-1 | | ~~ | | | |
| NIROSODI-II-BUIILAMINE, N- | 000924 - 10 - 3 | | | | | |
| ETUVI DUOCDUONOTUTOTO, DICULODIDE | 000930-55-2 | A | x | | | 17 |
| | 000993-43-1 | 37 | 37 | | 37 | |
| | 001024-37-3 | | x | | ~ | |
| CHROMIUM IRIACEIAIE | 001000-30-4 | | | | | |
| NIROSODIEIHANOLAMINE, N- | 001120 71 4 | | | | | |
| PROPANE SULIUNE, 1,3- | 001120 - 71 - 4 | x | x | | x | |
| AFLAIOXIN BI | 00102-05-8 | x | | | | |
| EIHIDIOM BROMIDE | 001239-45-8 | | x | | | |
| NICKEL BISCYCLOPENDADIENE | 001271-28-9 | x | | | | |
| XYLIDINE | 001300-73-8 | x | | x | x | |
| ZINC CHROMATE (VI)HYDROXIDE | 001300 - 73 - 8 | x | x | | | |
| BERYLLIUM ALUMINUM SILICATE | 001302-52-9 | x | | | | |
| GALLIUM ARSENIDE | 001303-00-0 | x | | | | |
| ARSENIC PENTOXIDE | 001303-28-2 | х | x | x | | |
| BERYLLIUM OXIDE | 001304-56-9 | x | | | | |
| CALCIUM PHOSPHIDE | 001305-99-3 | | | x | | x |
| CADMIUM OXIDE | 001306-19-0 | х | x | | | |
| CADMIUM SULFIDE | 001306-23-6 | х | x | | | |
| COBALT HYDROXIDE | 001307-86-4 | х | | | | |
| COBALT(2+) OXIDE | 001307-96-6 | х | | | | |
| COBALT (III) OXIDE | 001308-04-9 | х | | | | |
| COBALT OXIDE | 001308-06-1 | х | | | | |
| CHROMIUM (III) OXIDE (2:3) | 001308-38-9 | х | | | | |
| NICKEL (II) OXIDE (1:1) | 001313-99-1 | х | | | | |
| THORIUM DIOXIDE | 001314-20-1 | х | | | | |
| VANADIUM PENTOXIDE | 001314-62-1 | | | x | | |
| COBALT (2+) SULFIDE | 001317-42-6 | х | | | | |
| SILICA, CRYSTALLINE TRIPOLI | 001317-95-9 | х | | | | |
| ARSENIC TRIOXIDE | 001327-53-3 | х | х | x | x | |
| FOWLER'S SOLUTION | 001332-10-1 | х | х | | | |
| ASBESTOS | 001332-21-4 | х | | | | |
| CHROMIUM (VI) OXIDE (1:3) | 001333-82-0 | х | | | | |
| CARBON BLACK | 001333-86-4 | х | | | | |
| POLYCHLORINATED BIPHENYLS | 001336-36-3 | х | х | | | |
| ABRIN | 001393-62-0 | | | x | | |
| AFLATOXINS | 001402-68-2 | х | | x | | |

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| | | _ | _ | _ | _ | |
| CHLOROSARIN | 001445-76-7 | | | X | x | |
| DIETHYL PHOSPHORAMIDIC DICHLORIDE, N,N- | 001498-54-0 | | | | | x |
| ISOPROPYLPHOSPHONOTHIOIC DICHLORIDE | 001498-60-8 | ļ | | X | x | |
| DIETHYLHYDRAZINE, 1,2- | 001615-80-1 | X | | | | |
| BOMOXYNIL OCTANOATE | 001689-99-2 | | x | | x | |
| BENZYL VIOLET 4B | 001694-09-3 | x | | | | |
| TETRACHLORODIBENZO-para-DIOXIN, 2,3,7,8- (TCCD) | 001746-01-6 | x | x | x | x | |
| NITROFEN (TECHNICAL-GRADE) | 001836-75-5 | x | | | x | |
| DIRECT BLACK 38 | 001937-37-7 | x | | | | |
| VINCRISTINE SULFATE | 002068-78-2 | | x | | | |
| PENICILLAMINE | 002219-30-9 | | x | | | |
| DIACETOXYSCIRPENOL | 002270-40-8 | ĺ | ĺ | x | ĺ | ÍÍ |
| MIREX | 002385-85-5 | x | x | İ | x | i i |
| CAPTAFOL | 002425-06-1 | x | İ | i | İ | i i |
| CI DIRECT BLUE 15 | 002429-74-5 | x | İ | i | İ | i i |
| DISPERSE BLUE 1 | 002475-45-8 | x | i | i | | i i |
| PROPYLPHOSPHONOTHIOIC DICHLORIDE | 002524-01-8 | ĺ | ĺ | x | x | x |
| DIRECT BLUE 6 | 002602-46-2 | x | ĺ | ĺ | | i i |
| CHLOROETHYLCHLORO-METHYLSULFIDE 2- | 002625-76-5 | | | x | | v |
| OIL ORANGE SS | 002646-17-5 | x | | | | |
| NTTROSVI, CHLORIDE | 002696-92-6 | 21 | | 1 | | l v l |
| HC BLUF 1 | 002090 92 0 | | | 1 | | |
| | 002704 04 0 | | | | | |
| DIITUDAI ACTONE DETA | 002973 - 10 - 0 | | | | | |
| CULODO O TOLUTDINE UNDOCULODIDE / | 003008-88-0 | | | | | |
| DIDROMON GETONITERIE | 003103-93-3 | | | | | |
| DIBROMOACEIONIIRILE | 003252-43-5 | | | | | |
| PROPANEDIOL, 2, 2-BIS-(BROMOEIHIL)-1, 3- | 003296-90-0 | | | | | |
| TETRAMETHYL SUCCINONITRILE | 003333-52-6 | | | X | | |
| NICKEL (II) CARBONATE (I:I) | 003333-67-3 | X | | | | |
| SESQUIMUSTARD | 003563-36-8 | | | X | | |
| PONCEAU 3R | 003564-09-8 | X | | | | |
| THIAZOLE, 2(2-FORMYLHYDROZINE)-4-(5-NITRO-2-FURYL) | 003570-75-0 | X | | | | |
| FURYLAMIDE | 003688-53-7 | X | X | | | |
| METHYLCHRYSENE, 5- | 003697-24-3 | x | | | | |
| PONCEAU MX | 003761-53-3 | x | | | | |
| NAFENOPIN | 003771-19-5 | x | | | | |
| IFOSFAMIDE | 003778-73-2 | | x | | | |
| OXAZOLIDININE, 2, 5-(MORPHOLINOMETHYL)-3-[(5-NITROFURYL] | LDEN: 003795-88-8 | x | | | | |
| STEPTOMYCIN SULFATE | 003801-74-0 | | x | | | |
| NITROSOBUTYLBUTANOLAMINE, N- | 003817-11-6 | x | | | | |
| DACARBAZINE | 004342-03-4 | x | ĺ | ĺ | ĺ | ÍÍ |
| TETRODOTOXIN | 004368-28-9 | İ | İ | x | İ | i i |
| NITROSOMETHYLVINYLAMINE, N- | 004549-40-0 | x | ĺ | x | | ÍÍ |
| ISOTRETINOIN | 004759-48-2 | İ | x | İ | İ | i i |
| RETINOIC ACID, 1,3-CIS- | 004759-48-2 | i | x | i | | i i |
| NITRILOTRIACETIC ACID, TRISODIUM SALT | 005064-31-3 | x | İ | i | İ | i i |
| CHLORDANE, ALPHA | 005103-71-9 | x | x | i | x | i i |
| CHLORDANE, BETA | 005103-74-2 | x | x | İ | x | i i |
| BENZPHETAMINE HYDROCHLORIDE | 005411-22-3 | i | x | i | x | i i |
| NITROPYRENE, 1- | 005522-43-0 | x | x | i | | |
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| BECLOMETHASONE DIPROPIONATE | 005534-09-8 | | x | | | | | | |
| CHLORDANE, GAMMA | 005566-34-7 | x | x | | х | | | | |
| ETHANETHIOL, N,N- (2-DIPROPYLAMINO) | 005842-06-8 | | | | | x | | | |
| ETHANETHIOL, N,N- (2-DIISOPROPYLAMINO) | 005842-07-9 | | | | | x | | | |
| CYCLOPHOSPHAMIDE | 006055-19-2 | x | x | | | x | | | |
| LEAD ACETATE (II) TRIHYDRATE | 006085-56-4 | x | x | | | | | | |
| COBALT (II) ACETATE | 006147-53-1 | x | | | | | | | |
| CITRUS RED NO. 2 | 006358-53-8 | x | | | | | | | |
| CI ACID RED 114 | 006485-34-3 | x | | | | | | | |
| SACCHARIN, CALCIUM SALT | 006485-34-3 | x | | | | | | | |
| NORGESTREL | 006533-00-2 | | x | | | | | | |
| AFLATOXIN M1 | 006795-23-9 | x | | | | | | | |
| CHLOROSOMAN | 007040-57-5 | | | x | х | x | | | |
| PIPERAZINE ESTRONE SULFATE | 007280-37-7 | x | | | | | | | |
| LEAD AND COMPOUNDS | 007439-92-1 | x | x | | | | | | |
| LITHIUM AND COMPOUNDS | 007439-93-2 | | x | | | | | | |
| MERCURY AND COMPOUNDS | 007439-97-6 | | x | | x | | | | |
| NICKEL, METALLIC AND ALLOYS | 007440-02-0 | x | | | | | | | |
| ARSENIC AND COMPOUNDS | 007440-38-2 | x | x | | | | | | |
| BERYLLIUM AND COMPOUNDS | 007440-41-7 | x | | | | | | | |
| CADMIUM AND COMPOUNDS | 007440-43-9 | x | x | | | | | | |
| CHROMIUM, HEXAVALENT AND COMPOUNDS | 007440-47-3 | x | x | | | | | | |
| COBALT AND COMPOUNDS | 007440-48-4 | x | | ĺ | | ÍÍ | | | |
| SULFUR TRIOXIDE | 007446-11-9 | x | İ | İ | | i i | | | |
| LEAD PHOSPHATE | 007446-27-7 | x | x | İ | | i i | | | |
| ZALCITABINE | 007481-89-2 | x | İ | İ | | i i | | | |
| NITROCHRYSENE, 6- | 007496-02-8 | x | İ | İ | | i i | | | |
| TITANIUM TETRACHLORIDE | 007550-45-0 | İ | İ | İ | | x | | | |
| DICHLOROACETYLENE | 007572-29-4 | İ | İ | x | | i i | | | |
| ARSENIC ACID, SODIUM SALT | 007631-89-2 | x | x | x | x | i i | | | |
| BORON TRIFLUORIDE | 007637-07-2 | İ | İ | x | | i i | | | |
| COBALT(II) CHLORIDE | 007646-79-9 | x | İ | İ | | i i | | | |
| HYDROGEN FLUORIDE | 007664-39-3 | İ | İ | x | x | i i | | | |
| AMMONIA (GAS) | 007664-41-7 | İ | İ | x | | i i | | | |
| SULFURIC ACID | 007664-93-9 | x | İ | İ | | i i | | | |
| NITRIC ACID (FUMING) | 007697-37-2 | İ | İ | x | x | i i | | | |
| PHOSPHORUS TRICHLORIDE | 007719-12-2 | İ | İ | x | | x | | | |
| PHOSPHORUS (YELLOW) | 007723-14-0 | ĺ | İ | x | | i i | | | |
| BROMINE | 007726-95-6 | İ | i | x | | i i | | | |
| POTASSIUM BROMATE | 007758-01-2 | x | ĺ | | | i i | | | |
| LEAD CHROMATE | 007758-97-6 | x | | | | i i | | | |
| CHROMIC ACID, DISODIUM SALT | 007775-11-3 | x | İ | | x | i i | | | |
| ARSENIC ACID | 007778-39-4 | x | x | x | x | i i | | | |
| ARSENIC ACID, CALCIUM SALT (2:3) | 007778-44-1 | x | x | x | x | i i | | | |
| POTASSIUM DICHROMATE (VI) | 007778-50-9 | x | x | | | i i | | | |
| FLUORINE | 007782-41-4 | - | | x | | x | | | |
| CHLORINE | 007782-50-5 | İ | İ | x | | i i | | | |
| GERMANE | 007782-65-2 | İ | İ | x | | i i | | | |
| LITHIUM AMIDE | 007782-89-0 | İ | İ | İ | | x | | | |
| HYDROGEN SULFIDE | 007783-06-4 | İ | İ | x | | i i | | | |
| | | | | | | | | | |

| CHEMICAL NAME | CAS # | sc | דיק | ער | | 2HG |
|--|-----------------|----------|-----------|----------|----------|-----------|
| | CAD # | | | | | |
| HYDROGEN SELENIDE | 007783-07-5 | | | x | x | x |
| OXYGEN DIFLUORIDE | 007783-41-7 | | | x | | x |
| GERMANIUM TETRAFLUORIDE | 007783-58-6 | | | x | x | x |
| SULFUR TETRAFLUORIDE | 007783-60-0 | | | x | | x |
| SELENIUM HEXAFLUORIDE | 007783-79-1 | | | x | | x |
| TELLURIUM HEXAFLUORIDE | 007783-80-4 | | | x | x | x |
| ARSENIC TRICHLORIDE | 007784-34-1 | x | x | x | | x |
| ARSENIC PENTAFLUORIDE | 007784-36-3 | x | x | x | | í I |
| ARSENIC ACID, LEAD(2+) SALT (1:1) | 007784-40-9 | x | x | x | x | í I |
| ARSENIC ACID, MONOPOTASSIUM SALT | 007784-41-0 | x | x | x | x | í I |
| ARSINE | 007784-42-1 | x | x | x | | 1 |
| ARSENIUOS ACID, MONOSODIUM SALT | 007784-46-5 | x | x | x | | í I |
| BERYLLIUM CHLORIDE | 007787-47-5 | x | | | | í I |
| BERYLLIUM FLUORIDE | 007787-49-7 | x | | | | |
| BERYLLIUM SULFATE, TETRAHYDRATE (1:1:4) | 007787-56-6 | x | | | | |
| BROMINE TRIFLUORIDE | 007787-71-5 | | | | | X |
| POTASSIUM CHROMATE (VI) | 007789-00-6 | x | x | | | í I |
| CHROMIUM PHOSPHATE | 007789-04-0 | x | | | | |
| STRONTIUM CHROMATE (VI) | 007789-06-2 | x | | | | í I |
| AMMONIUM DICHROMATE (VI) | 007789-09-5 | x | | | x | |
| BROMINE PENTAFLUORIDE | 007789-30-2 | | | x | | í I |
| CHLORINE TRIFLUORIDE | 007790-91-2 | | | x | | |
| CHLOROSULFONIC ACID | 007790-94-5 | | | | | x |
| COBALT(II) CHLORIDE, HEXAHYDRATE | 007791-13-1 | x | | | | (|
| PHOSPHINE | 007803-51-2 | | | x | | x |
| STIBINE | 007803-52-3 | | | x | | x |
| TOXAPHENE (POLYCHLORINATED CAMPHENES) | 008001-35-2 | X | X | | x | (l |
| CREOSOTES | 008001-58-9 | X | | | | ! ! |
| GASOLINE | 008006-61-9 | X | | | x | ! ! |
| COAL-TAR | 00800/-45-2 | | | | X | (|
| SULFURIC ACID, FUMING, MIST | 008014-95-7 | | | | | (|
| CREUSUTE, WOOD | 008021 - 39 - 4 | | | | | (|
| BITUMENS, EXTRACTS OF STEAM-REFINED & AIR-REFINED | 008052-42-4 | | | | | í l |
| CARRAGEENAN, DEGRADED | 009000-07-1 | | | | | i l |
| IRON-DEXTRAN COMPLEX | 009004-66-4 | X | | | | í l |
| RICIN | 009009-86-3 | | | X | | í l |
| BLEOMYCIN SULFAIE | 009041 - 93 - 4 | | | | | i |
| | 010025-78-2 | | | | | |
| CODALE DINIEDAEE HEVALVODAEE | 010025-67-3 | | | | | |
| COBALI DINITRALE HEXAHYDRALE | 010026 - 22 - 9 | | | | | í l |
| UZUNE | 010020 - 15 - 0 | | | | | í I |
| HIDRALINE SULFAIE (1.1) | 010034 - 93 - 2 | | | | | i I |
| NIRILOIRIACEIIC ACID, SODIOM SALI | 010042-04-9 | | | | | í I |
| CTEDICMITOCVCTIN | 010043 - 92 - 9 | | | | | |
| ADGENIC VLIOI DIGUDIIM GVI A. RAMARANA MITICIOLIOI NILICIOLIA MITICIOLIOI NILICIOLIA | 010040-13-2 | | X V | ~~ | ~~ | (|
| CHLORINE DIOXIDE | 010040-95=0 | ^ | ^ | ^ | | |
| NTTRIC OXIDE | | | | • | | |
| NITEOCEN DIOXIDE | 010102 - 43 - 9 | | | | 1 | |
| CADMIIM CHIORIDE | 010102-44-0 | ~ | • | ^ | ~ | |
| CADMION CHICKIDE | 010100-04-2 | - A | <u>~</u> | I | <u>~</u> | i I |

| CHEMICAL NAME | CAS # | sc | RT | AT | SA | DHS |
|--|-------------|----------|----------|----------|----|-----------|
| | | _ | _ | _ | _ | |
| CADMIUM SULFATE (1:1) | 010124-36-4 | x | x | | | (|
| COBALT(II) SULFATE (1:1) | 010124-43-3 | x | | | | (|
| ARSENEOUS ACID, POTASSIUM SALT | 010124-50-2 | x | x | | | |
| COBALT(II) NITRATE (1:2) | 010141-05-6 | x | | | | í I |
| COBALT, DI-MU-CARBONYLNONACARBONYL | 010210-68-1 | x | | | | |
| BORON TRIBROMIDE | 010294-33-4 | | | x | | |
| BARIUM CHROMATE(VI) | 010294-40-3 | x | | | | |
| CADMIUM NITRATE | 010325-94-7 | x | x | | | |
| TAMOXIFEN AND SALTS | 010540-29-1 | x | x | | | í I |
| DINITROGEN TETROXIDE | 010544-72-6 | | | x | | x |
| NITROGEN TETROXIDE | 010544-72-6 | | | x | | í I |
| NITROGEN TRIOXIDE | 010544-73-7 | | | x | х | x |
| SODIUM DICHROMATE (VI) | 010588-01-9 | x | x | | х | í I |
| NITROSOMETHYLETHYLAMINE, N- | 010595-95-6 | x | | | | 1 |
| BLEOMYCINS | 011056-06-7 | x | | | | 1 |
| PCB (AROCLOR 1260) | 011096-82-5 | x | x | | х | 1 1 |
| PCB (AROCLOR 1254) | 011097-69-1 | x | x | | х | |
| CHROMATE(1-), HYDROXYOCTAOXODIZINCATEDI-, POTASSIUM | 011103-86-9 | x | | | | |
| COBALT ALLOY, CO, CR | 011114-92-4 | x | | | | |
| ASBESTOS, CROCIDOLITE | 012001-28-4 | x | | | | |
| ASBESTOS, CHRYSOTILE | 012001-29-5 | x | | | | |
| COBALT HYDROXIDE OXIDE | 012016-80-7 | x | | | | |
| NICKEL SULFIDE (3:2) | 012035-72-2 | x | x | | | i i |
| NICKEL (II) HYDROXIDE | 012054-48-7 | x | | | | i i |
| MAGNESIUM PHOSPHIDE | 012057-74-8 | ĺ | ĺ | İ | | x |
| COBALT, (MU(CARBONATO(2-)-O:O'))DIHYDROXYDI | 012069-68-0 | x | | | | i i |
| MANGANESE TRICARBONYL METHYLCYCLOPENTADIENYL | 012108-13-3 | İ | İ | x | x | i i |
| NICKEL (III) HYDROXIDE | 012125-56-3 | x | İ | İ | | i i |
| ASBESTOS, AMOSITE | 012172-73-5 | x | İ | ĺ | | i i |
| PALYGORSKITE (FIBERS >5 MICROMETERS) | 012174-11-7 | x | İ | İ | | i i |
| SENARMONITE | 012412-52-1 | x | İ | İ | | i i |
| COBALT CARBONATE, COBALT DIHYDROXIDE (2:3) | 012602-23-2 | x | İ | İ | | i i |
| COBALT-CHROMIUM-MOLYBDENUM ALLOY | 012629-02-6 | x | İ | İ | | i i |
| COBALT-CHROMIUM-NICKEL-TUNGSTEN ALLOY | 012638-07-2 | x | İ | İ | | i i |
| BERYLLIUM ALUMINUM ALLOY | 012770-50-2 | x | İ | İ | | i i |
| CHLOROETHYL(2)-3-CYCLOHEXYL-1-NITROSOUREA,1-(CCNU) | 013010-47-4 | x | İ | İ | | i i |
| NITROSOSACOSINE, N- | 013256-22-9 | x | i | İ | | i i |
| RIFAMPIN | 013292-46-1 | ĺ | x | | | i i |
| BERYLLIUM HYDROXIDE | 013327-32-7 | x | i | ĺ | | i i |
| NICKEL CARBONYL | 013463-39-3 | x | İ | x | | i i |
| TITANIUM DIOXIDE | 013463-67-7 | x | İ | | | i i |
| BERYLLIUM SULFATE (1:1) | 013510-49-1 | x | İ | | | i i |
| METHYLENEDIANILINE, 4, 4'-DIHYDROCHLORIDE | 013552-44-8 | x | | | | i i |
| BERYLLIUM HYDROGEN PHOSPHATE (1:1) | 013598-15-7 | x | | | | i i |
| CHLORINE PENTAFLUORIDE | 013637-63-3 | | | x | | x |
| DECABROMOBIPHENYL | 013654-09-6 | x | ĺ | İ | | |
| COBALT MOLYBDATE(VI) | 013762-14-6 | x | i | İ | | i i |
| CALCIUM CHROMATE (VI) | 013765-19-0 | x | ĺ | ľ | | i i |
| CHLOROETHYL(2)-3-(4-METHYLCYCLOHEXYL)-1-NITROSOUREA.1- | 013909-09-6 | x | | | | i l |
| WOOD DUST | 013983-17-0 | x | | | | |

| CHEMICAL NAME | CAS # | SC | RT | AT | SA | DHS |
|--|---|----------|----------|--------------|----------|----------|
| SILICA. CRYSTALLINE CRISTOBALITE | 014464-46-1 | _ x | _ | _ | _ | |
| CADMILIM FLUOBORATE | 014486-19-2 | x | x | | | |
| OHARTZ [SILICA CRYSTALLINE (RESPIRABLE)] | 014808-60-7 | | | | | |
| CYCASIN | 014901-08-7 | x | | | | i i |
| | 014977-61-8 | | | | | ii |
| CHROMIIM (VI)CHLORIDE | 014986-48-2 | | | | | ii |
| STLICIC ACID BERVILIUM SALT | 015191-85-2 | | | | | |
| NITRILOTRIACETIC ACID. DISODIUM SALT | 015467-20-6 | | | | | |
| SILICA, CRYSTALLINE TRIDYMITE | 015468-32-3 | x | | | | |
| METHOTREXATE SODIUM | 015475-56-6 | 11 | | | | ii |
| CISPLATIN | 015663-27-1 | | | | | |
| DIETHYI, METHYI, PHOSPHONITE | 015715-41-0 | 22 | | l V | l V | l v l |
| ZINC CHROMATE (VI) HYDROXIDE HYDRATE | 015930-94-6 | x | x | | 11 | |
| NITROSONORNICOTINE N'- | 016543-55-8 | | | | | ii |
| ESTRA-1 2 5(10) 7-TETRAEN-17-ONE 3-(SULFOOXY)- SODIUM | SAL'016680-47-0 | | | | | |
| NTTROBENZANTHRONE 3- | 017117-34-9 | | 1 | | | |
| DANAZOL | 017230-88-5 | | | | | |
| DECABORANE | 017702-41-9 | | | l Iv | l V | |
| COBALT CARBONYL | 017786-31-1 | | 1 | ^ | | |
| BENOMYL | 017804-35-2 | | | | l I v | |
| DITCAMYCIN | 018378-89-7 | | | | | |
| LEAD CHROMATE (VI) OXIDE | 018454-12-1 | | | | | |
| NITELOTELOTELOTELOTELOTELOTELOTELOTELOTELO | 018662-53-8 | | | | | |
| STREDTOZOTOCIN | 018883-66-4 | | • | | | |
| NITELOTELACETIC ACID MONOSODIUM SALT | 018994-66-6 | | | | | |
| DIROPANE | 010004 00 0 010087-45-7 | | | • | | |
| DEDUCANE DENTA BODANE | 019624_22_7 | | | | | |
| THETHORANE | 020325-40-0 | • | | | | |
| OSMIIIM TETROXIDE | 020325 40 0 | | | l I v | | |
| | 020010 12 0 | | | ^ | | |
| | 020050 01 5 | | | l I v | | |
| CORALT(II) HADROXIDE | 0200000 73 0 | • | | | | |
| NIFFDIDINF | $021041 \ 55 \ 0$ 021829 - 25 - 4 | | | | | |
| TUTUTIM DUOSDHIDE | 022398-80-7 | • | | | | |
| DIFLUSINAL | 022350 00 7 | | | | | |
| DINITEOSINAL | 022505-53-2 | • | | | | |
| METHVI, MERCURV | 022303 33 2 | | 1 | l I v | l I v | |
| ADRIAMYCIN | 023214-92-8 | | l | ^ | | |
| DOYOPHIBICIN HYDROCHLOPIDE (ADRIAMYCIN) | 023214 92 0 | | • | | | |
| PIDDELLINE | 023246-96-0 | • | | | | |
| NITEILINE NITEILATEIACETIC ACID DISODIUM SALT MONOUVDEATE | 023255-03-0 | | | | | |
| RITKINOTKIACEIIC ACID, DISODIOM SALI, MONOMIDIATE | 025013-16-5 | | | | | |
| CLORFTAGOL DRODIONATE | 025015 ± 0.5 $025122 \pm 46 \pm 7$ | | • | | | |
| DENTACHLOROBIDHENVI. | 025122 40 7 | • | | | | |
| I TTUTIM NITUTATI | 026134-62-3 | | | | | -v |
| TOLIENE DITCOCVANATE $1 3 -$ | 020131-02-3 | ~ | ~ | | | |
| CODIUM ATIDE | 0204/1-02-5 | | | ~~ | • | |
| ADSENEOUS ACID CALCIUM SALT | 020020-22-0 | •• | | ^ | | |
| ARGENEUUS ACID, CALCIUM SALI | 02/102-0/-4 | | | • | | |
| AKOBNIJOO ACID, CALCION DALI | 02/102-0/-4 | | | <u>^</u> | | |
| CICHOLENIN CD]LIVENE | 02/200-3/-3 | 1 ~ | 1 | 1 | 1 | I |

| CHEMICAL NAME | CAS # | sc | RT | AT | SA | DHS |
|--|----------------------------|----------|----------|----------|------------|-----------|
| | | _ | | _ | _ | i i |
| DICHLORO-4,4'-DIAMINODIPHENYL ETHER, 3,3'- | 028434-86-8 | x | | | | |
| ALPRAZOMAN | 028981-97-7 | | x | | x | |
| ATENOLO | 029122-68-7 | | x | | x | (|
| CHROMIUM CARBONATE | 029689-14-3 | x | | | | |
| TONIPOSIDE | 029767-20-2 | x | x | | | |
| ZIDOVUDINE (AZT) | 030516-87-1 | x | | | | (l |
| MEBENDAZOLE | 031431-39-7 | | x | | | (l |
| ETOPOSIDE | 033419-42-0 | X | X | | | (l |
| AURANOFIN | 034031-32-8 | | X | | | (l |
| SAXITOXIN | 035523-89-8 | | | X | | (l |
| RIBVARIN | 036791-04-5 | | X | | | (l |
| SULINDAC | 038194-50-2 | | x | | | (l |
| BUTYRIC ACID, 4-(N-BUTYL-N-NITROSAMINO)- | 038252-74-3 | X | | | [] | (l |
| DIAMINOANISOLE SULPHATE, 2,4- | 039156-41-7 | X | | | | (|
| BERYLLIUM ZINC SILICATE | 039413-47-3 | X | | | | (|
| LEWISITE 2 | 040334-69-8 | | | X | x | X |
| LEWISITE 3 | 040334-70-1 | | | X | X | |
| CIPROPIL PHOSPHORAMIDIC DICHLORIDE, N,N- | 040881-98-9 | | | | | |
| CARBOPLATIN | 0415/5-94-4 | | | | X | (|
| DINITROPYRENE, 1,6- | 042397-64-8 | | | | | (|
| DINIIROPIRENE, 1,8- | 042397-65-9 | | | | / | i |
| ETHYL-S-DIMETHYLAMINOETHYLMETHYLPHOSPHONOTHIOLATE (VX) | 050782 - 69 - 9 | | | X | X | |
| AMSAURINE | 051264 - 14 - 3 | | | | i ļ | |
| ARSONIC ACID, CALCIUM SALI (1.1) | 052/40-10-0 | | | | 1 | í l |
| PENIOSIAIIN | 053910-25-1 | | | | i ļ | |
| CULODOZOTOCIN | 054350-46-0 | 37 | | | Í I | i I |
| | 054749-90-5 | | | | | |
| CLORAGEPAIE DIPOIRSSION DENTRACUI ODODIDUENINI 2 $I = I = I = I = I = I = I = I = I = I $ | 057109-90-7 057465-28-8 | | | | | |
| NITPODVPENE 4_ | 057835-92-4 | | | | í I | |
| TDADIBICIN HYDDOCHLODIDE | 057852-57-0 | | • | | í I | |
| ETTUXI (-2) -DIIGODGODVI AMINOFTUVI METUVI DUOGDUONITTE $(-(0)$ | 057856-11-8 | | | -v | -v- | |
| MIGODOGEOL | 057850-11-8 | | | | | |
| | 059122-46-2 | | X | | i | í |
| POLYBROMINATED BIPHENYLS | 059536-65-1 | x | x | | [] | ! ! |
| CYCLOSPORIN A | 059865-13-3 | x | x | | | x |
| N-NITROSOMETHYLAMINO-PROPIONITRILE, 3- | 060153-49-3 | x | | | | 1 |
| OCTABROMOBIPHENYL | 061288-13-9 | x | | | | 1 1 |
| COBALT NAPHTHATE | 061789-51-3 | x | | | | |
| TRP-P-2(3-AMINO-1-METHYL-5H-PYRIDO[4,3-b]INDOLE) | 062450-06-0 | x | x | İ | į i | i i |
| TRP-P-1(3-AMINO-1,4-DIMETHYL-5H-PYRIDO[4,3-b]INDOLE) | 062450-07-1 | x | İ | ĺ | į i | i i |
| CHLORINATED PARAFFINS (CARBON-12, 60% CHLORINE) | 063449-39-8 | x | | | | |
| BIS(2-CHLOROETHYLTHIO)METHANE | 063869-13-6 | | | x | , I | i i |
| BIS(2-CHLODOFTHVI,THIO) - N - DDODNE 1 3- | 063905-10-2 | | | <u></u> | | i i |
| MUGUADD O (III) | | | | | í ' | i |
| $MUDIARD, U^{-}(I)$ | 003910-09-0 | | | | [] | |
| BIS (2-CHLOROETHYLTHIOMETHYL) ETHER | 003918-90-1 | | | X | i | į į |
| N-NITROSOMETHYLAMINO-1-(30PYRIDYL)-1-BUTANONE, 4- (NNK) | 064091-91-4 | X | | | 1 | (|
| NNK(4-(N-(NITROSOMETHYLAMINO)-1-(3-PYRIDYL)-1-BUTANONE) | 064091-91-4 | x | | | 1 | (L |
| COAL TAR | 065996-89-6 | x | | | x | |

| CHEMICAL NAME | CAS # | SC | RT | AT | SA | DHS |
|---|-------------|-----|---------|----|-----|-----|
| COAL TAR DISTILLATE | 065996-92-1 | | _ | | x - | |
| COAL-TAR PITCHES | 065996-93-2 | x | i i | | x | i i |
| BERYLLIUM OXIDE CARBONATE | 066104-24-3 | x | i i | | | i i |
| ERIONITE | 066733-21-9 | x | i i | | | i İ |
| GLU-P-2(2-AMINODIPYRIDO[1,2-A:3',2'-D]IMIDAZOLE) | 067730-10-3 | x | x | | | i İ |
| GLU-P-1 (2-AMINO-6-METHYLDIPYRIDO[1,2-a:3',2'-d]IMIDAZOLE | 067730-11-4 | x | x | | | i İ |
| BLEOMYCIN, HYDROCHLORIDE | 067763-87-5 | x | i i | ļ | i i | İ |
| POLYBROMINATED BIPHENYL (FF-1) | 067774-32-7 | x | x | | | i İ |
| MeA-ALPHA-C(2-AMINO-3-METHYL-9H-PYRIDO[2,3-b]INDOLE) | 068006-83-7 | x | i i | ļ | i i | İ |
| SHALE-OILS | 068308-34-9 | x | i i | ļ | x | İ |
| MITOXANTRONE HYDROCHLORIDE | 070476-82-3 | į į | x | ļ | x | İ |
| DINITROPYRENE, 1,3- | 075321-20-9 | x | İ | | x | İ |
| IQ(2-AMINO-3-METHYLIMIDAZO[4,5-f]QUINOLINE) | 076180-96-6 | x | Í | | į i | İ |
| AMINO-3,4-DIMETHYL-3h-IMIDAZO(4,5f)QUINOLINE,2- | 077094-11-2 | x | | | i i | İ |
| CHLORO-4-(DICHLOROMETHYL)-5-HYDROXY-2(5H)-FURANONE,3- | 077430-76-0 | x | İ | | | İ |
| AMINO-3,8-DIMETHYL-3H-IMIDAZO(4,5-f)QUINOXALINE, 2- | 077500-04-0 | x | | | i i | İ |
| ASBESTOS, ACTINOLITE | 077536-66-4 | x | | | i i | Í |
| ASBESTOS, ANTHOPHYLLITE | 077536-67-5 | x | Í | | i i | Ì |
| ASBESTOS, TREMOLITE | 077536-68-6 | x | | | i i | |
| CICLOSPORIN | 079217-60-0 | x | | | i i | Í |
| CYCLOSPORIN | 079217-60-0 | x | x | | i i | x |
| GANCICLOVIR | 082410-32-0 | | x | | i I | |
| MYCLOBUTANIL | 088671-89-0 | | x | | i I | |
| MICROCYSTIN | 101043-37-2 | x | Í | | i i | Í |
| PHLP(2-AMINO-1-METHYL-6-PHENYLIMIDAZO[4,5-B]PYRIDINE) | 105650-23-5 | x | | | i I | |
| DINITROFLUOROANTHENE, 3,7- | 105735-71-5 | x | | | | |
| GANCICLOVIR HYDROCHLORIDE | 107910-75-8 | | x | | i I | |
| CHLORINATED TOULENES, ALPHA- | 108171-82-2 | x | | | | |
| FUMONISIN B1 | 116355-83-0 | x | | | i I | |
| BIS(2-CHLOROETHYLTHIO)-N-BUTANE, 1,4- | 142868-93-7 | | | x | ļ | Í |
| BIS(2-CHLOROETHYLTHIO)-N-PENTANE,1,5- | 142868-94-8 | | | x | | |