

# Common Hazardous Wastes



## Waste Oils

Engine oil,  
Transmission fluid

Lubricating oil

Hydraulic oil

Gear oil

Transformer fluid

Cutting oil

Tempering or quenching oil

Grease

Brake fluid

Disposal

Recyclable, but contaminated

with: Solvents, chlorinated solvents, and other organic compounds e.g. naphthalene, benzo(a)pyrene and TCE.

Metals

PCB contaminated oils are also

known to be sold illegally for

recycling or reuse, such as in

the following applications:

- Used for dipping cattle
- Making of candles
- Mixed with tractor fuel
- Used as base oil (less expensive than virgin oil)
- Mixed with cooking and olive



## **Batteries**

Trend in reducing mercury content, but all batteries still highly hazardous (HR1 and 2)  
burning /incineration releases heavy metals into atmosphere with smoke (cadmium  
condenses onto the smallest particles that are difficult to contain)

Heavy metals disposed with ash (to landfill) Options: Recycle (recover metals); landfill  
(encapsulate)

- Mercury chloride
- Potassium hydroxide
- Tin
- Zinc
- Zinc Chloride

### **Rechargeable**

- Cadmium
- Nickel
- Carbon black
- Lead
- Manganese dioxide
- Mercury

### **Disposable**

#### **Dry Cell Wet Cell**

- Lead
- Lead oxide
- Lead sulphate
- Sulphuric acid

#### **Lead Acid**



**Hazardous elements and compounds**

**Lead** in cathode ray tube and solder

**Arsenic** in older cathode ray tubes

**Selenium** in circuit boards as power supply rectifier

**Polybrominated flame retardants** in plastic casings, cables and circuit boards

**Antimony trioxide** as flame retardant

**Cadmium** in circuit boards and semiconductors

**Chromium** in steel as corrosion protection

**Cobalt** in steel for structure and magnetivity

**Mercury** in switches and housing PCB's

•Antimony, Silver,

Chromium,

•Zinc, Lead, Tin and

Copper

•Plastics

•PVC's

•Flame retardants

(brominated)

•Different types, not



**TOXICITY CHARACTERISTIC CONSTITUENTS AND REGULATORY LEVELS**

Waste Code	Contaminants	Concentration
D004	Arsenic	5.0
D005	Barium	100.0
D018	Benzene	0.5
D006	Cadmium	1.0
D019	Carbon tetrachloride	0.5
D020	Chlordane	0.03
D021	Chlorobenzene	100.0
D022	Chloroform	6.0
D007	Chromium	5.0
D023	o-Cresol*	200.0
D024	m-Cresol*	200.0
D025	p-Cresol*	200.0
D026	Total Cresols*	200.0
D016	2,4-D	10.0
D027	1,4-Dichlorobenzene	7.5
D028	1,2-Dichloroethane	0.5
D029	1,1-Dichloroethylene	0.7
D030	2,4-Dinitrotoluene	0.13
D012	Endrin	0.02
D031	Heptachlor (and its epoxide)	0.008
D032	Hexachlorobenzene	0.13
D033	Hexachlorobutadiene	0.5
D034	Hexachloroethane	3.0
D008	Lead	5.0
D013	Lindane	0.4
D009	Mercury	0.2
D014	Methoxychlor	10.0
D035	Methyl ethyl ketone	200.0
D036	Nitrobenzene	2.0
D037	Pentachlorophenol	100.0
D038	Pyridine	5.0
D010	Selenium	1.0
D011	Silver	5.0
D039	Tetrachloroethylene	0.7
D015	Toxaphene	0.5
D040	Trichloroethylene	0.5
D041	2,4,5-Trichlorophenol	400.0
D042	2,4,6-Trichlorophenol	2.0
D017	2,4,5-TP (Silvex)	1.0
D043	Vinyl chloride	0.2