

Type 1: Special Waste

refers to waste that reacts with water or air (water reactive/air reactive substances), potentially explosive wastes (e.g., azides, peroxides), organic wastes of unknown origin and carcinogenic wastes such as ethidium-bromide, etc.

Type 2: Cyanide Waste

refers to waste containing cyanide as an ingredient, such as sodium cyanide, potassium cyanide, wastes containing cyanide compounds or cyano complexes such as $\text{Ni}(\text{CN})_4^{2-}$, etc.

If mixed with Type 4: Mercury Waste
Classified as Type 1: Special Waste

Type 3: Oxidizing Waste

refers waste with electron-acceptor properties such as nitric acid, perchloric acid, >60% sulfuric acid, potassium permanganate, sodium chlorate, sodium periodate and sodium persulfate. It may react violently with other substances and cause explosion.

If mixed with Type 5: Chromate Waste
Classified as Type 5: Chromate Waste

Type 4: Mercury Waste

refers to waste containing mercury as a component, such as mercury (II) chloride, alkyl mercury, broken glass fragments from a mercury thermometer, etc.

If mixed with Type 2: Cyanide Waste
Classified as Type 1: Special Waste

Type 5: Chromate Waste

refers to waste containing chromium as its constituent, such as Cr(VI), chromic acid, waste from Chemical Oxygen Demand (COD) analysis [If mercury is also used, it shall be classified as mercury waste (Type 5: Mercury Waste)], etc.

Type 6: Heavy Metal Waste

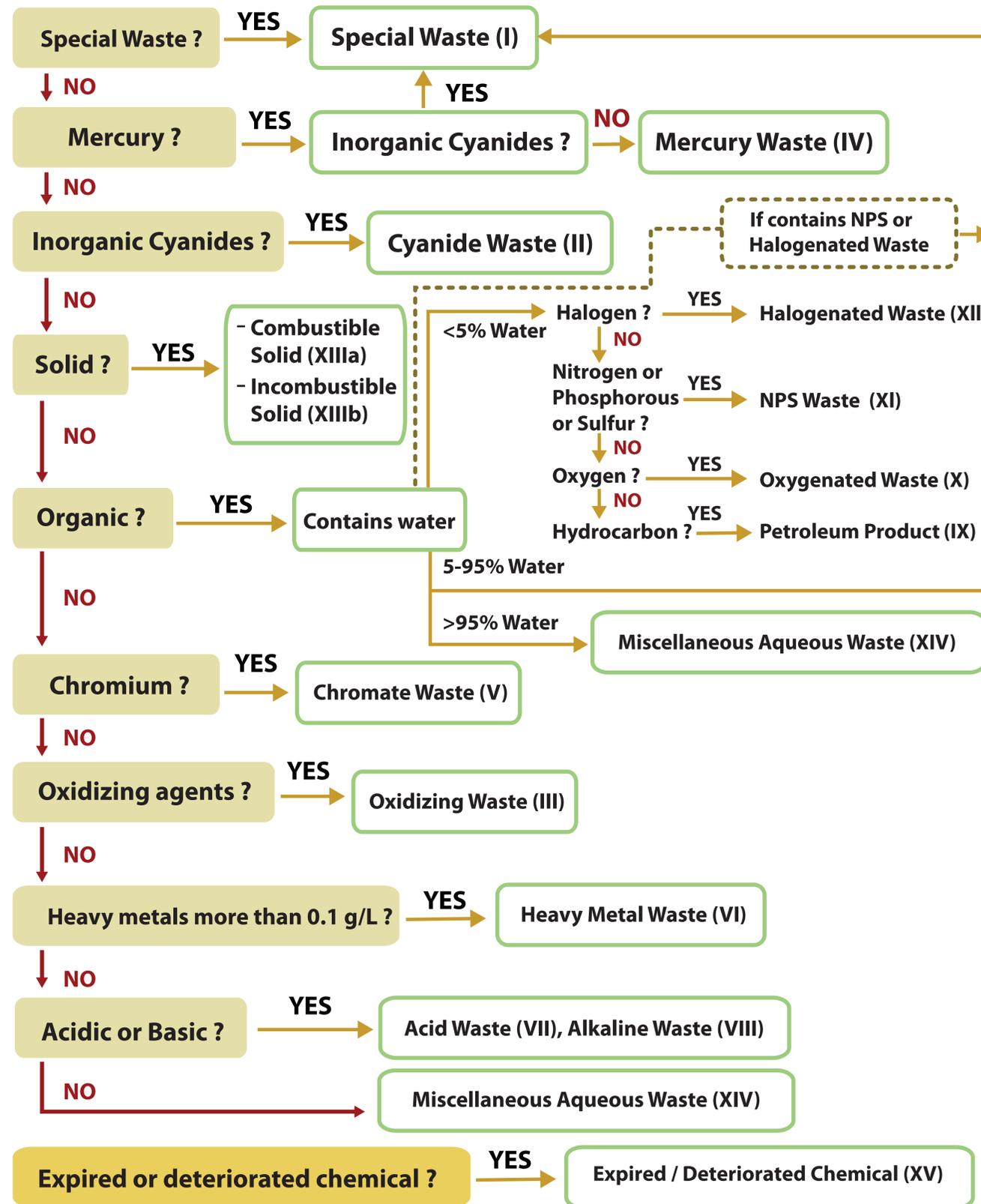
refers to waste that contains ions of heavy metal other than mercury as an ingredient, such as barium, cadmium, lead, copper, iron, manganese, zinc, cobalt, nickel, silver, tin, antimony, tungsten, vanadium, etc.

Type 7: Acid Waste

refers to waste with a pH lower than 7 and containing more 5% mineral acid, such as sulfuric acid, hydrochloric acid, etc.



Guidelines for the classification of 15 hazardous wastes according to the WasteTrack system of Chulalongkorn University



Type 8: Alkaline Waste

refers to waste with a pH higher than 8 and containing more 5% base in the solution, such as carbonate, hydroxide, ammonia, etc.

Type 9: Petroleum Product

refers to petroleum waste, and oil-derived products such as gasoline, diesel oil, kerosene, engine oil, lubricant, and also hydrocarbons (hexane, pentane, xylene), etc.

Type 10: Oxygenated Waste

refers to waste containing organic compounds that contain oxygen in the structure, such as ethyl acetate, acetone, ester, alcohol, ketone, ether, aldehyde, etc.

Type 11: NPS Containing Waste

refers to waste containing organic compounds that contain nitrogen or phosphorus or sulfur, for example, dimethyl formamide (DMF), dimethyl sulfoxide (DMSO), acetonitrile, amine, amide.

If mixed with Type 12: Halogenated Waste
Classified as Type 1: Special Waste

Type 12: Halogenated Waste

refers to waste containing organic compounds of halogens, such as carbon tetrachloride (CCl_4), trichloroethylene (C_2HCl_3).

If mixed with Type 11: NPS Containing Waste
Classified as Type 1: Special Waste

Type 13: Combustible/Incombustible Solid

(a) Combustible Solid such as plant residue from extraction with organic solvents, chemical contaminated gloves, etc.
(b) Incombustible Solid such as silica gel, broken glass fragments, etc.

Type 14: Miscellaneous Aqueous Waste

refers to water-based wastes and contain less than 5% nontoxic organic matter. If it is harmful to health or the environment (any concentration) shall be classified as a Type 1: Special Waste).

Type 15: Expired or Deteriorated Chemical

refers to expired chemicals or deteriorated chemicals that its name and hazards can be identified.