

**UGANDA'S INFORMATION AND DATA ON THE WASTE CATEGORIES LISTED IN THE INDICATIVE LIST CONTAINED IN TABLE 3 OF DECISION MC - 3/5 INCLUDING WITH RESPECT TO ANY RELEVANT NATIONAL OR LOCAL THRESHOLDS AND THEIR ESTABLISHMENT**

Table 1.0 below details information and data on the waste categories listed in the indicative list contained in Table 3 of decision MC – 3/5 including relevant national or local thresholds and their establishment.

Table 1.0: Indicative list of waste contaminated with mercury or mercury compounds

S/N	Type of waste	Waste source <sup>b</sup>	Data on estimated Mercury Releases (MIA study of 2018)							Relevant national or local thresholds	Comment/remarks
			Presence of source	Air	Water	Land	By-products	General waste	Sector specific		
1	Waste from industrial pollution control devices or cleaning of industrial off-gases <sup>c</sup>	Flue gas from sources such as:								1 µg/m <sup>3</sup> (annual ambient air limit)	The draft air quality standard does not provide emission limits for Hg, but rather the annual ambient air quality value, not source specific  No thresholds are defined by source. Waste management regulations only provide a threshold to
		Extraction and use of fuels/energy sources	Yes (Other coal use, Other fossil fuels - extraction and use & Biomass fired power and heat production)	948	0	0	0	0	0		

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			Presence of source	Air	Water	Land	By-products	General waste	Sector specific		
		Smelting and roasting processes in the production of non-ferrous metals	No								<p>guide the characterization and management e.g. Y49 - Waste containing mercury and/or mercury compounds listed as follows</p> <p>(a) Waste containing 0.1% or more by weight of any of the following mercury and/or mercury compounds listed as follows – mercury, mercury benzoate, ethylmercury chloride, mercurous chloride, mercuric chloride, mercury ammonium chloride, methylmercuric chloride, mercuric oxycyanide, mercury oleate, mercury gluconate, mercury acetate, mercury salicylate,</p>
		Production processes with mercury impurities	Yes (cement)	165	0	0	71	0	0		
		Recovery of precious metals from waste electrical and electronic equipment	source not part of the tool kit								
		Coal combustion									
		Waste incineration and co-incineration									
		Crematoria									
2	Bottom ash	Coal combustion	No information								
		Biomass fired power	No information								

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			Presence of source	Air	Water	Land	By-products	General waste	Sector specific		
		heat generation	No information								mercuric oxide, mercury cyanide, mercuric potassium cyanide, diethyl mercury, dimethyl mercury, mercury (II) bromide, mercurous nitrate, mercuric nitrate, phenyl mercuric hydroxide, mercuric thiocyanate, mercuricarsenate, mercury (II) iodide, mercury potassium iodide, mercury fulminate, mercury sulphide, mercurous, mercuric;
		Waste incineration	No information								
3	Wastewater treatment residues/slurries <sup>d</sup>	Treatment of wastewater from:	Yes	0	193	77	58	58		0.01 mg/l (effluent discharge limit irrespective of sources)	(b) Waste containing 1% or more by weight of any of the following mercury and/or mercury compounds – mercury nucleate, mercurous acetate, phenylmercury
		Extraction and use of fuels/energy	Data not specific to source								
		Production of mercury-added products	Data not specific to source								
		Manufacturing processes in which mercury or mercury compounds are used	Data not specific to source								
		Primary non-ferrous metals production	Data not specific to source								
		Production processes with mercury impurities	Data not specific to source								

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			Presence of source	Air	Water	Land	By-products	General waste	Sector specific		
		Recovery of precious metals from waste electrical and electronic equipment	Data not specific to source								acetate, phenylmercuric nitrate, thimerosal  (schedules adopted from the Basel Convention)
		Waste incineration, co-incineration and other thermal treatment	Data not specific to source								
		Crematoria	Data not specific to source								
		Healthcare facilities	Data not specific to source								
		Controlled landfills	Data not specific to source								
		leachate	Data not specific to source								
		Uncontrolled dumping of wastes	Data not specific to source								

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			Presence of source	Air	Water	Land	By-products	General waste	Sector specific		
		Agricultural facilities	Data not specific to source								
4	Sludge	Separator tanks and sedimentary sand tanks for refining of crude oil, natural gas production and processing, drilling, ship cleaning, chemical processes, etc.	No information								
		Treatment of wastes contaminated with mercury (e.g., chemical precipitation and chemical oxidation)	No information								
5	Oil and gas refining catalyst	Refining of crude oil	No source								

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			Presence of source	Air	Water	Land	By-products	General waste	Sector specific		
		Processing of natural gas	No source								
6	Tailings and extraction process residues	Primary mercury mining	No source								
		Artisanal and small-scale gold mining	Yes - <b>Primary (virgin) metal production</b> (Gold and silver extraction with the mercury-amalgamation process)	12,136	3333	3027					
7	Rubble, debris and soil <sup>e</sup>	Construction/demolition Remediation of contaminated sites	No study								
8	Other waste from manufacturing processes using mercury or	Chlor-alkali production with mercury technology	No								

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			Presence of source	Air	Water	Land	By-products	General waste	Sector specific		
	mercury compounds <sup>f</sup>	Production of alcoholates (e.g., sodium or potassium methylate or ethylate)									
		Dithionite and ultrapure potassium hydroxide solution Vinyl chloride monomer (VCM) production with mercuric chloride (HgCl <sub>2</sub> ) catalyst	No								
		Acetaldehyde production with mercury sulphate (HgSO <sub>4</sub> ) catalyst, etc.	No								
9	Other waste from the manufacturing of	Manufacturing of mercury-added products	Yes ( <b>Waste incineration</b> - Incineration of hazardous	5308	0	0	0	0	14		

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	mercury-added products <sup>g</sup>		waste, Incineration of medical waste & Informal waste burning)								
10	Other waste from natural gas cleaning <sup>h</sup>	Natural gas cleaning	No								
11	Wastes from waste treatment facilities <sup>i</sup>	Waste treatment facilities	Yes (Controlled landfills/deposits, Informal local disposal of industrial production waste, Informal dumping of general waste, Waste water system/treatment)	114	301	939	0	58	58		

<sup>a</sup> Wastes listed in this table are regarded as mercury waste when they exceed thresholds. Waste exceeding the established threshold but not listed here would also be considered mercury waste.

<sup>b</sup> A facility or activity where waste is likely to be generated or accumulated.



- <sup>c</sup> Includes filters and activated carbon.
- <sup>d</sup> Include filters and resins.
- <sup>e</sup> Contaminated soil transported off-site is regarded as waste.
- <sup>f</sup> Mercury cells, mercury recovery units (retort), waste catalysts, decommissioning or demolition waste, personal protective equipment, elements used to contain mercury spills, etc.
- <sup>g</sup> Process residues, demolition waste, etc.
- <sup>h</sup> Scale removed from pipework and pipe cleaning equipment, etc.
- <sup>i</sup> Waste treated to stabilize/solidify mercury in the waste, fluorescent coatings, metal and glass.

### **Challenge**

No sorting including categorization of hazardous waste including waste that may be suspected to contain mercury or mercury compound is carried out at the point of generation/primary collection. Therefore chemical content quantification of this waste is not possible and is not carried out. In addition, during the disposal of hazardous waste, the byproducts and final waste product are not categorized. The method of final disposal of hazardous waste including waste containing mercury is incineration in most cases where flue gas is not condensed and sludge stabilized.