Advantech Waste Management and disposal Model

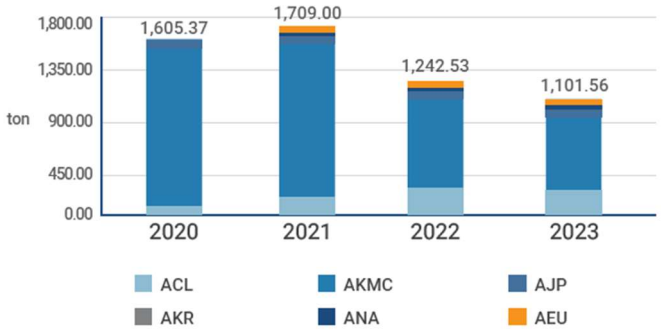
Advantech's waste management strategy is to reduce the total amount of waste and turn waste into resources. We regularly promote and training employees on waste reduction management, and the production factory also holds regular meetings to track the waste reduction plans and performance of each unit. In addition to reducing waste output through source management measures such as the reduction of raw materials, Advantech also monitors waste types and disposal methods to identify opportunities for improvement, and actively promote process improvement or waste resource utilization, such as replacing the existing tube disposal model through recycling of reusable packaging materials, in order to turn waste into useful resources, not only a true recycling and reduce the resource consumption and cost of waste disposal. Advantech monitors waste disposal contractors every year. If contractors are in breach of contract or violate government regulations, we will take corresponding disposal, guidance, or replacement measures. In 2023, Advantech did not have any major breach of contract or violation of law by any of its waste contractors. The Company's waste management model as following table:

Advantech Waste Management Model

Type of waste		Content description	Action taken	Ultimate disposal method
General Office Waste	Bottles	PET bottles/steel or aluminum cans, etc.	Dedicated recycling	Recycling and reuse
	Paper	Newspapers/magazines/photocopying paper/ printing paper/cartons/boxes, etc.	Dedicated recycling	Recycling and reuse
	General-use glass	Beverage bottles, etc.	Dedicated recycling	Recycling and reuse
	General-use plastic	Beverage bottles/waste containers, etc.	Dedicated recycling	Recycling and reuse
	Other recyclable resources	Batteries/toner clips/lights, etc.	Dedicated recycling or photocopier contractor	Recycling and reuse
	Food waste	Compost food waste/pig food waste, etc.	Outsourced general waste	Fertilizer use
	Domestic waste	Office household waste, etc.	Outsourced general waste	Incineration
Industrial Waste	General industrial waste	PCB scrap/waste electronic parts/waste sponges/waste tape, etc.	Entrust qualified vendors or dedicated recycling	Incineration/ Recycling
	Hazardous industrial waste	Waste tin slag/chemical waste liquid, etc.	Entrust qualified vendors	Incineration/ Recycling

Regarding the final amount of business waste disposal at Advantech's main operating locations and production factories, as the weight of domestic waste is the estimated quantity for clearance and transportation contracted for, and further information on the weight of disposal and classification is not available, only the information on industrial waste is disclosed, see the following figure:

Amount of industrial waste disposal by Advantech's main operating locations and production factories in recent years



*Note:
1. Statistics on the waste weight of ACL and AKMC are the data reported by each plant to the competent authority; statistics on waste of AJP, ANA and AEU are the data from outsourcing.
2. The waste weight in South Korea was not calculated from 2020 to 2023.
3. The waste weight for ANA and AEU were not calculated in 2020.

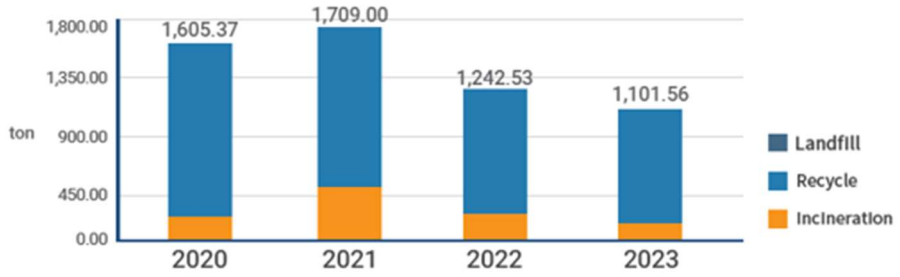
According to statistics, the total waste disposal volume of Advantech's main operating locations and production areas outsourced in 2023 was 1,101.56 metric tons, of which non-hazardous waste was 914.09 metric tons (83.0 %) and hazardous waste was 187.47 metric tons (17.0%). Advantech is committed to implementing a Zero Waste to Landfill policy, executing reduction, reuse, and recycling programs for industrial waste in the factory. Currently, Advantech does not use any landfill method to dispose of any waste from its main operating locations and production factories. We have self-assessed the total diversion rate was 82% in 2023. (Only the declared data of industrial waste is calculated, and some of the waste self-recycling and resue in the factory have not had been included.) In the future, we are committed to increasing the Diversion Rate to more than 90%. While moving towards a benign waste resource cycle, it is also in line with international waste trend. In order to reduce the amount of hazardous industrial waste, AKMC developed and implemented a project to replace the liquid coating process with the powder coating process to reduce the amount of lacquer residue, that in 2023, a total of 47 metric tons was reduced compared to 2022. For waste disposal and its percentage, see the following table and figure:

Waste disposal methods of Advantech's main operating locations and production factories in 2023

	Incineration	Landfill	Recycle
Hazardous business waste (metric tons)	95.49	0	91.98
Non-hazardous business waste (metric tons)	0.23	0	913.86
Percentage of disposal method	8.69%	0%	91.31%

*Note:
1. Statistics on the waste weight of ACL and AKMC are the data reported by each factory to the competent authority; statistics on waste of AJP, ANA and AEU are the data from outsourcing.
2. The waste weight in South Korea was not calculated in 2023.

Industrial waste disposal status of Advantech's main operating locations and production factories in recent years



*Note:
1. Statistics on the waste weight of ACL and AKMC are the data reported by each factory to the competent authority; statistics on waste of AJP, ANA and AEU are the data from outsourcing.
2. The waste weight in South Korea was not calculated from 2020 to 2023.
3. The waste weight for ANA and AEU were not calculated in 2020.
4. According to the waste disposal code reported by the AKMC to the competent authority, the data for the waste disposed of by AKMC in landfills from 2020 to 2022 should be disposed of for recycling and reuse, hence this is revised.

Highlight case

In recent years, Advantech's Taiwan factory has begun to introduce the thinking of circular economy. Principles are valued and introduced into the project of tin slag reuse, such as resource reuse, waste reduction, waste reduction, etc. Therefore, harmful waste tin slag is successfully recycled and reused by using a solder spatter separator. The amount of tin dross waste was reduced by 68%, resulting in a reduction in the output of hazardous waste.