

## Amount of waste generated from industry 2011

*The release comprises selected statistical data on the amount of waste generated from industry in 2011 by sectors, by catalogue groups of waste and statistical waste classification.*

*Of the total 557 635.81 tonnes of waste generated in industry, mining sector has generated 1 790.46 tonnes, i.e. 0.3%; manufacturing 60 271.81 tonnes, i.e. 10.8%; and sector of electricity, gas and steam supply 495 573.54 tonnes, i.e. 88.9%.*

*By sectors, the relationship of non-hazardous and hazardous waste is the following: mining sector (31.4% of non-hazardous waste, and 68.6% of hazardous waste), manufacturing sector (90.3% of non-hazardous waste, 9.7% of hazardous waste,) and electricity, gas and, steam supply (99.9% of non-hazardous waste, 0.1% of hazardous waste).*

**Table 1 Industrial waste generated by sectors  
2011**

MONTENEGRO	Mining	Manufacturing and quarrying	Electricity, gas, and steam supply	Total
<b>Non-hazardous waste</b>	1 227.44	54 446.58	495 385.19	551 059.21
<b>Hazardous waste</b>	563.02	5 825.23	188.35	6 576.60
<b>TOTAL;</b>	<b>1 790.46</b>	<b>60 271.81</b>	<b>495 573.54</b>	<b>557 635.81</b>

**Table 2 Industrial waste generated by catalogue groups of waste  
2011**

<b>Amount of waste generated</b>		Non-hazardous	Hazardous	Total
<b>Mining and quarrying</b>		<b>1 227.44</b>	<b>563.02</b>	<b>1 790.46</b>
01	Wastes resulting from exploration, mining, quarrying, physical and chemical treatment of minerals	731.18		731.18
12	Wastes from shaping and physical and mechanical surface treatment of metals and plastics		0.72	0.72
13	Oil wastes and wastes of liquid fuels (except edible oils, and those in chapters 05, 12 and 19)		558.97	558.97
15	Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified			0.00
16	Wastes not otherwise specified in the list	26.26	3.33	29.59
17	Construction and demolition wastes (including excavated soil from contaminated sites)	400.00		400.00
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions	55.00		55.00
<b>Manufacturing</b>		<b>54 446.58</b>	<b>5 825.23</b>	<b>60 271.81</b>
01	Wastes resulting from exploration, mining, quarrying, physical and chemical treatment of minerals	510.00		510.00
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing	14 817.33		14 817.33
03	Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard	12 088.71	8.25	12 096.96
04	Wastes from the leather, fur and textile industries	7.45		7.45
05	Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal		335.00	335.00
06	Wastes from inorganic chemical processes		0.25	0.25
08	Wastes from the manufacture, formulation, supply, and use of coatings (paints, varnishes, and vitreous enamels), adhesives, sealants and printing inks	0.02	0.12	0.14
10	Wastes from thermal processes	16 783.79	2 049.19	18 832.98
11	Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydrometallurgy		103.65	103.65
12	Wastes from shaping and physical and mechanical surface treatment of metals and plastics	2 649.88	3.35	2 653.23
13	Oil wastes and wastes of liquid fuels (except edible oils, and those in chapters 05, 12 and 19)		3 260.67	3 260.67
14	Waste organic solvents, refrigerants and propellants (except 07 and 08)		0.40	0.40
15	Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified			0.00
16	Wastes not otherwise specified in the list	3 618.01	28.55	3 646.56
17	Construction and demolition wastes (including excavated soil from contaminated sites)	541.45		541.45

18	Wastes from human or animal health care and/ or related research (except kitchen and restaurant wastes not arising from immediate health care)	8.97		8.97
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use	1 522.40	35.55	1 557.95
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions	716.01		716.01
<b>Electricity, gas and steam supply</b>		<b>495 385.19</b>	<b>188.35</b>	<b>495 573.54</b>
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing	18 846.10		18 846.10
03	Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard	40.00		40.00
06	Wastes from inorganic chemical processes	5.00		5.00
10	Wastes from thermal processes	47 5440.00		475 440.00
12	Wastes from shaping and physical and mechanical surface treatment of metals and plastics		0.40	0.40
13	Oil wastes and wastes of liquid fuels (except edible oils, and those in chapters 05, 12 and 19)		187.07	187.07
15	Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified	86.25	0.41	86.66
16	Wastes not otherwise specified in the list	4.90	0.47	5.37
17	Construction and demolition wastes (including excavated soil from contaminated sites)	771.00		771.00
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions	191.94		191.94
<b>MONTENEGRO</b>		<b>551 059.21</b>	<b>6 576.6</b>	<b>557 635.81</b>

**Table 3. Industrial waste generated by statistical waste classification 2011**

Type of waste EWC/Stat Version 4	Description	Characteristics of the waste <sup>1</sup>	Mining and quarrying	Manufacturing	Electricity, gas and steam supply
1	01.1 Spent solvent	1		0.40	
2	01.2 Acid, alkaline or saline wastes	0		102.30	
3	01.2 Acid, alkaline or saline wastes	1		1227.00	
4	01.3 Used oils	1		562.98	181.47
5	01.4, 02, 03.1 Spent chemical catalysts	0	25.12	11 809.49	989.31
6	01.4, 02, 03.1 Spent chemical catalysts	1	0.53	3040.95	6.40
7	03.2 Industrial effluent sludge	0	534.56	538.73	5.00
8	03.2 Industrial effluent sludge	1	9.00	0.15	
9	03.3 Sludge and liquid wastes from waste treatment	0			
10	03.3 Sludge and liquid wastes from waste treatment	1		0.15	
11	05 Health care and biological wastes	0			

12	<b>05</b>	Health care and biological wastes	1			
13	<b>06.1</b>	Metal wastes, ferrous	0	400.00	2 227.54	765.00
14	<b>06.2</b>	Metal wastes, non-ferrous	0		57.74	3.00
15	<b>06.3</b>	Metal wastes, mixed ferrous and non-ferrous	0		100.74	3.10
16	<b>07.1</b>	Glass wastes	0		541.35	10.80
17	<b>07.1</b>	Glass wastes	1			
18	<b>07.2</b>	Paper and cardboard wastes	0	1.50	571.80	42.94
19	<b>07.3</b>	Rubber wastes	0	16.24	15.54	4.90
20	<b>07.4</b>	Plastic wastes	0	1.00	78.27	31.80
21	<b>07.5</b>	Wood wastes	0	2.50	11 967.29	5.35
22	<b>07.5</b>	Wood wastes	1			
23	<b>07.6</b>	Textile wastes	0		7.45	
24	<b>07.7</b>	Waste containing PCB	1		0.80	
25	<b>08</b> <b>(EXCL.08.1</b> <b>, 08.41)</b>	Discarded equipment (excluding discarded vehicles, batteries and accumulators)	0			
26	<b>08 (EXCL.</b> <b>08.1,</b> <b>08.41)</b>	Discarded equipment (excluding discarded vehicles, batteries and accumulators)	1	0.70	0.10	0.01
27	<b>08.1</b>	Discarded vehicles	0			
28	<b>08.1</b>	Discarded vehicles	1			
29	<b>08.41</b>	Batteries and accumulators wastes	0	3.14	38.87	0.46
30	<b>08.41</b>	Batteries and accumulators wastes	1			
31	<b>09.1</b>	Animal and mixed food waste	0		13 123.00	600.00
32	<b>09.2</b>	Vegetal wastes	0		222.05	17 550.00
33	<b>09.3</b>	Slurry and manure	0			48.00
34	<b>10.1</b>	Household and similar wastes	0	55.00	605.00	186.00
35	<b>10.2</b>	Mixed and undifferentiated materials	0	10.00	4 910.70	40.00
36	<b>10.2</b>	Mixed and undifferentiated materials	1			
37	<b>10.3</b>	Sorting residues	0			
38	<b>10.3</b>	Sorting residues	1		35.40	
39	<b>11</b>	Common sludge	0		1.00	
40	<b>12.1</b>	Construction and demolition wastes	0		19.24	
41	<b>12.1</b>	Construction and demolition wastes	1			
42	<b>12.2, 12.3,</b> <b>12.5</b>	Other mineral wastes	0			
43	<b>12.2, 12.3,</b> <b>12.5</b>	Other mineral wastes	1	731.17	7 538.90	
44	<b>12.4</b>	Combustion wastes	0		850.02	475 100.00
45	<b>12.4</b>	Combustion wastes	1		76.86	
46	<b>12.6</b>	Soils	0			
47	<b>12.6</b>	Soils	1			
48	<b>12.7</b>	Dredging spoil	0			
49	<b>12.7</b>	Dredging spoil	1			
50	<b>12.8, 13</b>	Waste from waste treatment, solidified, stabilised or vitrified waste	0			
51	<b>12.8, 13</b>	Waste from waste treatment, solidified, stabilised or vitrified waste	1			

---

TOTAL	<b>1 790.46</b>	<b>60 271.81</b>	<b>495 573.54</b>
-------	-----------------	------------------	-------------------

1) 1-Hazardous waste, 0-Non-hazardous waste

## METHODOLOGICAL NOTES

The data on industrial waste in 2011 were collected by statistical surveys *Annual Report on Industrial Waste*. The survey used the reporting method, and the geographical aspects covered are business entities that carry out its production activities in the whole territory of Montenegro. The report includes all businesses with 5 or more employees whose primary activity is defined in the mining sector, manufacturing, and electricity, gas and steam supply, i.e. areas 05-35 of the Classification of Activities 2010.

For the data used was of waste catalogue (Official Gazette of Montenegro 68/09 and 86/09) which is compliant the European List of Wastes (LOW), and contains more than 800 types of waste systematized according to their characteristics and place of origin in 20 groups.

Of these 20 groups, the most is based on activities in which waste is generated, while some groups are based on materials and processes.

The waste is defined by a code of 6 digits, where the first two digits are a group of other two sub-groups of waste. Hazardous waste in the Waste Catalogue is marked with \*.

**The Waste Catalogue** is a list of the properties and place of origin, classified into groups, subgroups and types of waste from industries whose products are producing the waste.

**Waste** is any substance or subject that the holder discarded or intends to discard it in compliance with the Law (Law on Waste Management, Official Gazette of Montenegro 64/11 as of 29 November 2011).

**The waste producer** is the original waste producer or any person who performs the pre-treatment, mixing or other processes that change the quality or composition of waste.

**Industrial waste** is the waste generated in production processes in industry and handicrafts, and differs from municipal waste in their composition and characteristics.

**Hazardous waste** is the waste containing elements or compounds that have one or more of the following hazardous properties: explosiveness, reactivity, flammability, irritability, harmfulness, toxicity, infectivity, carcinogenicity, corrosiveness, mutagenicity, teratogenicity, eco-toxicity, etching property and property release toxic gases by chemical or biological reaction and sensitivity/irritability, as well as waste from which, after a delay may occur another substance containing some of hazardous characteristics.

**Non-hazardous waste** is the waste that by composition and characteristics does not possess some of characteristics of hazardous waste.

Published and printed by Statistical Office of Montenegro (MONSTAT)  
81000 Podgorica, IV Proleterske 2, Phone (+382) 20 230 811, Fax (+382) 20 230 814

*The release prepared by:*

**Ms Natasa VUCKOVIC, MSc**

Tel. +382 20 231 004  
[contact@monstat.org](mailto:contact@monstat.org)