



Prejemnik:	JS
Datum:	18. 12. 2024
Številka:	

REPORT ON SAMPLE INVESTIGATION

for the company:

KOSTAK d.d.

Waste number:

19 12 12

**Other wastes (including mixtures of materials) from
mechanical treatment of wastes other than those
mentioned in 19 12 11**

LF-B

Title: REPORT ON SAMPLE INVESTIGATION ON BEHALF OF
KOSTAK d.d., FOR WASTE CLASSIFICATION NO. 19 12
12 (LF-B)

Contractor: NATIONAL LABORATORY OF HEALTH, ENVIRONMENT AND FOOD
ENVIRONMENT AND HEALTH CENTRE
DEPARTMENT OF GROUNDWATER AND SURFACE WATER,
WASTE AND SOIL
PRVOMAJSKA ULICA 1
2000 MARIBOR

Client: KOSTAK d.d.
LESKOVŠKA CESTA 2a
SI-8270 KRŠKO

Order no: 106025

Order no. (contracting auth.): PG-2300-22/19471-22; 569-0280/2022

Date of contract: 27.12.2022

Place and date of the report: Celje, 02.12.2024

Report number: 2830-22/106025-24/117652-24/230SRF

Inspection and sampling: Peter PAVLINEC, sanitary engineer

Task holder: Peter PAVLINEC, sanitary engineer

Assessor: Peter PAVLINEC, sanitary engineer
Waste and soil department with laboratory



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1 Introduction

On the basis of the order from Kostak d.d., we carried out a confirmation of the waste number with an analysis pursuant to the Decree on wastes (Official Journal of the RS, No. 77/22 and 113/23). For the purposes of confirming the waste number, we performed the research on hazardous properties in the waste from HP 1 to HP 15.

2 Sampling method

Sampling was carried out in accordance with the modified SIST EN ISO 21645: 2021 and SIST EN 14899:2006 and the technical regulations CEN/TR 15310-1 to -5. A record of the sampling is contained in the Annex.

3 Data on the waste holder, type and source of the waste

3.1 Waste holder: Kostak d.d.

Address: Leskovška cesta 2a

Post code: SI-8270 Krško

Registration number: 516572000

3.2 Waste number: 19 12 12

Waste name: Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11

3.3 Description of waste:

The waste represents dry and non-homogeneous (heterogeneous) material with particles of various sizes (0-300 mm), of different colors, with a weak specific smell (like communal waste).

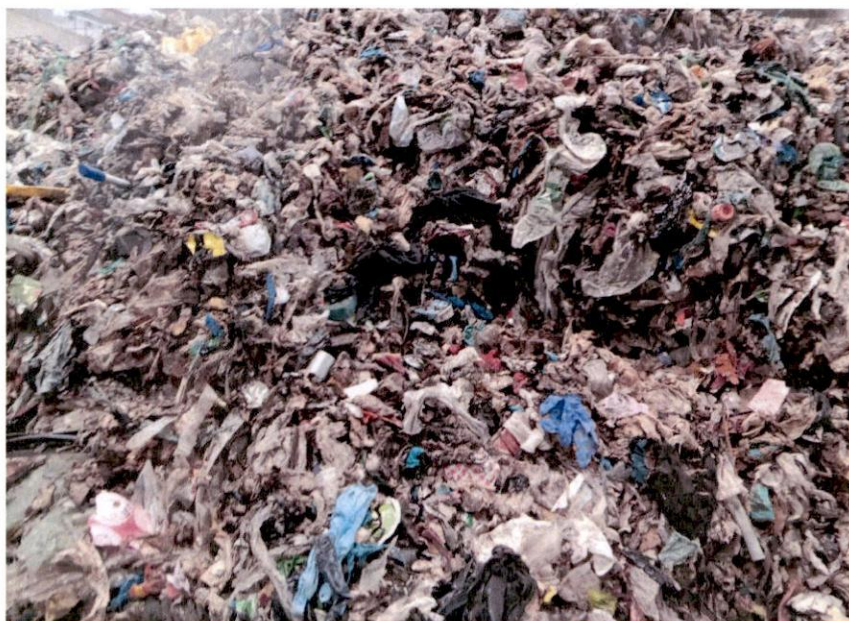
Waste composition is:

- 43% plastic (plastic foil, solid plastic particles),
- 27 % textile (textile fibres, cloth),
- 25% paper,
- 2% styrofoam,
- 1% wires,
- 1% dust,
- <1% wood (crushed wooden particles).

Other properties are in analytical reports in annex of this assessment.



Picture 1: Photo of the waste



Picture 2: Photo of the waste

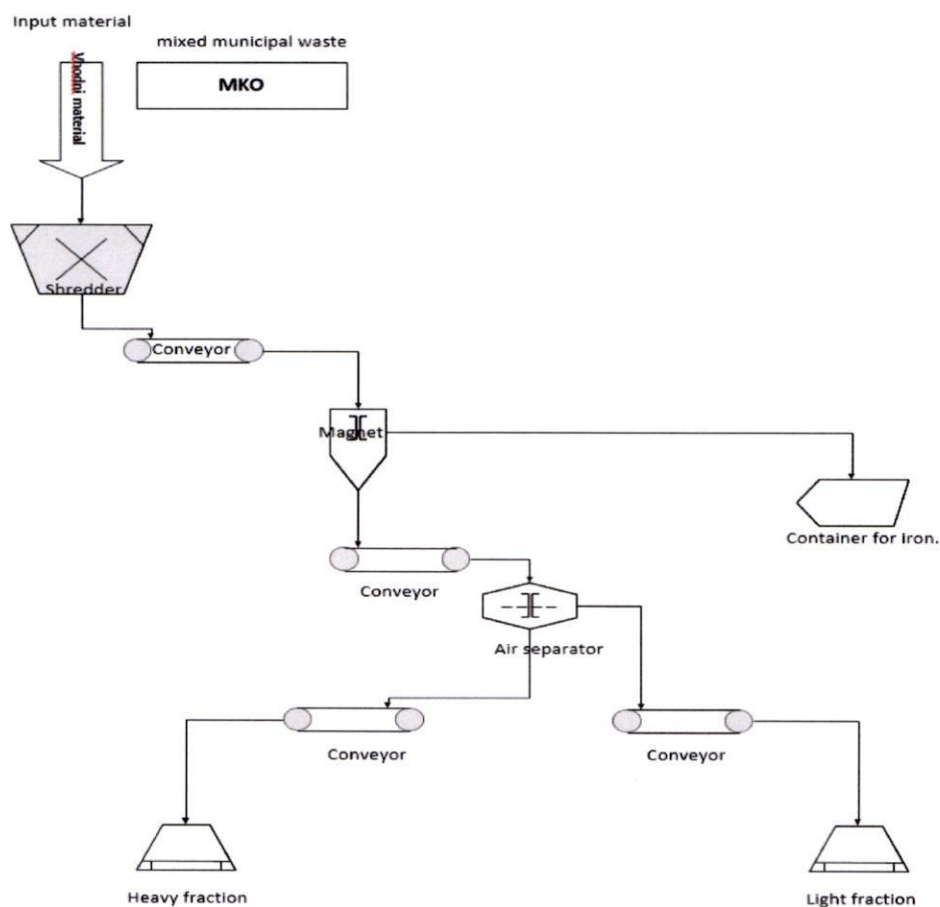
3.4 Address of the facility that represents the source or location of the waste:

Generator: Kostak d.d.
Address: Spodnji Stari grad
Post code: SI-8270 Krško

3.5 Description of waste generation:

The combustible waste with code number 19 12 12 is produced as combustible product as LF-B regarding their caloric value in the process of mechanical treatment of the mixed municipal waste with code number 20 03 01 in Kostak d.d., Spodnji Stari grad installation.

Mixed municipal waste (with code number 20 03 01) is first processed through a coarse shredder (0-400 mm), where it is shredded and conveyed via a transport belt under a magnetic separator. The magnetic separator removes metals from the material. The extracted metals are sent to a separate storage area designated for metals. The remaining material is then conveyed via the transport belt to an air separator, where the heavy and light fractions are separated. The heavy fraction (including stones, wood, footwear, etc.) is stored in a designated storage box and is prepared for disposal. The light fraction, which is the subject of this notification, is stored separately in a dedicated box. Prior to transportation, the light fraction is compacted into round bales using the Flexus Bala System (the baling unit is an independent device, separate from the processing line).



Picture 3: scheme

3.5.1 Annual quantity of waste: 15,000 tonnes

3.5.2 Quantity of waste analysed: 180 m³

3.5.3 Test reports: 2830-22/106025-24/117651; 2830-22/106025-24/117652.

4 Waste properties

4.1 State of waste and other special properties

4.1.1 State of waste at room temperature:

- | | | | |
|--|---|---|---|
| <input type="checkbox"/> Liquid | <input type="checkbox"/> Homogeneous | <input type="checkbox"/> Powder-like | <input checked="" type="checkbox"/> Dry |
| <input type="checkbox"/> Dense liquid/paste-like | <input checked="" type="checkbox"/> Non-homogeneous | <input checked="" type="checkbox"/> Grained/bulky | <input type="checkbox"/> Moist |
| <input type="checkbox"/> Sludgy | <input type="checkbox"/> Dispersion | <input type="checkbox"/> In a Lump | <input type="checkbox"/> Hygroscopic |
| <input checked="" type="checkbox"/> Solid | <input type="checkbox"/> Emulsion | <input type="checkbox"/> Wrapped | |

4.1.2 Hazardous properties (HP1–HP15)*:

☐ Yes ☒ No

* Properties based on which waste is classified as hazardous (in accordance with waste legislation).

- | | | | |
|------------------------------|------------------------------|-------------------------------|-------------------------------|
| <input type="checkbox"/> HP1 | <input type="checkbox"/> HP5 | <input type="checkbox"/> HP9 | <input type="checkbox"/> HP13 |
| <input type="checkbox"/> HP2 | <input type="checkbox"/> HP6 | <input type="checkbox"/> HP10 | <input type="checkbox"/> HP14 |
| <input type="checkbox"/> HP3 | <input type="checkbox"/> HP7 | <input type="checkbox"/> HP11 | <input type="checkbox"/> HP15 |
| <input type="checkbox"/> HP4 | <input type="checkbox"/> HP8 | <input type="checkbox"/> HP12 | |

4.1.3 Colour: various

Odour: ☐ strong ☒ faint ☐ none ☒ Smells like: weak specific smell (like communal waste).

4.1.4 Reactivity:

- | | | |
|--|---|---|
| <input type="checkbox"/> inert | <input type="checkbox"/> reacts with acid/lye | <input type="checkbox"/> incombustible |
| <input type="checkbox"/> reacts with air | <input type="checkbox"/> accelerates combustion | <input type="checkbox"/> biodegradable |
| <input type="checkbox"/> reacts with water | <input type="checkbox"/> gas forming | <input checked="" type="checkbox"/> combustible |

4.1.5 Solubility in water or other solvents:

☐ Yes ☒ No

Justification:

Waste is very poorly soluble in water. Solubility in other solvents is also highly unlikely due to waste composition.

4.1.6 Physical properties:

Density at room temperature: 156 g/l
Range of particle/piece size: 0-300 mm

4.1.7 Description of the preliminary processing of waste or the justification for the omission of preliminary waste processing:

Justification:

Waste treatment procedure is described under item 3.5

4.2 Safety precautions:**4.2.1 Handling in temporary storage:**Technical safety precautions: Store indoors in closed containers.Personal protective equipment: Personal means of protection (clothing, gloves, footwear).Fire and explosion safety: Waste is flammable but will not self-ignite.Water pollution protection: Prevent contact with water and mechanically remove material in case of scattering.**4.2.2 Accident and fire prevention:**Measures in case of scattering: Mechanically collect to containers using appropriate tools.Appropriate extinguishing agent: All extinguishing agents are suitable.Non-appropriate extinguishing agent: /Appropriate binding agents: /**4.2.3 Additional safety precaution considering management of waste:**

No additional safety precautions are required.
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5 Grounds for the determination of waste number

The waste is classified into groups according to the list of waste as defined in Article 4 of the Decree

The waste is classified into groups according to the list of waste as defined in Article 4 of the Decree on waste Official Journal RS No. 77/22 and 113/23.

Individual waste, given the nature of the occurrence, is to be classified in the group and sub-group of waste according to the waste list, as provided in Article 4 of the Decree on waste (Official Journal RS No. 77/22 and 113/23), so that the waste is assigned with number of waste. If the waste under Article 5 of the Decree on waste (Official Journal RS No. 77/22 and 113/23) can be classified as hazardous or non-hazardous waste, it should be classified as hazardous waste unless the data on the composition of the waste and the concentration of hazardous substances or on the basis of its analysis shows to have none of the hazardous properties. Waste not showing hazardous properties as the composition does not contain any hazardous substances. The study of the hazardous properties is attached to this assessment.

According to the source and composition, the waste in question has been classified based on the list contained in Decree on waste (Official Journal RS No. 77/22 and 113/23) into waste group:

- | | |
|----------|---|
| 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 |
| 19 12 | Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, palletising) not otherwise specified |
| 19 12 12 | Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11. |

6 CROSS-BORDER SHIPMENT OF WASTE

Cross-border shipments of waste are defined and regulated by the Regulation on the implementation of Regulation (EC) No 1013/2006 on shipments of waste (Official Journal of the Republic of Slovenia, No 94/21) in connection with Regulation (ES) No. 1013/2006.

The Regulation brings together the lists of wastes derived from the Basel Convention on the Control of Cross-border Movements of Hazardous Wastes and their Disposal and the OECD Decision on the Control of cross-border Movements of Wastes.

The waste is suitable for incineration and cross-border movement.

7 Analytical report

Parameter Waste analyses	Unit	2024 Sample numb. (24/117652)	2025	Minimum value of results	Maximum value of results	Average value of results
Sb	mg/kg d.m.	4,2	-	-	-	-
As	mg/kg d.m.	<1,0	-	-	-	-
Cu	mg/kg d.m.	54	-	-	-	-
Zn	mg/kg d.m.	100	-	-	-	-
Cd	mg/kg d.m.	<0,3	-	-	-	-
Co	mg/kg d.m.	2,6	-	-	-	-
Cr	mg/kg d.m.	24	-	-	-	-
Mn	mg/kg d.m.	100	-	-	-	-
Ni	mg/kg d.m.	14	-	-	-	-
Pb	mg/kg d.m.	13	-	-	-	-
Tl	mg/kg d.m.	<0,16	-	-	-	-
V	mg/kg d.m.	4,1	-	-	-	-
Ammonium	mg/kg d.m.	1100	-	-	-	-
Hg	mg/kg d.m.	0,17	-	-	-	-
PCB -sum	mg/kg d.m.	0,022	-	-	-	-
PCB-28	mg/kg d.m.	0,015	-	-	-	-
PCB-52	mg/kg d.m.	0,006	-	-	-	-
PCB-101	mg/kg d.m.	<0,003	-	-	-	-
PCB-138	mg/kg d.m.	<0,001	-	-	-	-
PCB-118	mg/kg d.m.	0,001	-	-	-	-
PCB-153	mg/kg d.m.	<0,002	-	-	-	-
PCB-180	mg/kg d.m.	<0,001	-	-	-	-
PAH (Polycyclic aromatic hydrocarbons)-sum	mg/kg d.m.	2,6	-	-	-	-
Naphthalene	mg/kg d.m.	0,16	-	-	-	-
Acenaphthylene	mg/kg d.m.	<0,10	-	-	-	-
Acenaphthene	mg/kg d.m.	<0,10	-	-	-	-
Fluorene	mg/kg d.m.	<0,10	-	-	-	-
Phenanthrene	mg/kg d.m.	0,58	-	-	-	-
Anthracene	mg/kg d.m.	<0,10	-	-	-	-
Fluoranthene	mg/kg d.m.	0,67	-	-	-	-
Pyrene	mg/kg d.m.	0,56	-	-	-	-
Benzo(b)fluoranthene	mg/kg d.m.	0,12	-	-	-	-
Benzo(a)anthracene	mg/kg d.m.	0,18	-	-	-	-
Benzo(k)fluoranthene	mg/kg d.m.	0,14	-	-	-	-
Chrysene	mg/kg d.m.	0,21	-	-	-	-
Benzo(a)pyrene	mg/kg d.m.	<0,10	-	-	-	-
Benzo(ghi)perylene	mg/kg d.m.	<0,10	-	-	-	-
Dibenzo(a,h)anthracene	mg/kg d.m.	<0,10	-	-	-	-
Phenol index	mg/kg d.m.	9,1	-	-	-	-
AOX	mg/kg d.m.	200	-	-	-	-

Parameter Waste analyses	Unit	2024 Sample numb. (24/117652)	2025	Minimum value of results	Maximum value of results	Average value of results
Cyanide - total	mg/kg d.m.	<1,5	-	-	-	-
Cyanide – free	mg/kg d.m.	<1,5	-	-	-	-
Sulfide easily released	mg/kg d.m.	<5,0	-	-	-	-
TOC	% d.m.	35	-	-	-	-
Loss on ignition	% d.m.	85,5	-	-	-	-
Total nitrogen	mg/kg d.m.	7440	-	-	-	-
LKCH (highly volatile halogenated hydrocarbons)	mg/kg d.m.	<7,0	-	-	-	-
Trichloromethane	mg/kg d.m.	<2,4	-	-	-	-
Tribromomethane	mg/kg d.m.	<14	-	-	-	-
Cis-1,2-Dichloroethene	mg/kg d.m.	<4,0	-	-	-	-
Dichloromethane	mg/kg d.m.	<5,3	-	-	-	-
1,2 Dichloroethane	mg/kg d.m.	<7,0	-	-	-	-
Trichloroethene	mg/kg d.m.	<2,8	-	-	-	-
1,2 Dichloroethylene	mg/kg d.m.	<4,0	-	-	-	-
1,1,1,2-Tetrachloroethane	mg/kg d.m.	<4,9	-	-	-	-
1,1,1 Trichloroethane	mg/kg d.m.	<2,1	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg d.m.	<5,1	-	-	-	-
1,1,2 Trichloroethane	mg/kg d.m.	<7,0	-	-	-	-
1,1 Dichloroethane	mg/kg d.m.	<2,8	-	-	-	-
1,1 Dichloroethene	mg/kg d.m.	<2,0	-	-	-	-
Tetrachloroethene	mg/kg d.m.	<1,9	-	-	-	-
Trans-1,2 Dichloroethene	mg/kg d.m.	<2,5	-	-	-	-
Fluoride	mg/kg d.m.	87	-	-	-	-
Hydrocarbon oil index	mg/kg d.m.	3600	-	-	-	-
BTX (Volatile aromatic hydrocarbons)	mg/kg d.m.	<1,1	-	-	-	-
Benzene	mg/kg d.m.	<1,1	-	-	-	-
Toluene	mg/kg d.m.	<1,0	-	-	-	-
Xylene (sum of -o,-m,	mg/kg d.m.	<1,1	-	-	-	-
Ethylbenzene	mg/kg d.m.	<0,7	-	-	-	-
Styrene	mg/kg d.m.	<1,2	-	-	-	-
Se	mg/kg d.m.	0,62	-	-	-	-
Mo	mg/kg d.m.	1,9	-	-	-	-
Fe	mg/kg d.m.	2100	-	-	-	-
Sn	mg/kg d.m.	3,1	-	-	-	-
Ba	mg/kg d.m.	53	-	-	-	-
Te	mg/kg d.m.	<0,16	-	-	-	-
Ti	mg/kg d.m.	440	-	-	-	-
Be	mg/kg d.m.	<0,23	-	-	-	-
B	mg/kg d.m.	<67	-	-	-	-
Dry matter	%	81,7	-	-	-	-

Parameter (Solid alternative fuel analysis)	Unit	2024 Sample numb. (24/117651)	2025	Minimum value of results	Maximum value of results	Average value of results
Water content	%	21,4 %	-	-	-	-
Caloric value	GJ/t	12,72	-	-	-	-
Caloric value	GJ/t d.m.	15,57	-	-	-	-
Particle size	Mm	<300mm	-	-	-	-
Ash content	%	12,7	-	-	-	-
Ash content	% d.m.	15,9	-	-	-	-
Moisture	%	20,2	-	-	-	-
Cl	%	0,20	-	-	-	-
Cl	% d.m.	0,25	-	-	-	-
S	%	0,10	-	-	-	-
S	% d.m.	0,13	-	-	-	-
Fluorine	%	<0,003	-	-	-	-
Fluorine	% d.m.	0,0034	-	-	-	-
Bromine	%	<0,01	-	-	-	-
Bromine	% d.m.	<0,01	-	-	-	-
Hydrogen	%	5,09	-	-	-	-
Hydrogen	% d.m.	6,24	-	-	-	-
Total phosphorus	%	0,15	-	-	-	-
Hg	mg/kg	<0,15	-	-	-	-
TI	mg/kg	<0,16	-	-	-	-
Cd	mg/kg	<0,3	-	-	-	-
Cr	mg/kg	20	-	-	-	-
Zn	mg/kg	83	-	-	-	-
Sb	mg/kg	3,5	-	-	-	-
As	mg/kg	<1,0	-	-	-	-
Pb	mg/kg	10	-	-	-	-
Co	mg/kg	2,1	-	-	-	-
Cu	mg/kg	44	-	-	-	-
Mn	mg/kg	82	-	-	-	-
Ni	mg/kg	12	-	-	-	-
V	mg/kg	<3,9	-	-	-	-
Hg	mg/kg d.m.	0,17	-	-	-	-
TI	mg/kg d.m.	<0,16	-	-	-	-
Cd	mg/kg d.m.	<0,3	-	-	-	-
Cr	mg/kg d.m.	24	-	-	-	-
Zn	mg/kg d.m.	100	-	-	-	-
Sb	mg/kg d.m.	4,2	-	-	-	-
As	mg/kg d.m.	<1,0	-	-	-	-
Pb	mg/kg d.m.	13	-	-	-	-
Co	mg/kg d.m.	2,6	-	-	-	-

Parameter (Solid alternative fuel analysis)	Unit	2024 Sample numb. (24/117651)	2025	Minimum value of results	Maximum value of results	Average value of results
Cu	mg/kg d.m.	54	-	-	-	-
Mn	mg/kg d.m.	100	-	-	-	-
Ni	mg/kg d.m.	14	-	-	-	-
V	mg/kg d.m.	4,1	-	-	-	-

Parameter leachate analyses	Unit	2024 Sample numb. (24/117652)	2025	Minimum Value of results	Maximum Value of results	Average Value of results
Al	mg/L	0,24	-	-	-	-
Sb	mg/L	0,0058	-	-	-	-
As	mg/L	0,0039	-	-	-	-
Cu	mg/L	0,014	-	-	-	-
Ba	mg/L	0,61	-	-	-	-
Be	mg/L	<0,0005	-	-	-	-
B	mg/L	0,41	-	-	-	-
Zn	mg/L	0,38	-	-	-	-
Cd	mg/L	<0.0005	-	-	-	-
Co	mg/L	0,0095	-	-	-	-
Sn	mg/L	<0,002	-	-	-	-
Cr	mg/L	0,031	-	-	-	-
Mn	mg/L	0,91	-	-	-	-
Ni	mg/L	0,035	-	-	-	-
Se	mg/L	<0,001	-	-	-	-
Ag	mg/L	<0,001	-	-	-	-
Pb	mg/L	0,0066	-	-	-	-
Tl	mg/L	<0,0050	-	-	-	-
Te	mg/L	<0,0050	-	-	-	-
V	mg/L	0,0038	-	-	-	-
Hg	mg/L	<0,0001	-	-	-	-
Mo	mg/L	0,018	-	-	-	-
Fe	mg/L	2,1	-	-	-	-
Cyanide - total	mg/L	<0,01	-	-	-	-
Cyanide – free	mg/L	<0,02	-	-	-	-
Ammonium	mg/L	38	-	-	-	-
Total bound Nitrogen	mg/L	100	-	-	-	-
Phenol index	mg/L	0,41	-	-	-	-
Nitrite (NO2)	mg/L	<0,1	-	-	-	-
F (fluoride)	mg/L	0,23	-	-	-	-
Cl (chloride)	mg/L	106	-	-	-	-

Parameter leachate analyses	Unit	2024 Sample numb. (24/117652)	2025	Minimum Value of results	Maximum Value of results	Average Value of results
Cl (chloride)	mg/kg d.m.	1060	-	-	-	-
AOX	mg/L	0,11	-	-	-	-
Dissolved organic carbon (DOC)	mg/kg d.m.	8380	-	-	-	-
Total dissolved solids (celotne raztopljene snovi)	mg/L	2730	-	-	-	-
pH	-	7,3	-	-	-	-
Temperature	°C	22,5	-	-	-	-
Electrical conductivity	µS	2310	-	-	-	-

8 Annex

ANNEX 1: Report on the study of hazardous waste properties;

ANNEX 2: Report of chemical analyses:

- Task reports, Evidence code: 2830-22/106025-24/117651; 2830-22/106025-24/117652.

ANNEX 1: Report on the study of hazardous waste properties (according to the criteria from Annex 3 of the Waste Regulation (Official Journal RS No. 77/22 and 113/23).

Note: Hazard class and hazard category symbols and symbols for hazard statements for waste components for the classification of waste used in Annex III of Directive 2008/98/EC are summarized according to Regulation (EC) no. 1272/2008 of the European Parliament and the Council of 16 December 2008 on the classification, labelling and packaging of substances and mixtures, on the amendment and repeal of Directives 67/548/EEC and 1999/45/EC and the amendment of Regulation (EC) no. 1907/2006 (OJ L No. 353, 31/12/2008, p. 1), last amended by Commission Delegated Regulation (EU) 2021/1962 of 12 August 2021 amending Annex VI to Regulation (EC) No. 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures (OJ L No. 400, 12 November 2021, p. 16), (hereinafter: Regulation (EC) No. 1272/2008).

Property: HP1 »Explosive«

Has HP 1

☐ Yes ☒ No

Description: Waste which is capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings. Pyrotechnic waste, explosive organic peroxide waste and explosive self-reactive waste is included..

Determination: When a waste contains one or more substances classified by one of the hazard class and category codes and hazard statement codes shown in Table 1, the waste shall be assessed for HP 1, where appropriate and proportionate, according to test methods. If the presence of a substance, a mixture or an article indicates that the waste is explosive, it shall be classified as hazardous by HP 1.

Table 1: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents for the classification of wastes as hazardous by HP 1:

Hazard Class and Category Code(s)	Hazard statements Code(s)
Unst. Expl.	H 200
Ekspl. 1.1	H 201
Ekspl. 1.2	H 202
Ekspl. 1.3	H 203
Ekspl. 1.4	H 204
Self-react. A	H 240
Org. Perox. A	
Self-react. B	H 241
Org. Perox. B	

Observations:

Based on a review of the waste generation technology, an examination of the incoming raw materials and the composition of the waste, we conclude that the waste in question does not contain any of the substances that could be classified with one of the hazard class labels and hazard statement labels shown in Table 1.

Property: HP2 »Oxidizing«**Has HP 2**☐ Yes ☒ No

Description: Waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials.

Determination: When a waste contains one or more substances classified by one of the hazard class and category codes and hazard statement codes shown in Table 2, the waste shall be assessed for HP 2, where appropriate and proportionate, according to test methods. If the presence of a substance indicates that the waste is oxidising, it shall be classified as hazardous by HP 2.

Table 2: Hazard Class and Category Code(s) and Hazard statement Code(s) for the classification of wastes as hazardous by HP 2:

Hazard Class and Category Code(s)	Hazard statements Code(s)
Ox. Gas 1	H 270
Ox. Liq. 1	H 271
Ox. Sol. 1	
Ox. Liq. 2, Ox. Liq. 3	H 272
Ox. Sol. 2 Ox. Sol 3	

Observations:

Based on a review of the waste generation technology, an examination of the incoming raw materials and the composition of the waste, we conclude that the waste in question does not contain any of the substances that could be classified with one of the hazard class labels and hazard statement labels shown in Table 2.

Property: HP3 »Flammable«**Has HP 3**☐ Yes ☒ No**Description:**

- Flammable liquid waste – liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C;
- Flammable pyrophoric liquid and solid waste – solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;
- Flammable solid waste – solid waste which is readily combustible or may cause or contribute to fire through friction;
- Flammable gaseous waste – gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa;
- Water reactive waste – waste which, in contact with water, emits flammable gases in dangerous quantities;
- Other flammable waste – flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.

Determination: When a waste contains one or more substances classified by one of the following hazard class and category codes and hazard statement codes shown in Table 3, the waste shall be assessed, where appropriate and proportionate, according to test methods. If the presence of a substance indicates that the waste is flammable, it shall be classified as hazardous by HP 3.

Table 3: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents for the classification of wastes as hazardous by HP 3

Hazard Class and Category Code(s)	Hazard statements Code(s)
Flam. Gas 1	H220
Flam. Gas 2	H221
Aerosol 1	H222
Aerosol 2	H223
Flam. Liq. 1	H224
Flam. Liq. 2	H225
Flam. Liq. 3	H226
Flam. Sol.1	H228
Flam. Sol.2	
Self-react CD	H242
Self-react EF	
Org. Perox. 1 CD	
Org. Perox. 1 EF	
Pyr. Liq. 1	H250
Pyr. Sol. 1	
Self-heat. 1	H251

Self-heat. 2	H252
Water-react. 1	H 260
Water-react. 2	H 261
Water-react. 3	

Observations:

Based on a review of the waste generation technology, an examination of the incoming raw materials and the composition of the waste, we conclude that the waste in question does not contain any of the substances that could be classified with one of the hazard class labels and hazard statement labels shown in Table 3.

Property: HP4 »Irritant – skin irritation and eye damage«

Has HP 4 ☐ Yes ☒ No

Description: Waste which on application can cause skin irritation or damage to the eye.

Determination: When a waste contains one or more substances in concentrations above the cut-off value, that are classified by one of the following hazard class and category codes and hazard statement codes and one or more of the following concentration limits is exceeded or equalled, the waste shall be classified as hazardous by HP 4.

The cut-off value for consideration in an assessment for Skin corr. 1A (H314), Skin irrit. 2 (H315), Eye dam. 1 (H318) and Eye irrit. 2 (H319) is 1 %

If the sum of the concentrations of all substances classified as Skin corr. 1A (H314) exceeds or equals 1 %, the waste shall be classified as hazardous according to HP 4.

If the sum of the concentrations of all substances classified as H318 exceeds or equals 10 %, the waste shall be classified as hazardous according to HP 4.

If the sum of the concentrations of all substances classified H315 and H319 exceeds or equals 20 %, the waste shall be classified as hazardous according to HP 4.

Note that wastes containing substances classified as H314 (Skin corr.1A, 1B or 1C) in amounts greater than or equal to 5 % will be classified as hazardous by HP 8. HP 4 will not apply if the waste is classified as HP 8.

Observations:

Based on a review of the waste generation technology, an examination of the incoming raw materials and the composition of the waste, we conclude that the waste in question does not contain any of the substances that could be classified with one of the hazard class and category symbols and symbols for hazard sentences, or would exceed the limit value.

Property: HP5 »Specific Target Organ Toxicity (STOT) / Aspiration Toxicity«

Has HP 5 ☐ Yes ☒ No

Description: Waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.

Determination: When a waste contains one or more substances classified by one or more of the following hazard class and category codes and hazard statement codes shown in Table 4, and one or more of the concentration limits in Table 4 is exceeded or equalled, the waste shall be classified as hazardous according to HP 5. When substances classified as STOT are present in a waste, an individual substance has to be present at or above the concentration limit for the waste to be classified as hazardous by HP 5.

When a waste contains one or more substances classified as Asp. Tox. 1 and the sum of those substances exceeds or equals the concentration limit, the waste shall be classified as hazardous by HP 5 only where the overall kinematic viscosity (at 40 °C) does not exceed 20.5 mm²/s.

Table 4: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents and the corresponding concentration limits for the classification of wastes as hazardous by HP 5

Hazard Class and Category Code(s)	Hazard statements Code(s)	Concentration limit
STOT SE 1	H370	1 %
STOT SE 2	H371	10 %
STOT SE 3	H335	20 %
STOT RE 1	H372	1 %
STOT RE 2	H373	10 %
Asp. Tox. 1	H304	10 %

Observations:

Based on the review of the waste generation technology, the review of the incoming raw materials and the composition of the waste, we conclude that the waste in question does not contain any of the substances that could be classified with one of the hazard class labels and hazard statement labels shown in Table 4 and at the same time exceed the given limit value.

Property: HP6 »Acute Toxicity«**Has HP 6**☐ Yes ☒ No

Description: Waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.

Determination: If the sum of the concentrations of all substances contained in a waste, classified with an acute toxic hazard class and category code and hazard statement code given in Table 5, exceeds or equals the threshold given in that table, the waste shall be classified as hazardous by HP 6. When more than one substance classified as acute toxic is present in a waste, the sum of the concentrations is required only for substances within the same hazard category.

The following cut-off values shall apply for consideration in an assessment:

- For Acute Tox. 1, 2 or 3 (H300, H310, H330, H301, H311, H331): 0.1 %;
- For Acute Tox. 4 (H302, H312, H332): 1 %.

Table 5: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents and the corresponding concentration limits for the classification of wastes as hazardous by HP 6.

Hazard Class and Category Code(s)	Hazard statements Code(s)	Concentration limit
Acute Tox. 1 (Oral)	H300	0,1 %
Acute Tox. 2 (Oral)		0,25 %
Acute Tox. 3 (Oral)	H301	5 %
Acute Tox 4 (Oral)	H302	25 %
Acute Tox.1 (Dermal)	H310	0,25 %
Acute Tox.2 (Dermal)		2,5 %
Acute Tox. 3 (Dermal)	H311	15 %
Acute Tox 4 (Dermal)	H312	55 %
Acute Tox 1 (Inhal.)	H330	0,1 %
Acute Tox.2 (Inhal.)	H330	0,5 %
Acute Tox. 3 (Inhal.)	H331	3,5 %
Acute Tox. 4 (Inhal.)	H332	22,5 %

Observations:

Based on the review of the waste generation technology, the review of the incoming raw materials and the composition of the waste, we conclude that the waste in question does not contain any of the substances that could be classified with one of the hazard class labels and hazard statement labels shown in Table 5 and at the same time exceed the given limit value.

Property: HP7 – Carcinogenic**Has HP 7**☐ Yes ☒ No**Description:** Waste which induces cancer or increases its incidence.

Determination: When a waste contains a substance classified by one of the following hazard class and category codes and hazard statement codes and exceeds or equals one of the following concentration limits shown in Table 6, the waste shall be classified as hazardous by HP 7. When more than one substance classified as carcinogenic is present in a waste, an individual substance has to be present at or above the concentration limit for the waste to be classified as hazardous by HP 7.

Table 6: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents and the corresponding concentration limits for the classification of wastes as hazardous by HP 7:

Hazard Class and Category Code(s)	Hazard statements Code(s)	Concentration limit
Carc. 1A	H350	0,1 %
Carc. 1B		
Carc. 2	H351	1,0 %

Observations:

Based on a review of the waste generation technology, an examination of the incoming raw materials and the composition of the waste, we conclude that the waste in question does not contain any of the substances that could be classified with one of the hazard class labels and hazard statement labels shown in Table 6 and at the same time exceed the given limit value.

Property: HP8 »Corrosive«**Has HP 8**☐ Yes ☒ No**Description:** Waste which on application can cause skin corrosion.

Determination: When a waste contains one or more substances classified as Skin corr. 1A, 1B or 1C (H314) and the sum of their concentrations exceeds or equals 5 %, the waste shall be classified as hazardous by HP 8.

The cut-off value for consideration in an assessment for Skin corr. 1A, 1B, 1C (H314) is 1.0 %.

Observations:

Based on a review of the waste generation technology, an examination of the incoming raw materials and the composition of the waste, we conclude that the waste in question does not contain any of the substances that could be classified with one of the above-mentioned hazard class labels and labels for hazard statements and at the same time exceed the given limit value.

Property: HP9 »Infectious«**Has HP 9**☐ Yes ☒ No

Description: Waste containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in man or other living organisms

Waste has HP9 if it contains:

- microorganisms dangerous to human health or
- Infectious material of animal origin.

Observations:

Based on a review of the waste generation technology, an examination of the incoming raw materials and the composition of the waste, we conclude that the waste in question does not contain any of the substances that could attribute HP 9 to the waste.

Property: HP10 »Toxic for reproduction«**Has HP 10**☐ Yes ☒ No

Description: Waste which has adverse effects on sexual function and fertility in adult males and females, as well as developmental toxicity in the offspring.

Determination: When a waste contains a substance classified by one of the following hazard class and category codes and hazard statement codes and exceeds or equals one of the following concentration limits shown in Table 7, the waste shall be classified hazardous according to HP 10. When more than one substance classified as toxic for reproduction is present in a waste, an individual substance has to be present at or above the concentration limit for the waste to be classified as hazardous by HP 10.

Table 7: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents and the corresponding concentration limits for the classification of wastes as hazardous by HP 10

Hazard Class and Category Code(s)	Hazard statements Code(s)	Concentration limit
Repr. 1A	H360	0,3 %
Repr. 1B		
Repr. 2	H361	3,0 %

Observations:

Based on a review of the waste generation technology, an examination of the incoming raw materials and the composition of the waste, we conclude that the waste in question does not contain any of the substances that could be classified with one of the labels for hazard statements and the labels for additional hazard statements shown in Table 7 and at the same time exceeded the limit value.

Property: HP11 »Mutagenic«**Has HP 11**☐ Yes ☒ No

Description: Waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell

Determination: When a waste contains a substance classified by one of the following hazard class and category codes and hazard statement codes and exceeds or equals one of the following concentration limits shown in Table 8, the waste shall be classified as hazardous according to HP 11. When more than one substance classified as mutagenic is present in a waste, an individual substance has to be present at or above the concentration limit for the waste to be classified as hazardous by HP 11.

Table 8: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents and the corresponding concentration limits for the classification of wastes as hazardous by HP 11:

Hazard Class and Category Code(s)	Hazard statements Code(s)	Concentration limit
Muta. 1A	H340	0,1 %
Muta. 1B		
Muta. 2	H341	1,0 %

Observations:

Based on a review of the waste generation technology, an examination of the incoming raw materials and the composition of the waste, we conclude that the waste in question does not contain any of the substances that could be classified with one of the labels for hazard statements and the labels for additional hazard statements shown in Table 8 and at the same time exceeded the limit value.

Property: HP12 »Release of an acute toxic gas«**Has HP 12**☐ Yes ☒ No

Description: Waste which releases acute toxic gases (Acute Tox. 1, 2 or 3) in contact with water or an acid.

Determination: When a waste contains a substance assigned to one of the following supplemental hazards EUH029, EUH031 and EUH032, it shall be classified as hazardous by HP 12 according to test methods or guidelines.

Observations:

Based on a review of the waste generation technology, an examination of the incoming raw materials and the composition of the waste, we conclude that the waste in question does not contain any of the substances to which one of the supplemental hazards EUH029, EUH031 or EUH032 would be assigned.

Property: HP13 »Sensitising«**Has HP 13**☐ Yes ☒ No

Description: Waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.

Determination: When a waste contains a substance classified as sensitising and is assigned to one of the hazard statement codes H317 or H334 and one individual substance equals or exceeds the concentration limit of 10 %, the waste shall be classified as hazardous by HP 13.

Observations:

Based on a review of the waste generation technology, an examination of the incoming raw materials and the composition of the waste, we conclude that the waste in question does not contain any of the substances that could be classified with one of the H317 or H334 hazard statements and at the same time exceed the concentration limit of 10% for individual substance.

Property: HP14 »Ecotoxic«**Has HP 14**☐ Yes ☒ No

Description: Waste which presents or may present immediate or delayed risks for one or more sectors of the environment.

Determination: Waste which fulfils any of the following conditions shall be classified as hazardous by HP 14:

– Waste which contains a substance classified as ozone depleting assigned the hazard statement code H420 in accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council (¹⁴) and the concentration of such a substance equals or exceeds the concentration limit of 0,1 %.

– $[c(H420) \geq 0,1 \text{ \%}]$;

– Waste which contains one or more substances classified as aquatic acute assigned the hazard statement code H400 in accordance with Regulation (EC) No 1272/2008 and the sum of the concentrations of those substances equals or exceeds the concentration limit of 25 %. A cut-off value of 0,1 % shall apply to such substances.

– $[\sum c(H400) \geq 25 \text{ \%}]$;

– Waste which contains one or more substances classified as aquatic chronic 1, 2 or 3 assigned to the hazard statement code(s) H410, H411 or H412 in accordance with Regulation (EC) No 1272/2008, and the sum of the concentrations of all substances classified as aquatic chronic 1 (H410) multiplied by 100 added to the sum of the concentrations of all substances classified as aquatic chronic 2 (H411) multiplied by 10 added to the sum of the concentrations of all substances classified as aquatic chronic 3 (H412) equals or exceeds the concentration limit of 25 %. A cut-off value of 0,1 % applies to substances classified as H410 and a cut-off value of 1 % applies to substances classified as H411 or H412.

– $[100 \times \sum c(H410) + 10 \times \sum c(H411) + \sum c(H412) \geq 25 \text{ \%}]$;

– Waste which contains one or more substances classified as aquatic chronic 1, 2, 3 or 4 assigned the hazard statement code(s) H410, H411, H412 or H413 in accordance with Regulation (EC) No 1272/2008, and the sum of the concentrations of all substances classified as aquatic chronic equals or exceeds the concentration

limit of 25 %. A cut-off value of 0,1 % applies to substances classified as H410 and a cut-off value of 1 % applies to substances classified as H411, H412 or H413.

$$- [\Sigma c \text{ H410} + \Sigma c \text{ H411} + \Sigma c \text{ H412} + \Sigma c \text{ H413} \geq 25 \text{ \%}]$$

Where: Σ = sum and c = concentrations of the substances.

Observations:

Based on a review of the technology of waste generation, review of incoming raw materials, composition of waste and review of the results of the performed analyses, we conclude that the waste in question does not contain any of the substances that meet and exceed the above-mentioned criteria.

Property: HP15 »Waste capable of exhibiting a hazardous property listed above not directly displayed by the original waste«

Has HP 15 ☐ Yes ☒ No

Determination: When a waste contains one or more substances assigned to one of the hazard statements or supplemental hazards shown in Table 9, the waste shall be classified as hazardous by HP 15, unless the waste is in such a form that it will not under any circumstance exhibit explosive or potentially explosive properties.

Table 9: Hazard statements and supplemental hazards for waste constituents for the classification of wastes as hazardous by HP 15:

Hazard Statement(s)/Supplemental Hazard(s)	
May mass explode in fire	H205
Explosive when dry	EUH001
May form explosive peroxides	EUH019
Risk of explosion if heated under confinement	EUH044

Observations:

Based on a review of the waste generation technology, an examination of the incoming raw materials and the composition of the waste, we conclude that the waste in question does not contain any of the substances that could be classified with one of the labels for hazard statements and labels for additional hazard statements shown in Table 9.

S T A T E M E N T

Based on the research of hazardous properties carried out and in accordance with Decree on wastes, Official Journal of the RS, No. 77/22 and 113/23, Council Directive (EU) No. 1357/2014 and Council Directive (EU) No. 1357/2014, we have established that the waste in question is classified as non-hazardous waste with the classification number 19 12 12. The waste does not contain hazardous properties.

Prepared by: Peter PAVLINEC, sanitary engineer





Task report

Kostak d.d. - other wastes (including mixtures of materials) 19 12 12 (LF-B)

Evidence code: 2830-22/106025-24/117651

Customer: KOSTAK, KOMUNALNO IN GRADBENO PODJETJE, D.D.
LESKOVŠKA CESTA 2 A
8270 Krško

Request: Pogodba številka: PG-2300-22/19471-22; 569-0280/2022, 106025, 27.12.2022

Contractor: Department for Groundwater and Surface Water, Waste and Soil
Department for Chemical Analysis of Food, Water and Other Environmental Samples
Kranj
Department for Chemical Analysis of Food, Water and Other Environmental Samples
Novo mesto

The power: MOP 35445-38/2022-2550-4

Head of task: Peter Pavlinec, dipl. san. inž.

Maribor, 02.12.2024

Department for Groundwater and Surface Water,
Waste and Soil
Head of task:

Peter Pavlinec, dipl. san. inž.

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Document authenticity check on: <http://www.nlzoh.si/istovetnost>.



Sample information

Sample: Kostak d.d. - other wastes (including mixtures of materials) 19 12 12 - LF-B (vezano na vzorec: 24/117652)

Sample number: 24/117651

Purpose: EOT - Investigations of Solid Fuel Samples

Customer: KOSTAK, KOMUNALNO IN GRADBENO PODJETJE, D.D., LESKOVŠKA CESTA 2 A, 8270 Krško

Sample taken by: Peter Pavlinec, NLZOH OPPVOT

Time of sampling: 06.11.2024 10:45

Place of sampling: Kostak d.d., Spodnji Stari Grad - stockfile of other wastes (including mixtures of materials) - 19 12 12 (LF-B)

Sample received by: Peter Pavlinec

Place and time of receiving: Celje, 06.11.2024 13:00

Report annexes:

Testing report with evidence code 2830-22/106025-24/117651-T

Report of chemical analyses with evidence code 1072-22/106025-24/117651-K



Evidence code: 2830-22/106025-24/117651-T

Testing report

Sample: Kostak d.d. - other wastes (including mixtures of materials) 19 12 12 - LF-B (vezano na vzorec: 24/117652)

Matrix: Trdna goriva

Sample number: 24/117651

Purpose: EOT - Investigations of Solid Fuel Samples

Title: Kostak d.d. - other wastes (including mixtures of materials) 19 12 12 (LF-B) 19 12 12 (LF-B)

Head of task: Peter Pavlinec, dipl. san. inž.

Customer: KOSTAK, KOMUNALNO IN GRADBENO PODJETJE, D.D., LESKOVŠKA CESTA 2 A, 8270 Krško

Request: Pogodba številka: PG-2300-22/19471-22; 569-0280/2022, 106025, 27.12.2022

Subject of sampling: Detailed information is given in the chapter Description of sampling.

Sampling plan: DN 221263, 06.11.2024

Place of sampling: Kostak d.d., Spodnji Stari Grad - stockfile of other wastes (including mixtures of materials) - 19 12 12 (LF-B)

Methodology of sampling: SIST EN 14899:2006 in SIST-TP CEN/TR 15310-1 do -5

Sample status: The sample complies with criteria for the reception

Sampling	Sample receiving	Issue date:	02.12.2024
Date and hour: 06.11.2024 10:45	Date and hour: 06.11.2024 13:00		
Taken by: Peter Pavlinec, NLZOH OPPVOT	Received by: Peter Pavlinec		

Picture or scheme of the location of sampling:



Evidence code: 2830-22/106025-24/117651-T

Kostak d.d., Spodnji Stari Grad - stockfile of other wastes (including mixtures of materials) - 19 12 12 (LF-B)



Sampling description:

Sample Number: 24/117651 (related to the sample: : 24/117652)

Sampling Date: 06.11.2024 at 10:45 AM

Sampling object (population): Pile (LF-B)- 19 12 12, approx. 180m³;

Sample description: The sample represents dry and non-homogeneous (heterogeneous) material with particles of various sizes (0-300 mm), of different colors, with a weak specific smell (like communal waste).

Sampling Location: Kostak d.d., Spodnji Stari grad, 8270 Krško;

Geographical coordinates of sampling location:

E: 541400 N: 88770

Sampling plan number: 106025

Sampling Method: Sampling was carried out in accordance with the modified SIST EN ISO 21645: 2021 and SIST EN 14899:2006 and the technical regulations CEN/TR 15310-1 to -5. The sample was taken from the pile using a dedicated sampling shovel. The collection of individual increments was carried out at different points of the pile and at different depths. A total of 48 increments were taken (minimum size of an increment was 0.5 L). After the sampling was completed, we combined the collected increments into a composite sample by thoroughly mixing and placing it into marked, dedicated sample packaging. The collected sample was stored in a cool and dark place, tightly closed until the sample was submitted to the chemical laboratory.

Sample Type: Composite sample (consisting of 48 increments)

Deviations from methods/instructions: No deviations;

Deviations from the sampling plan: No deviations;

Sample collection equipment: Dedicated waste sampling shovel; Agri Research Equipment 1 - green box; Agri Research Equipment 2 - grey box; Plastic transport container (red); Plastic container for assembling samples; Plastic wash bottle with cleaner (for field equipment); Plastic wash bottle with water; Field scale (for weighing samples in the field); shovels for waste sampling.

Preservation of samples: at set temperature and in the dark, and tightly closed;

Weather during sampling: Cloudy.



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CENTRE FOR ENVIRONMENT AND HEALTH

Evidence code: 2830-22/106025-24/117651-T

Head of task:
Peter Pavlinec, dipl. san. inž.

Electronically signed Peter Pavlinec, dipl. san. inž. at 02.12.2024 13:39

Results refer only to the sampled sample. The test report shall not be reproduced except in full without written approval of the department. It should not be used for advertising purposes. The sample was kept in accordance to the requirements until testing. All additional information on testing is available at the department.



Evidence code: 1072-22/106025-24/117651-K

Report of chemical analyses

Sample: Kostak d.d. - other wastes (including mixtures of materials) 19 12 12 - LF-B (vezano na vzorec: 24/117652)
Matrix: Trdna goriva
Sample number: 24/117651
Purpose: EOT - Investigations of Solid Fuel Samples
Title: Kostak d.d. - other wastes (including mixtures of materials) 19 12 12 (LF-B) 19 12 12 (LF-B)
Head of task: Peter Pavlinec, dipl. san. inž.
Customer: KOSTAK, KOMUNALNO IN GRADBENO PODJETJE, D.D., LESKOVŠKA CESTA 2 A, 8270 Krško
Request: /
Place of sampling: Kostak d.d., Spodnji Stari Grad - stockfile of other wastes (including mixtures of materials) - 19 12 12 (LF-B)
Sample status: The sample complies with criteria for the reception

Sampling **Sample receiving** **Issue date:** 02.12.2024
Date and hour: 06.11.2024 10:45 **Date and hour:** 06.11.2024 13:00
Taken by: Peter Pavlinec, NLZOH OPPVOT **Received by:** Peter Pavlinec

Analytic results

Results marked with # refer to not accredited activity

Parameter	Result Note	Unit	Expressed as/on	Method Place of execution	Start/End
Solid alternative fuel analysis					
Dry matter	81.7 #	%		SIST EN 15934:2012 - method A, NM	07.11.24 07.11.24
Water content	21.4 #	%		ND-OKANM-175, version 6, NM	26.11.24 26.11.24
Ash	15.9 #	%DW		SIST EN ISO 21656:2021, NM	12.11.24 13.11.24
Ash	12.7 #	%		SIST EN ISO 21656:2021, NM	12.11.24 13.11.24
Moisture	20.2 #	%		SIST EN ISO 21660-3:2021, NM	07.11.24 07.11.24
Net calorific value	12.72	MJ/kg		SIST-TS CEN/TS 16023:2014, KR	14.11.24 20.11.24
Net calorific value	15.57	MJ/kg DW		SIST-TS CEN/TS 16023:2014, KR	14.11.24 20.11.24
Chlorine	0.25	%DW		SIST EN 15408:2011, KR	14.11.24 20.11.24
Chlorine	0.20	%		SIST EN 15408:2011, KR	14.11.24 20.11.24
Antimony	4.2	mg/kg s.s.	Sb	SIST EN 15411, NM	19.11.24 19.11.24
Antimony	3.5	mg/kg		SIST EN 15411, NM	15.11.24 15.11.24
Arsenic	<1.0	mg/kg s.s.	As	SIST EN 15411, NM	19.11.24 19.11.24
Arsenic	<1.0	mg/kg		SIST EN 15411, NM	15.11.24 15.11.24



**NATIONAL LABORATORY OF
HEALTH, ENVIRONMENT AND FOOD**

CENTRE FOR CHEMICAL ANALYSIS OF FOOD,
WATER AND OTHER ENVIRONMENTAL SAMPLES

Evidence code: 1072-22/106025-24/117651-K

Analytic results

Results marked with # refer to not accredited activity

Parameter	Result Note	Unit	Expressed as/on	Method Place of execution	Start/End
Cadmium	<0.3	mg/kg s.s.	Cd	SIST EN 15411, NM	19.11.24 19.11.24
Cadmium	<0.3	mg/kg		SIST EN 15411, NM	15.11.24 15.11.24
Chromium	24	mg/kg s.s.	Cr	SIST EN 15411, NM	19.11.24 19.11.24
Chromium	20	mg/kg		SIST EN 15411, NM	15.11.24 15.11.24
Cobalt	2.6	mg/kg s.s.	Co	SIST EN 15411, NM	19.11.24 19.11.24
Cobalt	2.1	mg/kg		SIST EN 15411, NM	15.11.24 15.11.24
Copper	54	mg/kg s.s.	Cu	SIST EN 15411, NM	19.11.24 19.11.24
Copper	44	mg/kg		SIST EN 15411, NM	15.11.24 15.11.24
Lead	13	mg/kg s.s.	Pb	SIST EN 15411, NM	19.11.24 19.11.24
Lead	10	mg/kg		SIST EN 15411, NM	15.11.24 15.11.24
Manganese	100	mg/kg s.s.	Mn	SIST EN 15411, NM	19.11.24 19.11.24
Manganese	82	mg/kg		SIST EN 15411, NM	15.11.24 15.11.24
Mercury	0.17	mg/kg s.s.	Hg	SIST EN ISO 12846, modification in point 5, without chapter 7, NM	14.11.24 15.11.24
Nickel	14	mg/kg s.s.	Ni	SIST EN 15411, NM	19.11.24 19.11.24
Nickel	12	mg/kg		SIST EN 15411, NM	15.11.24 15.11.24
Thallium	<0.16	mg/kg s.s.	Tl	SIST EN 15411, NM	19.11.24 19.11.24
Thallium	<0.16	mg/kg		SIST EN 15411, NM	15.11.24 15.11.24
Vanadium	4.1	mg/kg s.s.	V	SIST EN 15411, NM	19.11.24 19.11.24
Vanadium	<3.9	mg/kg		SIST EN 15411, NM	15.11.24 15.11.24
Sum of heavy metals	220 #	mg/kg s.s.		SIST EN 15411, NM	19.11.24 19.11.24
Sulfur	0.13	%DW		SIST EN 15408:2011, KR	14.11.24 20.11.24
Sulfur	0.10	%		SIST EN 15408:2011, KR	14.11.24 20.11.24
Sulfur	1250	mg/kg s.s.		SIST EN 15408:2011, KR	14.11.24 20.11.24
Fluorine	<0.003	%		SIST EN 15408:2011, KR	14.11.24 20.11.24
Fluorine	0.0034	%DW		SIST EN 15408:2011, KR	14.11.24 20.11.24



**NATIONAL LABORATORY OF
HEALTH, ENVIRONMENT AND FOOD**

CENTRE FOR CHEMICAL ANALYSIS OF FOOD,
WATER AND OTHER ENVIRONMENTAL SAMPLES

Evidence code: 1072-22/106025-24/117651-K

Analytic results

Results marked with # refer to not accredited activity

Parameter	Result Note		Unit	Expressed as/on	Method Place of execution	Start/End
Bromine	<0.01	#	%DW		SIST EN 15408:2011, KR	14.11.24 20.11.24
Bromine	<0.01	#	%		SIST EN 15408:2011, KR	14.11.24 20.11.24
Hydrogen	6.24		%DW		SIST EN ISO 21663:2021, KR	19.11.24 19.11.24
Hydrogen	5.09		%		SIST EN ISO 21663:2021, KR	19.11.24 19.11.24
Zinc	83		mg/kg		SIST EN 15411, NM	15.11.24 15.11.24
Zinc	100		mg/kg s.s.	Zn	SIST EN 15411, NM	19.11.24 19.11.24
Total Phosphorus	0.15	#	%	P ₂ O ₅	SIST EN ISO 6878, point 4.7, modified, NM	14.11.24 14.11.24
Total Phosphorus	1450	#	mg/kg s.s.	P ₂ O ₅	SIST EN ISO 6878, point 4.7, modified, NM	14.11.24 14.11.24
Total Phosphorus	0.15	#	%DW	P ₂ O ₅	SIST EN ISO 6878, point 4.7, modified, NM	14.11.24 14.11.24
Elements						
Mercury	<0.15		mg/kg	Hg	SIST EN ISO 12846, modification in point 5, without chapter 7, NM	14.11.24 15.11.24
Sample preparation						
Dray matter from 40 °C to 105 °C	95.2	#	%		SIST EN 15934:2012 - method A, NM	11.11.24 11.11.24

Locations of analyses:

NM - OKA Novo mesto, Dalmatinova ulica 3, Novo mesto

KR - OKA Kranj, Gosposvetska ulica 12, Kranj

Measurement uncertainty data are available on the request of the client.

Electronically confirmed by:

mag. Andreja Dremelj, univ.dipl.kem.

OKA Kranj

Head of department:

Jernejka Franko, univ.dipl.inž.kem.inž.

Electronically signed by deputy Danica Marolt Krošič at 02.12.2024 13:30:04

Results refer only to the sampled sample. The test report shall not be reproduced except in full without written approval of the department. It should not be used for advertising purposes. The sample was kept in accordance to the requirements until testing. All additional information on testing is available at the department.



Task report

Kostak d.d. - other wastes (including mixtures of materials) 19 12 12 (LF-B)

Evidence code: 2830-22/106025-24/117652

Customer: KOSTAK, KOMUNALNO IN GRADBENO PODJETJE, D.D.
LESKOVŠKA CESTA 2 A
8270 Krško

Request: Pogodba številka: PG-2300-22/19471-22; 569-0280/2022, 106025, 27.12.2022

Contractor: Department for Groundwater and Surface Water, Waste and Soil
Department for Chemical Analysis of Food, Water and Other Environmental Samples
Novo mesto

The power: MOP 35445-38/2022-2550-4

Head of task: Peter Pavlinec, dipl. san. inž.

Maribor, 02.12.2024

Department for Groundwater and Surface Water,
Waste and Soil
Head of task:

Peter Pavlinec, dipl. san. inž.

The time of the certified signature and information about the certificate are shown at the top of the first page of the document.

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Document authenticity check on: <http://www.nlzoh.si/istovetnost>.



Sample information

Sample: Kostak d.d. - other wastes (including mixtures of materials) 19 12 12 - LF-B (vezano na vzorec: 24/117651)
Sample number: 24/117652
Purpose: EOT - Characterisation of Waste
Customer: KOSTAK, KOMUNALNO IN GRADBENO PODJETJE, D.D., LESKOVŠKA CESTA 2 A, 8270 Krško
Sample taken by: Peter Pavlinec, NLZOH OPPVOT
Time of sampling: 06.11.2024 10:45
Place of sampling: Kostak d.d., Spodnji Stari Grad - stockfile of other wastes (including mixtures of materials) - 19 12 12 (LF-B)
Sample received by: Peter Pavlinec
Place and time of receiving: Celje, 06.11.2024 13:00

Report annexes:

Testing report with evidence code 2830-22/106025-24/117652-T

Report of chemical analyses with evidence code 1072-22/106025-24/117652-K



Evidence code: 2830-22/106025-24/117652-T

Testing report

Sample: Kostak d.d. - other wastes (including mixtures of materials) 19 12 12 - LF-B (vezano na vzorec: 24/117651)

Matrix: Waste

Sample number: 24/117652

Purpose: EOT - Characterisation of Waste

Title: Kostak d.d. - other wastes (including mixtures of materials) 19 12 12 (LF-B) 19 12 12 (LF-B)

Head of task: Peter Pavlinec, dipl. san. inž.

Customer: KOSTAK, KOMUNALNO IN GRADBENO PODJETJE, D.D., LESKOVŠKA CESTA 2 A, 8270 Krško

Request: Pogodba številka: PG-2300-22/19471-22; 569-0280/2022, 106025, 27.12.2022

Subject of sampling: Detalid description is written in the chapter "Sampling procedure".

Sampling plan: DN 221263, 06.11.2024

Place of sampling: Kostak d.d., Spodnji Stari Grad - stockfile of other wastes (including mixtures of materials) - 19 12 12 (LF-B)

Methodology of sampling: SIST EN 14899:2006 in SIST-TP CEN/TR 15310-1 do -5

Sample status: The sample complies with criteria for the reception

Sampling	Sample receiving	Issue date:
Date and hour: 06.11.2024 10:45	Date and hour: 06.11.2024 13:00	02.12.2024
Taken by: Peter Pavlinec, NLZOH OPPVOT	Received by: Peter Pavlinec	

Picture or scheme of the location of sampling:



Kostak d.d., Spodnji Stari Grad - stockfile of other wastes (including mixtures of materials) - 19 12 12 (LF-B)



Sampling description:

Sample Number: 24/117652 (related to the sample: : 24/117651)

Sampling Date: 06.11.2024 at 10:45 AM

Sampling object (population): Pile (LF-B)- 19 12 12, approx. 180m³;

Sample description: The sample represents dry and non-homogeneous (heterogeneous) material with particles of various sizes (0-300 mm), of different colors, with a weak specific smell (like communal waste).

Sampling Location: Kostak d.d., Spodnji Stari grad, 8270 Krško;

Geographical coordinates of sampling location:

E: 541400 N: 88770

Sampling plan number: 106025

Sampling Method: Sampling was carried out in accordance with SIST EN 14899:2006 and the technical regulations CEN/TR 15310-1 to -5. The sample was taken from the pile using a dedicated sampling shovel. The collection of individual increments was carried out at different points of the pile and at different depths. A total of 48 increments were taken (minimum size of an increment was 0.5 L). After the sampling was completed, we combined the collected increments into a composite sample by thoroughly mixing and placing it into marked, dedicated sample packaging. The collected sample was stored in a cool and dark place, tightly closed until the sample was submitted to the chemical laboratory;

Sample Type: Composite sample (consisting of 48 increments)

Deviations from methods/instructions: No deviations;

Deviations from the sampling plan: No deviations;

Sample collection equipment: Dedicated waste sampling shovel; Agri Research Equipment 1 - green box; Agri Research Equipment 2 - grey box; Plastic transport container (red); Plastic container for assembling samples; Plastic wash bottle with cleaner (for field equipment); Plastic wash bottle with water; Field scale (for weighing samples in the field); shovels for waste sampling.

Preservation of samples: at set temperature and in the dark, and tightly closed;

Weather during sampling: Cloudy.



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CENTRE FOR ENVIRONMENT AND HEALTH

Evidence code: 2830-22/106025-24/117652-T

**Head of task:
Peter Pavlinec, dipl. san. inž.**

Electronically signed Peter Pavlinec, dipl. san. inž. at 02.12.2024 13:41

Results refer only to the sampled sample. The test report shall not be reproduced except in full without written approval of the department. It should not be used for advertising purposes. The sample was kept in accordance to the requirements until testing. All additional information on testing is available at the department.



Evidence code: 1072-22/106025-24/117652-K

Report of chemical analyses

Sample: Kostak d.d. - other wastes (including mixtures of materials) 19 12 12 - LF-B (vezano na vzorec: 24/117651)
Matrix: Waste
Sample number: 24/117652
Purpose: EOT - Waste Sampling and Investigations
Title: Kostak d.d. - other wastes (including mixtures of materials) 19 12 12 (LF-B) 19 12 12 (LF-B)
Head of task: Peter Pavlinec, dipl. san. inž.
Customer: KOSTAK, KOMUNALNO IN GRADBENO PODJETJE, D.D., LESKOVŠKA CESTA 2 A, 8270 Krško
Request: /
Place of sampling: Kostak d.d., Spodnji Stari Grad - stockfile of other wastes (including mixtures of materials) - 19 12 12 (LF-B)
Sample status: The sample complies with criteria for the reception
Sampling **Sample receiving** **Issue date:** 02.12.2024
Date and hour: 06.11.2024 10:45 **Date and hour:** 06.11.2024 13:00
Taken by: Peter Pavlinec, NLZOH OPPVOT **Received by:** Peter Pavlinec

Analytic results

Results marked with # refer to not accredited activity

Parameter	Result Note	Unit	Expressed as/on	Method Place of execution	Start/End
Analysis of eluates					
Leaching with water				SIST EN 12457-4:2004, NM	07.11.24 08.11.24
pH	7.3			SIST ISO 10523: 2012, NM	08.11.24 08.11.24
Temperature	22.5 #	°C		SIST EN 12457-4:2004, NM	08.11.24 08.11.24
Conductivity (25°C)	2310	µS/cm		SIST EN ISO 27888: 1998, NM	08.11.24 08.11.24
Aluminium	0.24	mg/L	Al	ISO 17294-2:2023, NM	18.11.24 18.11.24
Antimony	0.0058	mg/L	Sb	ISO 17294-2:2023, NM	14.11.24 14.11.24
Arsenic	0.0039	mg/L	As	ISO 17294-2:2023, NM	14.11.24 14.11.24
Copper	0.014	mg/L	Cu	ISO 17294-2:2023, NM	14.11.24 14.11.24
Barium	0.61	mg/L	Ba	ISO 17294-2:2023, NM	14.11.24 14.11.24
Beryllium	<0.0005	mg/L	Be	ISO 17294-2:2023, NM	14.11.24 14.11.24
Boron	0.41	mg/L	B	ISO 17294-2:2023, NM	18.11.24 18.11.24
Zinc	0.38	mg/L	Zn	ISO 17294-2:2023, NM	14.11.24 14.11.24
Cadmium	<0.0005	mg/L	Cd	ISO 17294-2:2023, NM	14.11.24 14.11.24



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Analytic results

Results marked with # refer to not accredited activity

Parameter	Result Note	Unit	Expressed as/on	Method Place of execution	Start/End
Cobalt	0.0095	mg/L	Co	ISO 17294-2:2023, NM	14.11.24 14.11.24
Tin	<0.002	mg/L	Sn	ISO 17294-2:2023, NM	14.11.24 14.11.24
Chromium	0.031	mg/L	Cr	ISO 17294-2:2023, NM	14.11.24 14.11.24
Manganese	0.91	mg/L	Mn	ISO 17294-2:2023, NM	18.11.24 18.11.24
Nickel	0.035	mg/L	Ni	ISO 17294-2:2023, NM	14.11.24 14.11.24
Selenium	<0.001	mg/L	Se	ISO 17294-2:2023, NM	14.11.24 14.11.24
Silver	<0.001	mg/L	Ag	ISO 17294-2:2023, NM	18.11.24 18.11.24
Lead	0.0066	mg/L	Pb	ISO 17294-2:2023, NM	14.11.24 14.11.24
Thallium	<0.0050 #	mg/L	Tl	ISO 17294-2:2023, NM	14.11.24 14.11.24
Tellurium	<0.0050 #	mg/L	Te	ISO 17294-2:2023, NM	14.11.24 14.11.24
Vanadium	0.0038	mg/L	V	ISO 17294-2:2023, NM	14.11.24 14.11.24
Mercury	<0.0001	mg/L	Hg	SIST EN ISO 12846, modification in point 5, without chapter 7, NM	08.11.24 13.11.24
Molybdenum	0.018	mg/L	Mo	ISO 17294-2:2023, NM	14.11.24 14.11.24
Iron	2.1 #*	mg/L	Fe	ISO 17294-2:2023, NM	14.11.24 14.11.24
Phenol index	0.41	mg/L		ISO 14402:1999(E)-point 4, NM	13.11.24 13.11.24
Total Cyanide	<0.01	mg/L	CN ⁻	SIST EN ISO 14403-2:2013, NM	12.11.24 12.11.24
Free cyanide	<0.02	mg/L	CN ⁻	SIST EN ISO 14403-2:2013, NM	13.11.24 13.11.24
Ammonium	38 #	mg/L	N	ISO 11732:2005, chapter 4, NM	13.11.24 13.11.24
Total bound Nitrogen	100 #	mg/L	N	SIST EN ISO 20236:2022, NM	12.11.24 12.11.24
Phenol Index	0.41	mg/L		ISO 14402:1999(E)-point 4, NM	08.11.24 13.11.24
Nitrites	<0.1 #	mg/L	NO ₂ ⁻	SIST EN ISO 10304-1: 2009, NM	12.11.24 12.11.24
Fluoride	0.23	mg/L	F ⁻	ISO 10359-1:1992, NM	14.11.24 14.11.24
Chloride	1060	mg/kg s.s.	Cl ⁻	SIST EN ISO 10304-1: 2009, NM	12.11.24 12.11.24
Chloride	106	mg/L	Cl ⁻	SIST EN ISO 10304-1: 2009, NM	12.11.24 12.11.24
Adsorbable organic halogens - AOX	0.11	mg/L	Cl ⁻	SIST EN ISO 9562: 2005, NM	12.11.24 12.11.24



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Analytic results

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Parameter	Result Note	Unit	Expressed as/on	Method Place of execution	Start/End
Dissolved organic carbon (DOC)	8380	mg/kg s.s.	C	SIST ISO 8245: 2000, NM	11.11.24 11.11.24
Total dissolved solids	2730	mg/L		SIST EN 15216:2022, NM	11.11.24 14.11.24
Waste analysis					
Antimony	4.2	mg/kg s.s.	Sb	ISO 17294-2, modified, NM	15.11.24 18.11.24
Arsenic	<1.0	mg/kg s.s.	As	ISO 17294-2, modified, NM	15.11.24 18.11.24
Copper	54	mg/kg s.s.	Cu	ISO 17294-2, modified, NM	15.11.24 18.11.24
Zinc	100	mg/kg s.s.	Zn	ISO 17294-2, modified, NM	15.11.24 18.11.24
Cadmium	<0.3	mg/kg s.s.	Cd	ISO 17294-2, modified, NM	15.11.24 18.11.24
Cobalt	2.6	mg/kg s.s.	Co	ISO 17294-2, modified, NM	15.11.24 18.11.24
Chromium	24	mg/kg s.s.	Cr	ISO 17294-2, modified, NM	15.11.24 18.11.24
Manganese	100	mg/kg s.s.	Mn	ISO 17294-2, modified, NM	15.11.24 18.11.24
Nickel	14	mg/kg s.s.	Ni	ISO 17294-2, modified, NM	15.11.24 18.11.24
Lead	13	mg/kg s.s.	Pb	ISO 17294-2, modified, NM	15.11.24 18.11.24
Thallium	<0.16	mg/kg s.s.	Tl	ISO 17294-2, modified, NM	15.11.24 18.11.24
Vanadium	4.1	mg/kg s.s.	V	ISO 17294-2, modified, NM	15.11.24 18.11.24
Ammonium	1100	#	N	SIST ISO 5664: 1996, NM	13.11.24 13.11.24
Mercury	0.17	mg/kg s.s.	Hg	SIST EN ISO 12846, modification in point 5, without chapter 7, NM	14.11.24 15.11.24
Naphthalene	0.16	mg/kg s.s.		ISO 18287:2006 modified in point 7.2, NM	08.11.24 12.11.24
Acenaphthylene	<0.10	mg/kg s.s.		ISO 18287:2006 modified in point 7.2, NM	08.11.24 12.11.24
Acenaphthene	<0.10	mg/kg s.s.		ISO 18287:2006 modified in point 7.2, NM	08.11.24 12.11.24
Fluorene	<0.10	mg/kg s.s.		ISO 18287:2006 modified in point 7.2, NM	08.11.24 12.11.24
Phenanthrene	0.58	mg/kg s.s.		ISO 18287:2006 modified in point 7.2, NM	08.11.24 12.11.24
Anthracene	<0.10	mg/kg s.s.		ISO 18287:2006 modified in point 7.2, NM	08.11.24 12.11.24
Fluoranthene	0.67	mg/kg s.s.		ISO 18287:2006 modified in point 7.2, NM	08.11.24 12.11.24
Pyrene	0.56	mg/kg s.s.		ISO 18287:2006 modified in point 7.2, NM	08.11.24 12.11.24



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Analytic results

Results marked with # refer to not accredited activity

Parameter	Result Note	Unit	Expressed as/on	Method Place of execution	Start/End
Benzo(b)fluoranthene	0.12	mg/kg s.s.		ISO 18287:2006 modified in point 7.2, NM	08.11.24 12.11.24
Benzo(a)anthracene	0.18	mg/kg s.s.		ISO 18287:2006 modified in point 7.2, NM	08.11.24 12.11.24
Benzo(k)fluoranthene	0.14	mg/kg s.s.		ISO 18287:2006 modified in point 7.2, NM	08.11.24 12.11.24
Chrysene	0.21	mg/kg s.s.		ISO 18287:2006 modified in point 7.2, NM	08.11.24 12.11.24
Benzo(a)pyrene	<0.10	mg/kg s.s.		ISO 18287:2006 modified in point 7.2, NM	08.11.24 12.11.24
Benzo(ghi)perylene	<0.10	mg/kg s.s.		ISO 18287:2006 modified in point 7.2, NM	08.11.24 12.11.24
Dibenzo(a,h)anthracene	<0.10	mg/kg s.s.		ISO 18287:2006 modified in point 7.2, NM	08.11.24 12.11.24
Polycyclic aromatic hydrocarbons (sum)	2.6	mg/kg s.s.		ISO 18287:2006 modified in point 7.2, NM	08.11.24 12.11.24
PCB-28 (2,4,4'-trichlorobiphenyl)	0.015	mg/kg s.s.		SIST EN 17322:2020, NM	13.11.24 21.11.24
PCB-52 (2,2',5,5'-tetrachlorobiphenyl)	0.006	mg/kg s.s.		SIST EN 17322:2020, NM	13.11.24 21.11.24
PCB-101 (2,2',4,5,5'-pentachlorobiphenyl)	<0.003	mg/kg s.s.		SIST EN 17322:2020, NM	13.11.24 21.11.24
PCB-138: (2,2',3,4,4',5'-hexachlorobiphenyl)	<0.001	mg/kg s.s.		SIST EN 17322:2020, NM	13.11.24 21.11.24
PCB-118	0.001	mg/kg s.s.		SIST EN 17322:2020, NM	13.11.24 21.11.24
PCB-153 (2,2',4,4',5,5'-hexachlorobiphenyl)	<0.002	mg/kg s.s.		SIST EN 17322:2020, NM	13.11.24 21.11.24
PCB-180 (2,2',3,4,4',5,5'-heptachlorobiphenyl)	<0.001	mg/kg s.s.		SIST EN 17322:2020, NM	13.11.24 21.11.24
PCB - sum	0.022	mg/kg s.s.		SIST EN 17322:2020, NM	13.11.24 21.11.24
Phenol index	9.1	mg/kg s.s.	#	ND-CKA-146, version 2, NM	13.11.24 13.11.24
Adsorbable organic halogens - AOX	200	mg/kg s.s.	#	SIST EN 16166:2022, NM	20.11.24 20.11.24
Total Cyanide	<1.5	mg/kg s.s.	CN ⁻	SIST EN ISO 17380:2013, NM	07.11.24 12.11.24
Free cyanide	<1.5	mg/kg s.s.	CN ⁻	SIST EN ISO 17380:2013, NM	07.11.24 13.11.24
Free cyanide	<1.5	mg/kg	CN ⁻	SIST EN ISO 17380:2013, NM	07.11.24 13.11.24
Total Cyanide	<1.5	mg/kg	CN ⁻	SIST EN ISO 17380:2013, NM	07.11.24 12.11.24
Sulfide-easily released	<5.0	mg/kg s.s.	S ²⁻	SIST ISO 13358, NM	14.11.24 14.11.24
Total organic carbon - TOC	35	%DW	C	SIST EN 15936: 2022 - Method B, NM	20.11.24 21.11.24
Loss on ignition	85.5	%DW		SIST EN 15935:2021, point 7.3, NM	12.11.24 13.11.24
Total Nitrogen	7440	mg/kg s.s.	#	SIST ISO 11261:1996, NM	14.11.24 15.11.24



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Analytic results

Results marked with # refer to not accredited activity

Parameter	Result Note	Unit	Expressed as/on	Method Place of execution	Start/End
Highly volatile halogenated hydrocarbons	<7.0	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
Trichloromethane (Chloroform)	<2.4	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
Tribromomethane	<14	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
cis-1,2-Dichloroethene	<4.0	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
Dichloromethane	<5.3	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
1,2-Dichloroethane	<7.0	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
Trichloroethene (Trichloroethylene)	<2.8	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
1,2-Dichloroethylene	<4.0	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
1,1,1,2-Tetrachloroethane	<4.9	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
1,1,1-Trichloroethane	<2.1	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
1,1,2,2-Tetrachloroethane	<5.1	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
1,1,2-Trichloroethane	<7.0	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
1,1-Dichloroethane	<2.8	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
1,1-Dichloroethene	<2.0	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
Tetrachloroethene (tetrachloroethylene)	<1.9	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
trans-1,2-Dichloroethene	<2.5	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
Fluoride	87 #	mg/kg s.s.	F ⁻	ISO 10359-1:1992, NM	12.11.24 13.11.24
Hydrocarbon oil index	3600 #	mg/kg s.s.		SIST EN 14039:2005, modified in points 8.3, 10.3, NM	19.11.24 29.11.24
Volatile aromatic hydrocarbons (BTX)	<1.1	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
Benzene	<1.1	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
Toluene	<1.0	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
Xylene (sum of o-, m-, p- isomers)	<1.1	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
Ethylbenzene	<0.7	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
Styrene	<1.2	mg/kg s.s.		SIST EN ISO 22155:2016, NM	08.11.24 25.11.24
Laboratory compacted density	156 #	g/L		SIST EN 15002, SIST EN 16179, NM	07.11.24 07.11.24



Analytic results

Results marked with # refer to not accredited activity

Parameter	Result Note	Unit	Expressed as/on	Method Place of execution	Start/End
Dry matter	81.7	%		SIST EN 15934:2012 - method A, NM	07.11.24 07.11.24
Inorganic parameters					
Selenium	0.62	mg/kg s.s.	Se	ISO 17294-2, modified, NM	15.11.24 18.11.24
Molybdenum	1.9	mg/kg s.s.	Mo	ISO 17294-2, modified, NM	15.11.24 18.11.24
Iron	2100 #	mg/kg s.s.	Fe	ISO 17294-2, modified, NM	15.11.24 18.11.24
Tin	3.1	mg/kg s.s.	Sn	ISO 17294-2, modified, NM	15.11.24 18.11.24
Barium	53	mg/kg s.s.	Ba	ISO 17294-2, modified, NM	15.11.24 18.11.24
Elements					
Tellurium	<0.16	mg/kg s.s.	Te	ISO 17294-2, modified, NM	15.11.24 18.11.24
Titanium	440 #	mg/kg s.s.	Ti	ISO 17294-2, modified, NM	15.11.24 18.11.24
Beryllium	<0.23	mg/kg s.s.	Be	ISO 17294-2, modified, NM	15.11.24 18.11.24
Metals and Microelements					
Boron	<67	mg/kg s.s.	B	ISO 17294-2, modified, NM	15.11.24 18.11.24

Measurement uncertainty data are available on the request of the client.
*The result is outside the range of accredited method.

Head of department:
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Electronically signed by deputy Danica Marolt Krošl at 02.12.2024 13:29:04

Results refer only to the sampled sample. The test report shall not be reproduced except in full without written approval of the department. It should not be used for advertising purposes.
The sample was kept in accordance to the requirements until testing. All additional information on testing is available at the department.