HazWasteOnline™

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

E218Y-28N17-EM3IJ

Job name

125426 The Shrubberies

Description/Comments

Project

Site

Classified by

Name:
Kiel Murray
Date:
09 Aug 2023 14:02 GMT
Telephone:
01302595857

Company:
Ecofficiency Ltd
Armstrong House
First Avenue
Doncaster
DN9 3GA

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: -

Course	Date
Hazardous Waste Classification	50% complete

Purpose of classification

7 - Disposal of Waste

Address of the waste

-- **Post Code** -

SIC for the process giving rise to the waste

42990 Construction of other civil engineering projects n.e.c.

Description of industry/producer giving rise to the waste

-

Description of the specific process, sub-process and/or activity that created the waste

-

Description of the waste

-

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	Plot 1		Non Hazardous		3
2	Plot 4		Non Hazardous		5

Related documents

#	Name	Description
1	Waste Classification WM3	waste stream template used to create this Job

Report

Created by: Kiel Murray

Created date: 09 Aug 2023 14:02 GMT

Classification of sample: Plot 1

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
Plot 1
Moisture content:
15.7%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 15.7% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		8.1	mg/kg	1.32	9.016	mg/kg	0.000902 %	✓	
2		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<2	mg/kg	1.285	<2.57	mg/kg	<0.0002 %		<LOD
3		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		30.4	mg/kg	1.462	37.456	mg/kg	0.00375 %	✓	
4		chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<0.04	mg/kg	2.27	<0.0908	mg/kg	<0.00000908 %		<LOD
5		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		34.1	mg/kg	1.126	32.365	mg/kg	0.00324 %	✓	
6		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	92.9	mg/kg		78.315	mg/kg	0.00783 %	✓	
7		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<2	mg/kg	1.353	<2.707	mg/kg	<0.000271 %		<LOD
8		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		19.6	mg/kg	1.579	26.098	mg/kg	0.00261 %	✓	
9		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<3	mg/kg	1.405	<4.215	mg/kg	<0.000422 %		<LOD
10		zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		196.6	mg/kg	1.245	206.291	mg/kg	0.0206 %	✓	
11		pH			PH		7.6	pH		7.6	pH	7.6 pH		
12		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
13		acenaphthylene		205-917-1	208-96-8		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
14		acenaphthene		201-469-6	83-32-9		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
15		fluorene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-695-5	86-73-7									
16		phenanthrene				0.03	mg/kg		0.0253	mg/kg	0.00000253 %	✓	
			201-581-5	85-01-8									
17		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
18		fluoranthene				0.07	mg/kg		0.059	mg/kg	0.0000059 %	✓	
			205-912-4	206-44-0									
19		pyrene				0.06	mg/kg		0.0506	mg/kg	0.00000506 %	✓	
			204-927-3	129-00-0									
20		benzo[a]anthracene				0.05	mg/kg		0.0422	mg/kg	0.00000422 %	✓	
		601-033-00-9	200-280-6	56-55-3									
21		chrysene				0.04	mg/kg		0.0337	mg/kg	0.00000337 %	✓	
		601-048-00-0	205-923-4	218-01-9									
22		benzo[b]fluoranthene				0.05	mg/kg		0.0422	mg/kg	0.00000422 %	✓	
		601-034-00-4	205-911-9	205-99-2									
23		benzo[k]fluoranthene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
24		benzo[a]pyrene; benzo[def]chrysene				0.04	mg/kg		0.0337	mg/kg	0.00000337 %	✓	
		601-032-00-3	200-028-5	50-32-8									
25		indeno[123-cd]pyrene				0.03	mg/kg		0.0253	mg/kg	0.00000253 %	✓	
			205-893-2	193-39-5									
26		dibenz[a,h]anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
27		benzo[ghi]perylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			205-883-8	191-24-2									
28		TPH (C6 to C40) petroleum group				60	mg/kg		50.58	mg/kg	0.00506 %	✓	
				TPH									
										Total:	0.045 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "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"

Force this Hazardous property to non hazardous because Nil free phase hydrocarbons

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00506%)

Classification of sample: Plot 4

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
Plot 4
Moisture content:
12.6%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 12.6% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		8.3 mg/kg	1.32	9.578 mg/kg	0.000958 %	✓	
2	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<2 mg/kg	1.285	<2.57 mg/kg	<0.0002 %		<LOD
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		32.8 mg/kg	1.462	41.899 mg/kg	0.00419 %	✓	
4	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<0.04 mg/kg	2.27	<0.0908 mg/kg	<0.00000908 %		<LOD
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		31.3 mg/kg	1.126	30.8 mg/kg	0.00308 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	95.7 mg/kg		83.642 mg/kg	0.00836 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<2 mg/kg	1.353	<2.707 mg/kg	<0.000271 %		<LOD
8	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		21.3 mg/kg	1.579	29.404 mg/kg	0.00294 %	✓	
9	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<3 mg/kg	1.405	<4.215 mg/kg	<0.000422 %		<LOD
10	zinc { zinc oxide }	030-013-00-7	215-222-5	1314-13-2		208.9 mg/kg	1.245	227.258 mg/kg	0.0227 %	✓	
11	pH			PH		7.5 pH		7.5 pH	7.5 pH		
12	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
13	acenaphthylene		205-917-1	208-96-8		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
14	acenaphthene		201-469-6	83-32-9		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
15		fluorene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-695-5	86-73-7									
16		phenanthrene				0.04	mg/kg		0.035	mg/kg	0.0000035 %	✓	
			201-581-5	85-01-8									
17		anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			204-371-1	120-12-7									
18		fluoranthene				0.1	mg/kg		0.0874	mg/kg	0.00000874 %	✓	
			205-912-4	206-44-0									
19		pyrene				0.09	mg/kg		0.0787	mg/kg	0.00000787 %	✓	
			204-927-3	129-00-0									
20		benzo[a]anthracene				0.05	mg/kg		0.0437	mg/kg	0.00000437 %	✓	
		601-033-00-9	200-280-6	56-55-3									
21		chrysene				0.06	mg/kg		0.0524	mg/kg	0.00000524 %	✓	
		601-048-00-0	205-923-4	218-01-9									
22		benzo[b]fluoranthene				0.07	mg/kg		0.0612	mg/kg	0.00000612 %	✓	
		601-034-00-4	205-911-9	205-99-2									
23		benzo[k]fluoranthene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
24		benzo[a]pyrene; benzo[def]chrysene				0.05	mg/kg		0.0437	mg/kg	0.00000437 %	✓	
		601-032-00-3	200-028-5	50-32-8									
25		indeno[123-cd]pyrene				0.05	mg/kg		0.0437	mg/kg	0.00000437 %	✓	
			205-893-2	193-39-5									
26		dibenz[a,h]anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
27		benzo[ghi]perylene				0.03	mg/kg		0.0262	mg/kg	0.00000262 %	✓	
			205-883-8	191-24-2									
28		TPH (C6 to C40) petroleum group				110	mg/kg		96.14	mg/kg	0.00961 %	✓	
				TPH									
										Total:	0.0528 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "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"

Force this Hazardous property to non hazardous because Nil free phase hydrocarbons

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00961%)

Appendix A: Classifier defined and non GB MCL determinands

chromium(III) oxide (worst case) (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

lead compounds with the exception of those specified elsewhere in this Annex

GB MCL index number: 082-001-00-6
Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers many simple lead compounds to be Carcinogenic category 2
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

pH (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H330 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Aquatic Chronic 2; H411

fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

anthracene (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

fluoranthene (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

pyrene (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2; H351

- **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Worst case species based on risk phrases

cadmium {cadmium sulfide}

Worst case species based on risk phrases

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Worst case species based on risk phrases

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on risk phrases

copper {dicopper oxide; copper (I) oxide}

Most likely common species

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Best case assuming no Chromium VI

mercury {mercury dichloride}

Worst case species based on risk phrases

nickel {nickel dihydroxide}

Worst case species based on risk phrases

selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Worst case species based on risk phrases

zinc {zinc oxide}

Best case assuming no Chromium VI

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2023.216.5702.10520 (04 Aug 2023)
HazWasteOnline Database: 2023.216.5702.10520 (04 Aug 2023)

This classification utilises the following guidance and legislation:
WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
GB MCL List - version 1.1 of 09 June 2021