

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:

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



PVOP0-LLAOJ-7EN7G

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

Job name

Orchard Hill[2]

Description/Comments

Phase 2 works

Project

Orchard Hill

Site

Orchard Hill

Classified by

Name:

Ciara McCullagh

Company:

Laing O'Rourke

Date:

04 Jul 2022 13:22 GMT

Telephone:

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:

CERTIFIED

Course

Hazardous Waste Classification

Date

04 Jun 2020

Next 3 year Refresher due by Jun 2023

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	1-21/06/2022-0.50	0.50	Non Hazardous		2
2	2-21/06/2022-0.50	0.50	Non Hazardous		4
3	3-21/06/2022-0.50	0.50	Non Hazardous		6
4	4-21/06/2022-0.50	0.50	Non Hazardous		8

Related documents

#	Name	Description
1	HWOL_22-23765-20220704 132835.hwol	Eurofins Chemtest .hwol file used to create the Job
2	Example waste stream template for contaminated soils	waste stream template used to create this Job

Report

Created by: Ciara McCullagh

Created date: 04 Jul 2022 13:22 GMT

Appendices

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Appendix A: Classifier defined and non GB MCL determinands	10
Appendix B: Rationale for selection of metal species	11
Appendix C: Version	11

Classification of sample: 1-21/06/2022-0.50



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

Sample details

Sample name:	LoW Code:
1-21/06/2022-0.50	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.50 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
14%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#		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							
1		arsenic { arsenic trioxide }				7.9 mg/kg	1.32	8.97 mg/kg	0.000897 %	✓	
		033-003-00-0	215-481-4	1327-53-3							
2		boron { diboron trioxide; boric oxide }				0.9 mg/kg	3.22	2.492 mg/kg	0.000249 %	✓	
		005-008-00-8	215-125-8	1303-86-2							
3		cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
		048-002-00-0	215-146-2	1306-19-0							
4		copper { dicopper oxide; copper (I) oxide }				13 mg/kg	1.126	12.587 mg/kg	0.00126 %	✓	
		029-002-00-X	215-270-7	1317-39-1							
5		lead { lead chromate }			1	24 mg/kg	1.56	32.195 mg/kg	0.00206 %	✓	
		082-004-00-2	231-846-0	7758-97-6							
6		mercury { mercury dichloride }				0.05 mg/kg	1.353	0.0582 mg/kg	0.00000582 %	✓	
		080-010-00-X	231-299-8	7487-94-7							
7		molybdenum { molybdenum(VI) oxide }				0.5 mg/kg	1.5	0.645 mg/kg	0.0000645 %	✓	
		042-001-00-9	215-204-7	1313-27-5							
8		nickel { nickel chromate }				17 mg/kg	2.976	43.513 mg/kg	0.00435 %	✓	
		028-035-00-7	238-766-5	14721-18-7							
9		zinc { zinc chromate }				45 mg/kg	2.774	107.359 mg/kg	0.0107 %	✓	
		024-007-00-3	236-878-9	13530-65-9							
10		naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-052-00-2	202-049-5	91-20-3							
11		acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-917-1	208-96-8							
12		acenaphthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			201-469-6	83-32-9							
13		fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			201-695-5	86-73-7							
14		phenanthrene				20 mg/kg		17.2 mg/kg	0.00172 %	✓	
			201-581-5	85-01-8							
15		anthracene				6.6 mg/kg		5.676 mg/kg	0.000568 %	✓	
			204-371-1	120-12-7							
16		fluoranthene				24 mg/kg		20.64 mg/kg	0.00206 %	✓	
			205-912-4	206-44-0							
17		pyrene				20 mg/kg		17.2 mg/kg	0.00172 %	✓	
			204-927-3	129-00-0							

#	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							
18	benzo[a]anthracene				9.4 mg/kg		8.084 mg/kg	0.000808 %	✓	
	601-033-00-9	200-280-6	56-55-3							
19	chrysene				10 mg/kg		8.6 mg/kg	0.00086 %	✓	
	601-048-00-0	205-923-4	218-01-9							
20	benzo[b]fluoranthene				11 mg/kg		9.46 mg/kg	0.000946 %	✓	
	601-034-00-4	205-911-9	205-99-2							
21	benzo[k]fluoranthene				3.7 mg/kg		3.182 mg/kg	0.000318 %	✓	
	601-036-00-5	205-916-6	207-08-9							
22	benzo[a]pyrene; benzo[def]chrysene				7.4 mg/kg		6.364 mg/kg	0.000636 %	✓	
	601-032-00-3	200-028-5	50-32-8							
23	indeno[123-cd]pyrene				5.1 mg/kg		4.386 mg/kg	0.000439 %	✓	
		205-893-2	193-39-5							
24	dibenz[a,h]anthracene				1.6 mg/kg		1.376 mg/kg	0.000138 %	✓	
	601-041-00-2	200-181-8	53-70-3							
25	benzo[ghi]perylene				4.4 mg/kg		3.784 mg/kg	0.000378 %	✓	
		205-883-8	191-24-2							
26	barium { barium oxide }				58 mg/kg	1.117	55.691 mg/kg	0.00557 %	✓	
		215-127-9	1304-28-5							
27	chromium { chromium(III) oxide (worst case) }				17 mg/kg	1.462	21.368 mg/kg	0.00214 %	✓	
		215-160-9	1308-38-9							
28	vanadium { divanadium pentoxide; vanadium pentoxide }				23 mg/kg	1.785	35.311 mg/kg	0.00353 %	✓	
	023-001-00-8	215-239-8	1314-62-1							
Total:								0.0415 %		

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 Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: 2-21/06/2022-0.50

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

Sample details

Sample name:	LoW Code:
2-21/06/2022-0.50	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.50 m	
Moisture content:	
12%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 12% Wet Weight Moisture Correction applied (MC)

#	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							
1	arsenic { arsenic trioxide }				6.5 mg/kg	1.32	7.552 mg/kg	0.000755 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	boron { diboron trioxide; boric oxide }				0.56 mg/kg	3.22	1.587 mg/kg	0.000159 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
3	cadmium { cadmium oxide }				<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<LOD
	048-002-00-0	215-146-2	1306-19-0							
4	copper { dicopper oxide; copper (I) oxide }				14 mg/kg	1.126	13.871 mg/kg	0.00139 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
5	lead { lead chromate }			1	22 mg/kg	1.56	30.198 mg/kg	0.00194 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
6	mercury { mercury dichloride }				0.06 mg/kg	1.353	0.0715 mg/kg	0.00000715 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
7	molybdenum { molybdenum(VI) oxide }				<0.5 mg/kg	1.5	<0.75 mg/kg	<0.000075 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
8	nickel { nickel chromate }				14 mg/kg	2.976	36.668 mg/kg	0.00367 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
9	zinc { zinc chromate }				38 mg/kg	2.774	92.767 mg/kg	0.00928 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
10	naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
11	acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8							
12	acenaphthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9							
13	fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7							
14	phenanthrene				0.6 mg/kg		0.528 mg/kg	0.0000528 %	✓	
		201-581-5	85-01-8							
15	anthracene				0.22 mg/kg		0.194 mg/kg	0.0000194 %	✓	
		204-371-1	120-12-7							
16	fluoranthene				1.6 mg/kg		1.408 mg/kg	0.000141 %	✓	
		205-912-4	206-44-0							
17	pyrene				1.4 mg/kg		1.232 mg/kg	0.000123 %	✓	
		204-927-3	129-00-0							

#	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							
18	benzo[a]anthracene				1.1 mg/kg		0.968 mg/kg	0.0000968 %	✓	
	601-033-00-9	200-280-6	56-55-3							
19	chrysene				1.6 mg/kg		1.408 mg/kg	0.000141 %	✓	
	601-048-00-0	205-923-4	218-01-9							
20	benzo[b]fluoranthene				1.5 mg/kg		1.32 mg/kg	0.000132 %	✓	
	601-034-00-4	205-911-9	205-99-2							
21	benzo[k]fluoranthene				0.48 mg/kg		0.422 mg/kg	0.0000422 %	✓	
	601-036-00-5	205-916-6	207-08-9							
22	benzo[a]pyrene; benzo[def]chrysene				1.1 mg/kg		0.968 mg/kg	0.0000968 %	✓	
	601-032-00-3	200-028-5	50-32-8							
23	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-893-2	193-39-5							
24	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
25	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-883-8	191-24-2							
26	barium { barium oxide }				45 mg/kg	1.117	44.214 mg/kg	0.00442 %	✓	
		215-127-9	1304-28-5							
27	chromium { chromium(III) oxide (worst case) }				18 mg/kg	1.462	23.151 mg/kg	0.00232 %	✓	
		215-160-9	1308-38-9							
28	vanadium { divanadium pentoxide; vanadium pentoxide }				22 mg/kg	1.785	34.561 mg/kg	0.00346 %	✓	
	023-001-00-8	215-239-8	1314-62-1							
Total:								0.0284 %		

Key

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•	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: 3-21/06/2022-0.50

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

Sample details

Sample name:	LoW Code:
3-21/06/2022-0.50	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.50 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
11%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 11% Wet Weight Moisture Correction applied (MC)

#	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							
1	arsenic { arsenic trioxide }				6.6 mg/kg	1.32	7.756 mg/kg	0.000776 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	boron { diboron trioxide; boric oxide }				0.48 mg/kg	3.22	1.376 mg/kg	0.000138 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
3	cadmium { cadmium oxide }				0.35 mg/kg	1.142	0.356 mg/kg	0.0000356 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	copper { dicopper oxide; copper (I) oxide }				19 mg/kg	1.126	19.039 mg/kg	0.0019 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
5	lead { lead chromate }			1	68 mg/kg	1.56	94.4 mg/kg	0.00605 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
6	mercury { mercury dichloride }				0.24 mg/kg	1.353	0.289 mg/kg	0.0000289 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
7	molybdenum { molybdenum(VI) oxide }				0.7 mg/kg	1.5	0.935 mg/kg	0.0000935 %	✓	
	042-001-00-9	215-204-7	1313-27-5							
8	nickel { nickel chromate }				14 mg/kg	2.976	37.084 mg/kg	0.00371 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
9	zinc { zinc chromate }				61 mg/kg	2.774	150.608 mg/kg	0.0151 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
10	naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
11	acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8							
12	acenaphthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9							
13	fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7							
14	phenanthrene				0.85 mg/kg		0.757 mg/kg	0.0000757 %	✓	
		201-581-5	85-01-8							
15	anthracene				0.34 mg/kg		0.303 mg/kg	0.0000303 %	✓	
		204-371-1	120-12-7							
16	fluoranthene				2.5 mg/kg		2.225 mg/kg	0.000223 %	✓	
		205-912-4	206-44-0							
17	pyrene				2.1 mg/kg		1.869 mg/kg	0.000187 %	✓	
		204-927-3	129-00-0							

#	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							
18	benzo[a]anthracene				1.3 mg/kg		1.157 mg/kg	0.000116 %	✓	
	601-033-00-9	200-280-6	56-55-3							
19	chrysene				1.5 mg/kg		1.335 mg/kg	0.000133 %	✓	
	601-048-00-0	205-923-4	218-01-9							
20	benzo[b]fluoranthene				1.8 mg/kg		1.602 mg/kg	0.00016 %	✓	
	601-034-00-4	205-911-9	205-99-2							
21	benzo[k]fluoranthene				0.6 mg/kg		0.534 mg/kg	0.0000534 %	✓	
	601-036-00-5	205-916-6	207-08-9							
22	benzo[a]pyrene; benzo[def]chrysene				1.2 mg/kg		1.068 mg/kg	0.000107 %	✓	
	601-032-00-3	200-028-5	50-32-8							
23	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-893-2	193-39-5							
24	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
25	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-883-8	191-24-2							
26	barium { barium oxide }				66 mg/kg	1.117	65.584 mg/kg	0.00656 %	✓	
		215-127-9	1304-28-5							
27	chromium { chromium(III) oxide (worst case) }				13 mg/kg	1.462	16.91 mg/kg	0.00169 %	✓	
		215-160-9	1308-38-9							
28	vanadium { divanadium pentaoxide; vanadium pentoxide }				19 mg/kg	1.785	30.187 mg/kg	0.00302 %	✓	
	023-001-00-8	215-239-8	1314-62-1							
Total:								0.0402 %		

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 Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: 4-21/06/2022-0.50

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

Sample details

Sample name:	LoW Code:
4-21/06/2022-0.50	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.50 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
15%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 15% Wet Weight Moisture Correction applied (MC)

#	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							
1	arsenic { arsenic trioxide }				5.2 mg/kg	1.32	5.836 mg/kg	0.000584 %	✓	
	033-003-00-0	215-481-4	1327-53-3							
2	boron { diboron trioxide; boric oxide }				0.59 mg/kg	3.22	1.615 mg/kg	0.000161 %	✓	
	005-008-00-8	215-125-8	1303-86-2							
3	cadmium { cadmium oxide }				0.16 mg/kg	1.142	0.155 mg/kg	0.0000155 %	✓	
	048-002-00-0	215-146-2	1306-19-0							
4	copper { dicopper oxide; copper (I) oxide }				16 mg/kg	1.126	15.312 mg/kg	0.00153 %	✓	
	029-002-00-X	215-270-7	1317-39-1							
5	lead { lead chromate }			1	43 mg/kg	1.56	57.011 mg/kg	0.00366 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
6	mercury { mercury dichloride }				0.21 mg/kg	1.353	0.242 mg/kg	0.0000242 %	✓	
	080-010-00-X	231-299-8	7487-94-7							
7	molybdenum { molybdenum(VI) oxide }				<0.5 mg/kg	1.5	<0.75 mg/kg	<0.000075 %		<LOD
	042-001-00-9	215-204-7	1313-27-5							
8	nickel { nickel chromate }				10 mg/kg	2.976	25.298 mg/kg	0.00253 %	✓	
	028-035-00-7	238-766-5	14721-18-7							
9	zinc { zinc chromate }				43 mg/kg	2.774	101.395 mg/kg	0.0101 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
10	naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
11	acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8							
12	acenaphthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9							
13	fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7							
14	phenanthrene				1.7 mg/kg		1.445 mg/kg	0.000145 %	✓	
		201-581-5	85-01-8							
15	anthracene				0.64 mg/kg		0.544 mg/kg	0.0000544 %	✓	
		204-371-1	120-12-7							
16	fluoranthene				3.6 mg/kg		3.06 mg/kg	0.000306 %	✓	
		205-912-4	206-44-0							
17	pyrene				3.4 mg/kg		2.89 mg/kg	0.000289 %	✓	
		204-927-3	129-00-0							

#	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							
18	benzo[a]anthracene				2.5 mg/kg		2.125 mg/kg	0.000213 %	✓	
	601-033-00-9	200-280-6	56-55-3							
19	chrysene				2.7 mg/kg		2.295 mg/kg	0.00023 %	✓	
	601-048-00-0	205-923-4	218-01-9							
20	benzo[b]fluoranthene				4 mg/kg		3.4 mg/kg	0.00034 %	✓	
	601-034-00-4	205-911-9	205-99-2							
21	benzo[k]fluoranthene				1.4 mg/kg		1.19 mg/kg	0.000119 %	✓	
	601-036-00-5	205-916-6	207-08-9							
22	benzo[a]pyrene; benzo[def]chrysene				2.9 mg/kg		2.465 mg/kg	0.000246 %	✓	
	601-032-00-3	200-028-5	50-32-8							
23	indeno[123-cd]pyrene				2.7 mg/kg		2.295 mg/kg	0.00023 %	✓	
		205-893-2	193-39-5							
24	dibenz[a,h]anthracene				0.59 mg/kg		0.501 mg/kg	0.0000501 %	✓	
	601-041-00-2	200-181-8	53-70-3							
25	benzo[ghi]perylene				2.2 mg/kg		1.87 mg/kg	0.000187 %	✓	
		205-883-8	191-24-2							
26	barium { barium oxide }				42 mg/kg	1.117	39.859 mg/kg	0.00399 %	✓	
		215-127-9	1304-28-5							
27	chromium { chromium(III) oxide (worst case) }				11 mg/kg	1.462	13.666 mg/kg	0.00137 %	✓	
		215-160-9	1308-38-9							
28	vanadium { divanadium pentaoxide; vanadium pentoxide }				16 mg/kg	1.785	24.279 mg/kg	0.00243 %	✓	
	023-001-00-8	215-239-8	1314-62-1							
Total:								0.0289 %		

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 Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
ND	Not detected
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non GB MCL determinands

■ 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

■ barium oxide (EC Number: 215-127-9, CAS Number: 1304-28-5)

Description/Comments: Data from ECHA's C&L Inventory Database, Sigma Aldrich SDS dated 6/2/20
Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/88825>
Data source date: 02 Apr 2020
Hazard Statements: Acute Tox. 3; H301 , Skin Corr. 1B; H314 , Eye Dam. 1; H318 , Acute Tox. 1; H332

■ **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

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds (edit as required)

boron {diboron trioxide; boric oxide}

Reasonable case CLP species based on hazard statements/ molecular weight, physical form and low solubility. Industrial sources include: fluxing agent for glass/enamels; additive for fibre optics, borosilicate glass (edit as required)

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. (edit as required) Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history (edit as required)

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. (edit as required) Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

molybdenum {molybdenum(VI) oxide}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

barium {barium oxide}

worst case

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

worst case

vanadium {divanadium pentaoxide; vanadium pentoxide}

only option

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021

HazWasteOnline Classification Engine Version: 2022.181.5224.9815 (30 Jun 2022)

HazWasteOnline Database: 2022.181.5224.9815 (30 Jun 2022)

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