



LABORATORY REPORT

Report number: R2624

HCL Limited

Customer name:	GBE Environmental Solutions Ltd	Report date:	21/02/2022
Quote Number:	1003rev3	Issue:	-0
Order Number:	GE	Date received:	03/02/2022

Comments:

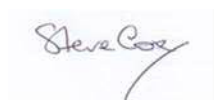
Silt/Liquid.



ASSOCIATED LABORATORY SERVICES LTD
Unit 10/10a Sandford Farm, Sandford Lane, Wareham, Dorset, BH20 4DY

PAHs	Units	R2624 257250-1 Sample C/O HCL Limited 27/01/2022
Naphthalene	mg/kg	<0.02
Acenaphthylene	mg/kg	0.17
Acenaphthene	mg/kg	0.13
Fluorene	mg/kg	0.10
Phenanthrene	mg/kg	1.30
Anthracene	mg/kg	0.43
Fluoranthene	mg/kg	5.95
Pyrene	mg/kg	5.24
Benzo(a)anthracene	mg/kg	2.74
Chrysene	mg/kg	2.77
Benzo(b)fluoranthene	mg/kg	4.56
Benzo(k)fluoranthene	mg/kg	1.73
Benzo(a)pyrene	mg/kg	3.56
Indeno(123cd)pyrene	mg/kg	3.08
Dibenz(ah)anthracene	mg/kg	0.46
Benzo(ghi)perylene	mg/kg	2.56

Signed:



Steve Cox

Company Director

Date: 21st February 2022

Registered Office: 20 – 22 Wenlock Street, London N1 7GU



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Test	Units	R2624 257250-1 Sample C/O HCL Limited 27/01/2022
Moisture Content	% w/w	77.0
Arsenic (total)	mg/kg	16
Boron (water soluble)	mg/kg	2.1
Cadmium (total)	mg/kg	0.5
Chromium (total)	mg/kg	129
Chromium (VI)	mg/kg	<1
Copper (total)	mg/kg	66
Lead (total)	mg/kg	124
Manganese (total)	mg/kg	514
Mercury (total)	mg/kg	<0.5
Molybdenum (total)	mg/kg	7.1
Nickel (total)	mg/kg	30
Selenium (total)	mg/kg	1.5
Zinc (total)	mg/kg	180
pH	units	7.4
Sulphate (2:1 water soluble)	mg/l	61
Sulphate (total)	mg/kg	1784
Sulphide	mg/kg	<10
Cyanide (free)	mg/kg	<1
Cyanide (total)	mg/kg	<1
Thiocyanate	mg/kg	2.0
Phenols (total)	mg/kg	<0.5
Total Organic Carbon (TOC)	% w/w	10.2
Estimate of OMC (calculated from TOC)	% w/w	17.6
Loss On Ignition at 440°C	% w/w	12.3
Asbestos Fibre Identification	-	NAD

TPH	Units	R2624 257250-1 Sample C/O HCL Limited 27/01/2022
VPH Aromatic (>EC5-EC7)	mg/kg	<0.01
VPH Aromatic (>EC7-EC8)	mg/kg	<0.01
VPH Aromatic (>EC8-EC10)	mg/kg	<0.01
EPH Aromatic (>EC10-EC12)	mg/kg	<1
EPH Aromatic (>EC12-EC16)	mg/kg	8
EPH Aromatic (>EC16-EC21)	mg/kg	41
EPH Aromatic (>EC21-EC35)	mg/kg	57
EPH Aromatic (>EC35-EC44)	mg/kg	5
VPH Aliphatic (>C5-C6)	mg/kg	<0.1
VPH Aliphatic (>C6-C8)	mg/kg	<0.1
VPH Aliphatic (>C8-C10)	mg/kg	<0.1
EPH Aliphatic (>C10-C12)	mg/kg	16
EPH Aliphatic (>C12-C16)	mg/kg	58
EPH Aliphatic (>C16-C35)	mg/kg	768
EPH Aliphatic (>C35-C44)	mg/kg	18

Eluate Analysis	Conc in Eluate	Amount leached
Liquid: Waste Ratio	10:1	10:1
pH (units)	8.3	
Temperature (°C)	20	
Conductivity (µS/cm)	674	
		mg/kg

BS EN 12457-2 Limit Values		
mg/kg at L:S 10:1		
Inert Waste	Non-reactive Hazardous Waste	Hazardous Waste

Antimony (µg/l Sb)	1.1	0.011
Arsenic (µg/l As)	0.98	0.010
Barium (µg/l Ba)	73.3	0.733
Cadmium (µg/l Cd)	<0.07	<0.0007
Chromium (µg/l Cr)	<0.2	<0.002
Copper (µg/l Cu)	1.9	0.019
Lead (µg/l Pb)	<0.2	<0.002
Mercury (µg/l Hg)	<0.008	<0.00008
Molybdenum (µg/l Mo)	7.7	0.077
Nickel (µg/l Ni)	0.7	0.007
Selenium (µg/l Se)	0.38	0.004
Zinc (µg/l Zn)	<1	<0.01
Chloride (mg/l Cl)	9.1	91
Fluoride (mg/l F)	<0.1	<1
Sulphate (mg/l SO ₄)	119	1187
Total Dissolved Solids (mg/l TDS)	510	5100
Phenol Index (µg/l PhOH)	<10	<0.1
Dissolved Organic Carbon (mg/l C)	15	150

0.06	0.7	5
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.5	10	50
0.01	0.2	2
0.5	10	30
0.4	10	40
0.1	0.5	7
4	50	200
800	15000	25000
10	150	500
1000	20000	50000
4000	60000	100000
1		
500	800	1000

Waste Analysis	Units	Result
Total Organic Carbon	% w/w	10.2
Loss on Ignition	% w/w	12.3
BTEX	mg/kg	<0.06
PCBs (7 congeners)	mg/kg	<0.045
TPH (C10 - C40)	mg/kg	841
PAH (total)	mg/kg	34.8
pH	pH units	7.4
Acid Neutralisation Capacity (pH4)	mol/kg	0.14
Acid Neutralisation Capacity (pH7)	mol/kg	0.02

3%	5%	6%
		10%
6		
1		
500		
100		
	>6	
	To be evaluated	
	To be evaluated	

Signed:



Steve Cox

Company Director

Date: 21st February 2022

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)



UAF0U-XQ0Y2-U32NW

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

Job name

GBE R2624

Description/Comments

Project

HCL Silt/liquid

Site

HCL

Classified by

Name: **Steve Cox**
 Date: **23 Feb 2022 09:03 GMT**
 Telephone: **07947 682488**

Company: **Associated Laboratory Services Ltd**

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	Date
Hazardous Waste Classification	08 Jun 2017
Most recent 3 year Refresher	01 Dec 2020

Next 3 year Refresher due by Dec 2023

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	WAC Results			Page
					Inert	SNRHW	Hazardous	
1	Sample 1		Non Hazardous		Fail	Fail	N/A	2

Related documents

#	Name	Description
1	HCL Sludge	waste stream template used to create this Job

WAC results

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate the samples in this Job: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

Report

Created by: Steve Cox

Created date: 23 Feb 2022 09:03 GMT

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Appendix A: Classifier defined and non GB MCL determinands	6
Appendix B: Rationale for selection of metal species	7
Appendix C: Version	8

Classification of sample: Sample 1


Non Hazardous Waste
 Classified as **17 05 06**
 in the List of Waste

Sample details

Sample name: **Sample 1** LoW Code: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
 Chapter: 17 05 06 (Dredging spoil other than those mentioned in 17 05 05)
 Entry:

Hazard properties

None identified

Determinands

Moisture content: 0% No 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	pH				7.4 pH		7.4 pH	7.4 pH		
2	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				16 mg/kg	1.895	30.312 mg/kg	0.00303 %		
	033-005-00-1									
3	boron { diboron trioxide; boric oxide }				2.1 mg/kg	3.22	6.762 mg/kg	0.000676 %		
	005-008-00-8	215-125-8	1303-86-2							
4	cadmium oxide				0.5 mg/kg		0.5 mg/kg	0.00005 %		
	048-002-00-0	215-146-2	1306-19-0							
5	chromium in chromium(VI) compounds { chromium(VI) oxide }				1 mg/kg	1.923	1.923 mg/kg	0.000192 %		
	024-001-00-0	215-607-8	1333-82-0							
6	copper(II) oxide				128 mg/kg		128 mg/kg	0.0128 %		
	029-016-00-6	215-269-1	1317-38-0							
7	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	124 mg/kg		124 mg/kg	0.0124 %		
	082-001-00-6									
8	manganese { manganese dioxide }				514 mg/kg	1.582	813.381 mg/kg	0.0813 %		
	025-001-00-3	215-202-6	1313-13-9							
9	mercury { mercury }				0.5 mg/kg		0.5 mg/kg	0.00005 %		
	080-001-00-0	231-106-7	7439-97-6							
10	molybdenum { molybdenum(VI) oxide }				7.1 mg/kg	1.5	10.651 mg/kg	0.00107 %		
	042-001-00-9	215-204-7	1313-27-5							
11	nickel { nickel }			7	30 mg/kg		30 mg/kg	0.003 %		
	028-002-00-7	231-111-4	7440-02-0							
12	selenium { selenium }				1.5 mg/kg		1.5 mg/kg	0.00015 %		
	034-001-00-2	231-957-4	7782-49-2							
13	zinc { zinc oxide }				180 mg/kg	1.245	224.049 mg/kg	0.0224 %		
	030-013-00-7	215-222-5	1314-13-2							
14	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				1 mg/kg	1.884	1.884 mg/kg	0.000188 %		
	006-007-00-5									
15	hydrogen sulphide				10 mg/kg		10 mg/kg	0.001 %		
	016-001-00-4	231-977-3	7783-06-4							
16	monohydric phenols				0.5 mg/kg		0.5 mg/kg	0.00005 %		
			P1186							
17	thallium thiocyanate				2 mg/kg		2 mg/kg	0.0002 %		
	615-031-00-0	222-571-7	3535-84-0							
18	naphthalene				0.02 mg/kg		0.02 mg/kg	0.000002 %		
	601-052-00-2	202-049-5	91-20-3							

#	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								
19	acenaphthylene	205-917-1	208-96-8		0.17 mg/kg		0.17 mg/kg	0.000017 %			
20	acenaphthene	201-469-6	83-32-9		0.13 mg/kg		0.13 mg/kg	0.000013 %			
21	fluorene	201-695-5	86-73-7		0.1 mg/kg		0.1 mg/kg	0.00001 %			
22	phenanthrene	201-581-5	85-01-8		0.3 mg/kg		0.3 mg/kg	0.00003 %			
23	anthracene	204-371-1	120-12-7		0.43 mg/kg		0.43 mg/kg	0.000043 %			
24	fluoranthene	205-912-4	206-44-0		5.95 mg/kg		5.95 mg/kg	0.000595 %			
25	pyrene	204-927-3	129-00-0		5.24 mg/kg		5.24 mg/kg	0.000524 %			
26	benzo[a]anthracene	601-033-00-9	200-280-6		2.74 mg/kg		2.74 mg/kg	0.000274 %			
27	chrysene	601-048-00-0	205-923-4		2.77 mg/kg		2.77 mg/kg	0.000277 %			
28	benz[e]acephenanthrylene	601-034-00-4	205-911-9		4.56 mg/kg		4.56 mg/kg	0.000456 %			
29	benzo[k]fluoranthene	601-036-00-5	205-916-6		1.73 mg/kg		1.73 mg/kg	0.000173 %			
30	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5		3.56 mg/kg		3.56 mg/kg	0.000356 %			
31	dibenz[a,h]anthracene	601-041-00-2	200-181-8		0.46 mg/kg		0.46 mg/kg	0.000046 %			
32	benzo[ghi]perylene	205-883-8	191-24-2		2.56 mg/kg		2.56 mg/kg	0.000256 %			
33	indeno[123-cd]pyrene	205-893-2	193-39-5		3.08 mg/kg		3.08 mg/kg	0.000308 %			
34	benzene	601-020-00-8	200-753-7		0.06 mg/kg		0.06 mg/kg	0.000006 %			
35	toluene	601-021-00-3	203-625-9		0.06 mg/kg		0.06 mg/kg	0.000006 %			
36	ethylbenzene	601-023-00-4	202-849-4		0.06 mg/kg		0.06 mg/kg	0.000006 %			
37	o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]		0.06 mg/kg		0.06 mg/kg	0.000006 %			
38	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1		0.06 mg/kg		0.06 mg/kg	0.000006 %			
39	TPH C10 - C40 with silica cleanup		TPH		972 mg/kg		972 mg/kg	0.0972 %			
40	Total Sulphur				10 mg/kg		10 mg/kg	0.001 %			
Total:									0.24 %		

Key

- User supplied data
- Determinand defined or amended by HazWasteOnline (see Appendix A)
- Determinand defined by classifier (see Appendix A)
- Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration

CLP: Note 1 Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 2: Oxidizing "waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials"

Force this Hazardous property to non hazardous because CrVI not expected to be present in this sample matrix 1.0mg/kg is the reporting limit of the analytical equipment

Hazard Statements hit:

Ox. Sol. 1; H271 "May cause fire or explosion; strong oxidiser."

Because of determinand:

chromium(VI) oxide: (compound conc.: 0.00019%)

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 Highly unlikely to be flammable on this sample matrix at the reported levels

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

benzene: (conc.: 6.0e-06%)

toluene: (conc.: 6.0e-06%)

ethylbenzene: (conc.: 6.0e-06%)

tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane: (conc.: 6.0e-06%)

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

Because of determinand:

o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]: (conc.: 6.0e-06%)

HP 3(iv): Flammable "flammable gaseous waste: gaseous waste which is flammable in air at 20°C and a standard pressure of 101.3 kPa"

Force this Hazardous property to non hazardous because Sample Matrix is in the form of Solid/Sludge

Hazard Statements hit:

Flam. Gas 1; H220 "Extremely flammable gas."

Because of determinand:

hydrogen sulphide: (conc.: 0.001%)

WAC results for sample: Sample 1

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample FAILS the Inert (Inert waste landfill) criteria.

The sample FAILS the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	10.2	3	5	6
2	LOI (loss on ignition)	%	12.3	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	0.06	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	0.045	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	841	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	34.8	100	-	-
7	pH	pH	7.4	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	0.14	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	1.1	0.5	2	25
10	barium	mg/kg	73.3	20	100	300
11	cadmium	mg/kg	0.07	0.04	1	5
12	chromium	mg/kg	0.2	0.5	10	70
13	copper	mg/kg	1.9	2	50	100
14	mercury	mg/kg	0.0008	0.01	0.2	2
15	molybdenum	mg/kg	7.7	0.5	10	30
16	nickel	mg/kg	0.7	0.4	10	40
17	lead	mg/kg	0.2	0.5	10	50
18	antimony	mg/kg	1.1	0.06	0.7	5
19	selenium	mg/kg	0.38	0.1	0.5	7
20	zinc	mg/kg	1	4	50	200
21	chloride	mg/kg	9.1	800	15,000	25,000
22	fluoride	mg/kg	0.1	10	150	500
23	sulphate	mg/kg	119	1,000	20,000	50,000
24	phenol index	mg/kg	10	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	15	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	510	4,000	60,000	100,000

Key

	User supplied data
	Not applicable
	Inert WAC criteria fail
	SNRHW WAC criteria fail
	Hazardous WAC criteria fail

Appendix A: Classifier defined and non GB MCL determinands

pH (CAS Number: PH)

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

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

salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex

GB MCL index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
20 Nov 2021 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

monohydric phenols (CAS Number: P1186)

Description/Comments: Combined hazards statements from harmonised entries in CLP for phenol, cresols and xylenols (604-001-00-2, 604-004-00-9, 604-006-00-X)
Data source: CLP combined data
Data source date: 26 Mar 2019
Hazard Statements: Muta. 2; H341 , Acute Tox. 3; H331 , Acute Tox. 3; H311 , Acute Tox. 3; H301 , STOT RE 2; H373 , Skin Corr. 1B; H314 , Skin Corr. 1B; H314 >= 3 % , Skin Irrit. 2; H315 1 £ conc. < 3 % , Eye Irrit. 2; H319 1 £ conc. < 3 % , Aquatic Chronic 2; H411

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

▀ **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

▀ **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

▀ **ethylbenzene** (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4

Description/Comments:

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 2B (77) 2000

 TPH C10 - C40 with silica cleanup (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013

Data source: WM3

Data source date: 15 Jun 2021

Hazard Statements: None.

 Total Sulphur

Description/Comments: Organo sulphur compounds and Metal Sulphides

Data source: Wikipedia

Data source date: 09 Jun 2021

Hazard Statements: None.

Appendix B: Rationale for selection of metal species

arsenic {arsenic acid and its salts with the exception of those specified elsewhere in this Annex}

Unable to determine Arsenic type but unlikely to be Pentoxide/trioxide - worse case

boron {diboron trioxide; boric oxide}

Sample is from waste processing plant where most probable species would be Oxide all other options are unlikely

chromium in chromium(VI) compounds {chromium(VI) oxide}

Total Chromium is valued on results as same figure as Chromium 3 - CrVI is <1.0

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

Best reasonable case for sample matrix

manganese {manganese dioxide}

Most likely in this sample matrix

mercury {mercury}

less than figure reported from EFW process and Hg present would have been volatilised off

molybdenum {molybdenum(VI) oxide}

Unknown source of contaminants - worst case chosen

nickel {nickel}

total figure only required for this sample matrix

selenium {selenium}

No reason to believe selenium of any specific type would be found in this sample matrix

zinc {zinc oxide}

In this sample matrix and from its source this is the most likely form

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

<1.0mg/kg reported and unlikely to be in any more complex forms

Appendix C: Version

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

HazWasteOnline Classification Engine Version: 2022.25.4995.9469 (25 Jan 2022)

HazWasteOnline Database: 2022.25.4995.9469 (25 Jan 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







