


Classification of sample: HYDTP14---0.40

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

Sample details

Sample name:	LoW Code:
HYDTP14---0.40	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
15% (wet weight correction)	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

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
	CLP index number	EC Number	CAS Number							
1	acenaphthene	201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
2	acenaphthylene	205-917-1	208-96-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
3	anthracene	204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3	12 mg/kg	1.32	13.467 mg/kg	0.00135 %	✓	
5	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	0.21 mg/kg		0.179 mg/kg	0.0000179 %	✓	
6	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
7	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
8	benzo[ghi]perylene	205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
9	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
10	beryllium { beryllium oxide }	004-003-00-8	215-133-1	1304-56-9	0.91 mg/kg	2.775	2.147 mg/kg	0.000215 %	✓	
11	boron { boron tribromide/trichloride/trifluoride (combined) }		10294-33-4, 10294-34-5, 7637-07-2		0.7 mg/kg	13.43	7.991 mg/kg	0.000799 %	✓	
12	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	<0.2 mg/kg	1.285	<0.257 mg/kg	<0.00002 %		<LOD
13	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }	215-160-9	1308-38-9		22 mg/kg	1.462	27.331 mg/kg	0.00273 %	✓	
14	chromium in chromium(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0	<1.2 mg/kg	1.923	<2.308 mg/kg	<0.000231 %		<LOD
15	chrysene	601-048-00-0	205-923-4	218-01-9	0.19 mg/kg		0.161 mg/kg	0.0000161 %	✓	
16	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1	26 mg/kg	1.126	24.882 mg/kg	0.00249 %	✓	

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	CLP index number	EC Number	CAS Number									
17	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 %		<LOD
	006-007-00-5											
18	dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-041-00-2	200-181-8	53-70-3									
19	fluoranthene				0.45	mg/kg		0.383	mg/kg	0.0000383 %	✓	
		205-912-4	206-44-0									
20	fluorene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		201-695-5	86-73-7									
21	indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		205-893-2	193-39-5									
22	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	48	mg/kg		40.8	mg/kg	0.00408 %	✓	
	082-001-00-6											
23	mercury { mercury dichloride }				<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<LOD
	080-010-00-X	231-299-8	7487-94-7									
24	naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
	601-052-00-2	202-049-5	91-20-3									
25	nickel { nickel dihydroxide }				22	mg/kg	1.579	29.537	mg/kg	0.00295 %	✓	
	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]									
26	pH				7.4	pH		7.4	pH	7.4 pH		
			PH									
27	phenanthrene				0.48	mg/kg		0.408	mg/kg	0.0000408 %	✓	
		201-581-5	85-01-8									
28	pyrene				0.37	mg/kg		0.315	mg/kg	0.0000314 %	✓	
		204-927-3	129-00-0									
29	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	1.405	<1.405	mg/kg	<0.000141 %		<LOD
	034-002-00-8											
30	zinc { zinc oxide }				67	mg/kg	1.245	70.886	mg/kg	0.00709 %	✓	
	030-013-00-7	215-222-5	1314-13-2									
31	monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
			P1186									
32	vanadium { divanadium pentaoxide; vanadium pentoxide }				27	mg/kg	1.785	40.97	mg/kg	0.0041 %	✓	
	023-001-00-8	215-239-8	1314-62-1									
Total:										0.0267 %		

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 CLP determinands

- **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

- **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

- **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

- **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

- **boron tribromide/trichloride/trifluoride (combined)** (CAS Number: 10294-33-4, 10294-34-5, 7637-07-2)

Description/Comments: Combines the hazard statements and the average of the conversion factors for boron tribromide, boron trichloride and boron trifluoride

Data source: N/A

Data source date: 06 Aug 2015

Hazard Statements: EUH014 , Acute Tox. 2 H330 , Acute Tox. 2 H300 , Skin Corr. 1A H314 , Skin Corr. 1B H314

- **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

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

CLP index number: 006-007-00-5

Description/Comments: Conversion factor based on a worst case compound: sodium cyanide

Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)

Additional Hazard Statement(s): EUH032 >= 0.2 %

Reason for additional Hazards Statement(s):

14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

- **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

- **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

- **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

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

CLP 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 CLP protocols, considers many simple lead compounds to be Carcinogenic category 2

Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)

Additional Hazard Statement(s): Carc. 2 H351

Reason for additional Hazards Statement(s):

03 Jun 2015 - 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.

• **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

• **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

• **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: Acute Tox. 3 H301 , Acute Tox. 3 H311 , Acute Tox. 3 H331 , Skin Corr. 1B H314 , Skin Corr. 1B H314 >= 3 % , Skin Irrit. 2 H315 1 £ conc. < 3 % , Eye Irrit. 2 H319 1 £ conc. < 3 % , Muta. 2 H341 , STOT RE 2 H373 , Aquatic Chronic 2 H411

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

CLP index number: 601-023-00-4

Description/Comments:

Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6)

Additional Hazard Statement(s): Carc. 2 H351

Reason for additional Hazards Statement(s):

03 Jun 2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

• **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

• **1,1-dichloroethane and 1,2-dichloroethane (combined) (EC Number: 203-458-1, 200-863-5, CAS Number: 107-06-2, 75-34-3)**

Description/Comments: Combines the hazard statements and risk phrases for 1,1-dichloroethane and 1,2-dichloroethane

Data source: N/a

Data source date: 14 Oct 2016

Hazard Statements: Flam. Liq. 2 H225 , Acute Tox. 4 H302 , Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 1B H350 , Aquatic Chronic 3 H412

• **1,2,3-trichlorobenzene (EC Number: 201-757-1, CAS Number: 87-61-6)**

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4 H302 , Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , STOT SE 3 H336 , Aquatic Acute 1 H400 , Aquatic Chronic 3 H410

• **1,3-dichloropropane** (EC Number: 205-531-3, CAS Number: 142-28-9)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4 H332 , Flam. Liq. 2 H225 , Flam. Liq. 3 H226 , Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335

• **2,2-dichloropropane** (EC Number: 209-832-0, CAS Number: 594-20-7)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4 H332 , Flam. Liq. 2 H225 , Acute Tox. 4 H302 , Acute Tox. 4 H312 , Eye Irrit. 2 H319

• **bromodichloromethane** (EC Number: 200-856-7, CAS Number: 75-27-4)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4 H302 , Skin Irrit. 2 H315 , Eye Dam. 1 H318 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Muta. 1B H340 , Carc. 1B H350 , Repr. 1A H360

• **n-butylbenzene** (EC Number: 203-209-7, CAS Number: 104-51-8)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Flam. Liq. 3 H226 , Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

• **dibromochloromethane** (EC Number: 204-704-0, CAS Number: 124-48-1)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 3;

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 4 H312 , Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , Acute Tox. 4 H332 , STOT SE 3 H335 , STOT SE 3 H336 , Muta. 2 H341 , Aquatic Chronic 2 H411

• **hexachlorobutadiene** (EC Number: 201-765-5, CAS Number: 87-68-3)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 3;

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 3 H301 , Acute Tox. 2 H310 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Eye Irrit. 2 H319 , Acute Tox. 2 H330 , Carc. 2 H351 , Repr. 2 H361 , STOT SE 2 H371 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

• **4-isopropyltoluene** (EC Number: 202-796-7, CAS Number: 99-87-6)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Flam. Liq. 3 H226 , Asp. Tox. 1 H304 , Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Chronic 2 H411

• **sec-butylbenzene** (EC Number: 205-227-0, CAS Number: 135-98-8)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Flam. Liq. 3 H226 , Asp. Tox. 1 H304 , Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , Aquatic Chronic 2 H411

• **trans-1,3-dichloropropene** (EC Number: 431-460-4, CAS Number: 10061-02-6)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Flam. Liq. 3 H226 , Acute Tox. 3 H301 , Asp. Tox. 1 H304 , Acute Tox. 3 H311 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Eye Irrit. 2 H319 , Acute Tox. 4 H332 , STOT SE 3 H335 , Aquatic Chronic 1 H410

• **tert-butylbenzene** (EC Number: 202-632-4, CAS Number: 98-06-6)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Flam. Liq. 3 H226 , Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , Acute Tox. 3 H331 , Acute Tox. 4 H332 , STOT SE 3 H335 , Asp. Tox. 1 H304 , Aquatic Chronic 2 H411

• **1,1,1,2-tetrachloroethane** (EC Number: 211-135-1, CAS Number: 630-20-6)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 1 H310 , Eye Irrit. 2 H319 , Acute Tox. 3 H331 , Eye Dam. 1 H318 , Acute Tox. 4 H332 , Carc. 2 H351 , Acute Tox. 4 H312 , Aquatic Chronic 3 H412 , Skin Irrit. 2 H315

• **trichlorofluoromethane** (EC Number: 200-892-3, CAS Number: 75-69-4)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4 H312 , Ozone 1 H420

• **hexachloroethane** (EC Number: 200-666-4, CAS Number: 67-72-1)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Carc. 2 H351 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , STOT RE 2 H373

• **2-nitrophenol** (EC Number: 201-857-5, CAS Number: 88-75-5)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 4 H312 , Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , Acute Tox. 4 H332 , STOT SE 3 H335 , STOT RE 2 H373 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

• **bis(2-chloroethoxy)methane** (EC Number: 203-920-2, CAS Number: 111-91-1)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 3 H301 , Acute Tox. 4 H312 , Acute Tox. 1 H330 , Acute Tox. 2 H330 , STOT SE 1 H370 , STOT RE 2 H373

• **2-methyl naphthalene** (EC Number: 202-078-3, CAS Number: 91-57-6)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4 H302 , Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , STOT SE 3 H336 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

• **2-chloronaphthalene** (EC Number: 202-079-9, CAS Number: 91-58-7)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315

• **dimethyl phthalate** (EC Number: 205-011-6, CAS Number: 131-11-3)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , Acute Tox. 3 H331 , STOT SE 3 H335 , STOT SE 3 H336 , Repr. 2 H361 , Aquatic Chronic 3 H412

• **dibenzofuran** (EC Number: 205-071-3, CAS Number: 132-64-9)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4 H302 , Acute Tox. 4 H312 , Acute Tox. 4 H332 , Aquatic Chronic 2 H411

• **4-chlorophenylphenylether** (EC Number: 230-281-7, CAS Number: 7005-72-3)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4 H302 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Eye Dam. 1 H318 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

• **diethyl phthalate** (EC Number: 201-550-6, CAS Number: 84-66-2)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Skin Irrit. 2 H315 , Acute Tox. 3 H331 , Acute Tox. 3 H311 , STOT SE 3 H335 , STOT RE 2 H373 , Repr. 2 H361 , Acute Tox. 4 H302 , STOT SE 3 H336 , Skin Sens. 1 H317 , Aquatic Chronic 1 H410

• **4-bromophenylphenylether** (EC Number: 202-952-4, CAS Number: 101-55-3)

Description/Comments: VOC; Data from C&L Inventory Database

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4 H302 , Skin Irrit. 2 H315 , Skin Sens. 1 H317 , Eye Dam. 1 H318 , Eye Irrit. 2 H319 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

• **carbazole** (EC Number: 201-696-0, CAS Number: 86-74-8)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;

Data source: <https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 02 Mar 2017

Hazard Statements: Acute Tox. 4 H302 , Skin Irrit. 2 H315 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Muta. 2 H341 , Carc. 2 H351 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410 , Acute Tox. 3 H331 , Acute Tox. 3 H311 , Acute Tox. 3 H301

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Worst case species based on hazard statements

beryllium {beryllium oxide}

Worst case species based on hazard statements

boron {boron tribromide/trichloride/trifluoride (combined)}

Worst case species based on hazard statements

cadmium {cadmium sulfide}

Worst case species based on hazard statements

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

Worst case species based on hazard statements

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

Worst case species based on hazard statements

copper {dicopper oxide; copper (I) oxide}

Most likely common species

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}

Worst case species

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

Worst case species based on hazard statements

mercury {mercury dichloride}

Worst case species based on hazard statements

nickel {nickel dihydroxide}

Worst case species based on hazard statements

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

Worst case species based on hazard statements

zinc {zinc oxide}

Worst case species based on hazard statements

vanadium {divanadium pentaoxide; vanadium pentoxide}

Worst case species based on hazard statements.

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.1, May 2018**
HazWasteOnline Classification Engine Version: 2021.219.4842.9201 (07 Aug 2021)
HazWasteOnline Database: 2021.219.4842.9201 (07 Aug 2021)

This classification utilises the following guidance and legislation:

WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
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 2019 - UK: 2019 No. 720 of 27th March 2019
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
POPs Regulation 2019 - Regulation (EU) 2019/1021 of 20 June 2019

Appendix G Preliminary Geotechnical Risk Register

Geotechnical Hazard Identification – Following Ground Investigation

The preliminary Geotechnical Risk Register following Ground Investigation is set out in the table below.

The probability and impact of a hazard have been judged on a qualitative scale as set out in Table J.2. The degree of risk (R) is determined by combining an assessment of the probability (P) of the hazard occurring with an assessment of the impact (I) of the hazard and associated mitigation it will require if it occurs ($R = P \times I$).

Table J.2: Qualitative assessment of hazards and risks

P = Probability		I = Impact		R = Risk Rating (P x I)	
1	Very unlikely (VU)	1	Very Low	1 – 4	None / negligible
2	Unlikely (U)	2	Low	5 – 9	Minor
3	Plausible (P)	3	Medium	10 – 14	Moderate
4	Likely (Lk)	4	High	15 – 19	Substantial
5	Very Likely (VLk)	5	Very High	20 – 25	Severe

Hazard	Comments	Who is at Risk	Consequence	Risk Before Mitigation			Actions Required
				P	I	R	
Uncontrolled Made Ground (variable strength and compressibility).	There is Made Ground associated with former landfilling and localised in other areas of the site	Structures	Bearing capacity failure, settlement (total and differential).	4	4	16	Removal of all Made Ground and re-engineering fill in accordance with a suitable design.
			Floor slab failure.	4	4	16	
		Roads and Pavements.	Settlement (total and differential) of roads and pavements.	4	3	12	
		Services.	Settlement (differential), causing damage to services.	4	2	8	
		Construction staff, vehicles and plant operators.	Trafficking of the site in temporary conditions. Overturning of plant during construction.	3	4	12	Where soft spots encountered, over-excavation and replacement with suitable fill. Construction of appropriate haul roads. Site inspection and watching brief by Contractor to review working platform frequently and regularly.

Hazard	Comments	Who is at Risk	Consequence	Risk Before Mitigation			Actions Required
				P	I	R	
Soft / loose ground (low strength and high settlement potential).	Low strength material recorded within the upper 2-3m of the Glacial Till including peat	Structures	Foundation bearing capacity failure, settlement (total and differential).	4	4	16	Over-excavation and replacement of low strength material within the influencing distance of the foundations i.e. on the cut/fill line.
			Floor slab failure.	4	4	16	
		Roads and Pavements.	Pavement failure	3	3	9	Design roads and pavements using suitable geotechnical parameters and increase the sub-base and use geo-grids as appropriate. Subgrade improvement with hydraulic binders
		Services.	Settlement (differential), causing damage to services.	4	3	12	Ground levels are being raised and settlements are anticipated to be significant. Ground improvement will be required to reduce post construction settlements to tolerable levels (see below).
		Construction staff, vehicles and plant operators.	Trafficking of the site in temporary conditions. Overturning of plant during construction.	3	4	12	Where soft spots encountered, over-excavate and replace with suitable fill. Design working platform to suit the ground conditions. Outline design of working platform to include geo-grid or stabilisation if necessary. Site inspection and watching brief by Contractor to review working platform frequently and regularly.
Shrinkage / swelling of the clay fraction of soils under the influence of vegetation.	The cohesive material is of low volume change potential however there may be trees remaining that are within influencing distance of foundations	Foundations.	Shrinkage or heave of soils and associated damage to foundations.	3	4	12	Design foundations to extend beyond the influence of trees that are remaining on site.
		Floor slabs.	Floor slab failure.	4	4	16	Over-excavation and removal of desiccated soils below floor slabs. Floor slabs to be cited a suitable distance from existing trees.

Hazard	Comments	Who is at Risk	Consequence	Risk Before Mitigation			Actions Required
				P	I	R	
Shallow groundwater	Monitoring during the ground investigations has proven a shallow groundwater table within 2m of ground level	Construction staff, vehicles and plant operators.	Difficulty with excavation.	3	3	9	Contractor to appoint competent Temporary Works Designer to design temporary works, in accordance with BS 5975:2008+A1:2011. Temporary Works Designer to consider in their analysis the impact of, and requirements for, de-watering of excavations. Any water that collects at the base of excavations to be removed as soon as practicable. A granular starter layer may be required where water cannot be removed.
			Limit state failure, excessive deformation, trafficking of site plant, inability to place and compact fill.				
		Subgrades	Reduction in subgrade strength in cuttings where groundwater intercepted.	3	3	9	
		Slopes and Retaining walls.	Serviceability issues.	3	2	6	The shallow groundwater is to be taken into account during geotechnical design of the permanent works. Cutting faces may require additional drainage to control seepages and prevent surface erosion.
Slope stability issues – General Slopes.	The proposed development requires slopes to be formed as part of the cut to fill.	Structures	Serviceability issues due to slope failure	4	4	16	Safe slope angles to be assessed during design. Engineered fill requirements to be defined at outline design stage. Slope face reduction where slopes are very high. Drainage requirements to be assessed during design. Slopes to be constructed at a safe angle.
		Roads and Pavements.		4	3	12	
		Services		4	2	8	
Slope stability issues – retaining walls.	The proposed development requires retaining walls to be constructed.	Structures	Serviceability issues.	4	4	16	Design of the retaining to be undertaken in accordance with EC7. Adequate drainage to be designed behind the structure, or for water seepage through the face of the wall. Lateral earth pressure parameters to be characterised during investigation and design. Engineered fill requirements to be defined at outline design stage. Temporary works design required as part of the construction sequence.
		Pavement construction and long-term durability highways and external areas.	Serviceability issues.	4	3	12	

Hazard	Comments	Who is at Risk	Consequence	Risk Before Mitigation			Actions Required
				P	I	R	
Earthworks – Settlement (due to placement of fill on soft / ground)	The ground conditions at the site include up to 8m of compressible Glacial Till. Levels are increasing across parts of the site to allow level development platforms	Structures	Serviceability failure	5	4	20	Removal of peat and organic soils. Installation of PVD prior to placement of fill. Settlement monitoring. Horizontal drainage layers within fill. No construction permitted until sufficient consolidation has been induced.
			Settlement (total and differential), of roads and pavements.	5	3	15	
		Services.	Settlement (differential), causing damage to services.	4	3	12	
Earthworks – poor bearing capacity and / or settlement of new fill.	There is a requirement for cut to fill to create the development platform and filling of remediation excavations. This will require reuse of soils excavated from the site.	Structures	Settlement (total and differential).	4	4	16	Design of engineered fill to support structures. Source approval and insitu testing of all engineered fill. Installation of horizontal drainage to increase the rate of self-weight settlement. Treat fill with hydraulic binder to improve strength and stiffness.
		Services.	Settlement (differential), causing damage to services.	4	3	12	Minimum engineering performance to be defined in an Earthworks Specification. Earthworks to be designed in accordance with
		External areas	Settlement (differential), in yards.	4	3	12	1) Manual of Contract Documents for Highway Works (MCHW), Volume 1; 2) Specification for Highway Works (SHW) Series 600; 3) 6031:2009, Code of practice for earthworks; and 4) BS 8000-1, workmanship on building sites.
		Construction staff, vehicles and plant operators.	Trafficking of the site in temporary conditions. Overturning of plant during construction.	4	3	12	Site testing to be undertaken to confirm the works are in accordance with the design. A suitable watching brief and independent verification.
Earthworks – Unsuitability of site won material to be reused as fill.	There is a requirement for cut to fill to create the development platform and filling of remediation excavations.	Project Budgets - Insufficient fill to complete earthworks.	Additional Costs, due to importation of fill or having to modify designs.	4	2	8	The design is to describe the processes required to produce suitable fill for reuse. Contractor to design site control measures, plant, equipment and arrangement to comply with processing requirements. Site testing to be undertaken to confirm the works are in accordance with the design. A suitable watching brief and independent verification.

Hazard	Comments	Who is at Risk	Consequence	Risk Before Mitigation			Actions Required
				P	I	R	
	This will require reuse of soils excavated from the site.						Adequate investigation required of soil types and characterisation of the soils to be undertaken during investigation. Some fill may be unsuitable for use.
Mining.	The site is within an area at risk from underground mine workings. A known mine entry is located on site.	Structures	Subsidence and serviceability issues	4	5	20	Further investigation has been undertaken to define the extent of potential coal workings in the Cannel seam. Evidence of workings was not found in the additional investigation. Previous indications of possible workings are deemed to have been highly fractured rock/coal strata. No treatment / mitigation measures are required to the shallow seams beneath the site. Stabilisation and capping of the mine entry in accordance with CIRIA publication C758D, 'Abandoned Mine Workings Manual' and 'Structural Foundations Manual for Low Rise Buildings' (Atkinson).
		Services.	Damage to services. Leaking drainage causing inundation and further collapse.	4	3	12	
Unforeseen ground conditions - risk associated with limited data.	Ground conditions are only defined at exploratory hole locations.	All parts of the site		2	4	12	Ground investigation has been undertaken. However, additional information will be obtained during construction. Any unexpected ground conditions reported to the engineer and additional design may be required. Unrecorded mine shafts may be present as there are known (albeit deep) workings below the site.

Whilst the probability and impact of the hazard occurring can be reduced to a minimum by geotechnical design, the impact cannot be reduced below very low. The risk register will need to be up-dated, as necessary, to reflect design, additional information, data and experience as it is gained through the construction process. Impacts of the design with regard to health and Safety considerations will need to be included by the designer at design stage.

Appendix H Plausible Source-Pathway- Receptor Contaminant Linkages

Summary of Potential Contaminant Linkages

Table K.2 lists the plausible contaminant linkages which have been identified. These are considered as potentially unacceptable risks in line with guidelines published in LCRM (2019) and additional risk assessment is required.

Source – Pathway – Receptor Linkages have been assessed in general accordance with guidance in CIRIA Report C552 (Rudland et al 2001) but modified to add a ‘no linkage’ category and to remove low/moderate risk (See Table K.1). Further information is given in the relevant Hydrock methodology, referenced in 0, including descriptions of typical examples of probability and consequences.

It should be noted that whilst the risk assessment process undertaken in this report may identify potential risks to site demolition and redevelopment workers, consideration of occupational health and safety issues is beyond the scope of this report and need to be considered separately in the Construction Phase Health and Safety Plan.

Table K.1: Consequence versus probability assessment.

		Consequence			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very high risk	High risk	Moderate risk	Low risk
	Likely	High risk	Moderate risk	Low risk	Very low risk
	Low Likelihood	Moderate risk	Low risk	Low risk	Very low risk
	Unlikely	Low risk	Very low risk	Very low risk	Very low risk
	No Linkage	No risk			

Table K.2: Exposure model – final source-pathway-receptor contaminant linkages

Sources	Possible Pathways	Receptors	Probability	Consequence	Risk Level	Comments
Methane and Carbon Dioxide from biodegradable matter in the Landfill material.	Migration, build up and asphyxiation and explosion.	Site users. Neighbours. Buildings on site.	Likely	Medium to Severe	Moderate to High	Monitoring has indicated elevated concentrations of Methane and Carbon Dioxide in the vicinity of landfill areas. The landfill areas are provisionally classed as Characteristic Situation 3. As part of the sites reprofiling to create the required development platform the landfill material is to be excavated, sorted to remove organic constituents with suitable material reused on site away from buildings and infrastructure. Supplementary monitoring is required post-earthworks to confirm the Characteristic Situation and appropriate mitigation measures.
Methane and Carbon Dioxide from the mineshaft.			Likely	Medium to Severe	Moderate to High	Monitoring data has indicated elevated concentrations of Methane and Carbon Dioxide in the vicinity of the Mineshaft. It is anticipated the mineshaft will be treated, which is expected to change the ground gas regime in this area of the site. Supplementary monitoring in this area of the site is required post-earthworks to confirm the Characteristic Situation and appropriate mitigation measures.
Carbon dioxide from the Glacial Till and PLCM.	Migration, build up and asphyxiation.	Site users.	Unlikely	Severe	Low to moderate	Monitoring has indicated elevated concentrations of Carbon Dioxide. The Glacial Till and PLCM are provisionally classed as Characteristic Situation 2. Lower risk due to low flow rate and carbon dioxide concentrations. Supplementary monitoring is required post-earthworks to confirm the Characteristic Situation and appropriate mitigation measures.

Appendix I

Hydrock Methodologies

This report uses Hydrock Desk Study and Ground Investigation template V47.1.

This appendix provides additional background information on certain approaches and methods used by Hydrock Consultants Limited in the preparation of this report.

The following Hydrock Methodologies apply to this report. These are not included, but are available on request by quoting the methodology reference, revision and date.

Reference	Name	Revision	Date
001	Desk Study	001	30/07/2018
002	Ground Investigation	001	30/07/2018
005	Generic Risk Assessment for Human Health (Soils)	001	30/07/2018
006	Generic Risk Assessment for Pollution of Controlled Waters	001	30/07/2018
009	Generic Risk Assessment for Water Supply Pipes	001	30/07/2018
010	Generic Ground Gas Risk Assessment	001	30/07/2018
011	Determination of Contaminated Land Under Part 2A of the Environmental Protection Act 1990	001	30/07/2018
012	Waste Management	001	30/07/2018
013	Materials Management	001	30/07/2018
014	Asbestos in Soils	001	30/07/2018
015	Remediation and Mitigation (New Methodology)	001	30/07/2018
016	Geotechnical Categorization and Characteristic Design Values	001	30/07/2018
018	Foundation and Floor Slab Recommendations – Commercial / Distribution	001	30/07/2018
019	Earthworks Suitability Recommendations	001	30/07/2018
020	Pavements and Pavement Foundations	001	30/07/2018
023	Sulphate Recommendations	001	30/07/2018