

Permit Reference Number: BU2349

Operator: Synthite Limited

Installation: Mold Chemicals (Alyn Works)

Form Number: A1

Reporting of Emissions to Air for the period from 01/10/19 to 31/12/19

Emissions to Air							
Emission Point	Substance / Parameter	Emission Limit Value [6]	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
A1	Dimethylamine	5mg/m3	<1.2	Gastec tube	06/11/19	None	25%
A2	Ammonia	10mg/m3	o/c	-	-	-	-
A3	Propionic Acid (Measured as VOC Toluene)	10mg/m3	0.2	VOC meter	21/10/19	None	25%
A4	Formic Acid (Measured as VOC Toluene)	10mg/m3	0.2	VOC meter	21/10/19	None	25%
A5	Ammonia	10mg/m3	0.2	Gastec tube	21/10/19	None	25%
A5	Formic & Propionic Acid (Measured as VOC Toluene)	10mg/m3	0.3	VOC meter	21/10/19	None	25%
A6	Ammonia	10mg/m3	0.3	Gastec tube	21/10/19	None	25%
A6	Formic Acid (Measured as VOC Toluene)	10mg/m3	0.8	VOC meter	21/10/19	None	25%
A7	Formaldehyde	2mg/m3	0	DNPH/HPLC	06/11/19	None	30%
A7	Acrylamide	5mg/m3	o/c	-	-	-	-
A7	Acrylic Acid	5mg/m3	o/c	-	-	-	-
A7	Ammonia	10mg/m3	0	Gastec tube	06/11/19	None	25%
A7	Sulphur Dioxide	50mg/m3	o/c	-	-	-	-
A7	n – Decane (Measured as VOC Toluene)	20mg/m3	0.7	VOC meter	06/11/19	None	25%
A8	Formaldehyde	5mg/m3	0.6	DNPH/HPLC	06/11/19	None	30%
A8	Methanol	40mg/m3	7.7	VOC meter	06/11/19	None	25%
A8	Dimethylamine	5mg/m3	<1.2	Gastec tube	06/11/19	None	25%

Operator : Synthite Limited Form Number : A1 continued							
A9	n – Decane (Measured as VOC Toluene)	10mg/m3	o/c	-	-	-	-
A10	Formaldehyde	5mg/m3	0.3	DNPH/HPLC	11/12/19	None	30%
A10	Methanol	1mg/m3	0.3	Gastec tube	11/12/19	None	25%
A11	Ammonia	10mg/m3	4.4	Gastec tube	11/12/19	None	25%
A11	Formaldehyde	5mg/m3	0.3	DNPH/HPLC	11/12/19	None	30%
A11	Methanol	1mg/m3	0.2	Gastec tube	11/12/19	None	25%
A12	Formaldehyde	5mg/m3	0.7	DNPH/HPLC	11/12/19	None	30%
A12	Methanol	5mg/m3	0.3	Gastec tube	11/12/19	None	25%
A13	Methanol	0.5kg/hr [7]	0.1	Estimated	01/10/19 to 31/12/19	N/A	Not Known
A14	Methanol	0.5kg/hr [7]	0.1	Estimated	01/10/19 to 31/12/19	N/A	Not Known
A15	Formaldehyde	5mg/m3	0.7	DNPH/HPLC	11/12/19	None	30%
A15	Methanol	5mg/m3	0.5	Gastec tube	11/12/19	None	25%
A16	Formaldehyde	5mg/m3	0.2	DNPH/HPLC	11/12/19	None	30%
A16	Methanol	40mg/m3	0.3	VOC meter	11/12/19	None	25%
A16	Nitrogen Dioxide	50mg/m3	15.2	Gastec tube	11/12/19	None	25%
A17	Nitrogen Dioxide	150mg/m3	12.7	Gastec tube	12/12/19	None	25%
A18	Formaldehyde	5mg/m3	0.2	DNPH/HPLC	27/11/19	None	30%
A18	Methanol	20mg/m3	0.3	VOC meter	27/11/19	None	25%

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given.

[4] The accreditation status of the equipment and/or the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.

[5] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

[6] The emission limit values are expressed as instantaneous and corrected to 273K, 101.3kPa and in relation to gases from combustion processes 3% oxygen, dry (for gaseous fuels).

[7] Taken as average vent concentration multiplied by the volume of expressed air and actual number of deliveries.

Signed ...



(JM).....

Date...17/01/20...

(Authorised to sign as representative of the Operator)

Permit Reference Number: BU23349

Installation: Mold Chemicals (Alyn Works)

Operator: Synthite Limited

Form Number: W1

Reporting of Emissions to Water (other than to Sewer) for the period from 01/10/18 to 31/12/18

Emissions to Water							
Emission Point	Substance / Parameter	Emission Limit Value [6]	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
W1	pH	6.0 – 8.5 [7]	6.9, 8.4	pH meter	13/11/19, 29/11/19	None	20%
	BOD	10mg/l	1	ISO5815:1989	13/11/19	None	20%
	Suspended Solids	20mg/l	Nil	GFA ISO11929:1997	All samples within quarter	None	20%
	Formaldehyde	0.25mg/l	0.08	DNPH/HPLC	23/10/19	None	30%
	Ammonia (Unionised as N)	5mg/l	0.74	Ion Selective Electrode	16/10/19	None	
	Temperature	25°C	14	Calibrated thermometer	08/10/19	None	20%
	Volumetric Flow Rate	700m3/day [8]	525	28/10/19	28/10/19	None	20%
River Monitoring							
R. Alyn SJ 2363 6487	pH	n/a	8.4	pH meter	23/10/19	None	20%
	Formaldehyde	n/a	0.11	DNPH/HPLC	23/10/19	None	30%

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. colorimetry.

[3] For non-continuous measurements the date and time of the sample that produced the result is given.

[4] The accreditation status of the equipment and/or the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.

[5] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

[6] The emission limit values are expressed as instantaneous.

[7] The emission limit values for pH are expressed as minimum and maximum individual values.

[8] The emission limit value for volumetric flow rate is expressed as a daily maximum (not to exceed 30m3/hour).

Signed ...



(JM).....

Date...17/01/20...

(authorised to sign as representative of the Operator)

Permit Reference Number: BU23349

Operator: Synthite Limited

Installation: Mold Chemicals (Alyn Works)

Form Number: S1

Reporting of Emissions to Sewer for the period from 01/10/18 to 31/12/18

Emissions to Sewer							
Emission Point	Substance / Parameter	Emission Limit Value [6]	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
S1	pH	5 – 9 [7]	7.1, 8.6	pH Meter	13/11/19, 18/12/19	None	20%
	Suspended solids	400mg/l	298	GFA ISO11929:1997	11/10/19	None	20%
	Formaldehyde	10mg/l	8.54	DNPH/HPLC	18/12/19	None	30%
	Methanol	10mg/l	0.6	Gas Chromatography	15/11/19	None	20%
	Ammonia (Unionised as N)	50mg/l	37.3	Ion Selective Electrode	20/12/19	None	
	COD	800mg/l	492	Dichromate ISO6060:1989	11/10/19	None	20%
	Grease and Oils	10mg/l	Nil	Gas Chromatography	All samples within quarter	None	20%
	Volumetric Flow Rate	300m ³ /day [8]	300	Meter (ISBN 011752364X)	30/10/19	None	20%
	Temperature	43°C	24	Calibrated Thermometer	30/12/19	None	20%
Other Monitoring Points			Result [9]				
B/H1	Groundwater level	n/a	3.24	Dip Tape	19/12/19	None	10%
	Formaldehyde	n/a	<0.05	DNPH/HPLC	19/12/19	None	30%
B/H8	Groundwater level	n/a	1.30	Dip Tape	19/12/19	None	10%
	Formaldehyde	n/a	<0.05	DNPH/HPLC	19/12/19	None	30%
B/H9	Groundwater level	n/a	2.16	Dip Tape	19/12/19	None	10%
	Formaldehyde	n/a	0.19	DNPH/HPLC	19/12/19	None	30%
B/H10	Groundwater level	n/a	2.45	Dip Tape	19/12/19	None	10%
	Formaldehyde	n/a	0.08	DNPH/HPLC	19/12/19	None	30%
B/HA	Groundwater level	n/a	2.38	Dip Tape	19/12/19	None	10%
	Formaldehyde	n/a	<0.05	DNPH/HPLC	19/12/19	None	30%

Emission Point	Substance / Parameter	Emission Limit Value [6]	Result [9]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
B/HB	Groundwater level	n/a	1.79	Dip Tape	19/12/19	None	10%
	Formaldehyde	n/a	<0.05	DNPH/HPLC	19/12/19	None	30%
SP4	Groundwater level	n/a	1.33	Dip Tape	19/12/19	None	10%
	Formaldehyde	n/a	<0.05	DNPH/HPLC	19/12/19	None	30%
Culvert Pump	Formaldehyde	n/a	<3	Titration using sulphite method	All samples within quarter	None	30%

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. colourimetry.

[3] For non-continuous measurements the date and time of the sample that produced the result is given.

[4] The accreditation status of the equipment and/or the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.

[5] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

[6] The emission limit values are expressed as instantaneous.

[7] The emission limit values for pH are expressed as minimum and maximum individual values.

[8] The emission limit value for volumetric flow rate is expressed as a daily maximum.

[9] Readings are in metres below the respective borehole surface.

Signed ...



(JM)..... Date...17/01/20...

(Authorised to sign as representative of the Operator)

Permit Reference Number: BU2349

Operator: Synthite Limited

Installation: Mold Chemicals (Alyn Works)

Form Number: R1

Reporting of Waste Disposal and Recovery for the year 2018

Waste Disposal & Recovery			
Waste Description	Disposal		Recovery
	Route	Tonnes	Tonnes
1) Hazardous Wastes (EWC)			
060204	D9	697.54	
150110	R4/R13		24.348
170605	D5/D10	13.4	
070108	D10	17.56	
160508	R13		7.82
130205	R13		1.691
160213	D15	2	
Total hazardous waste		730.5	33.859
2) Non-Hazardous Wastes (EWC)			
190904	R7		4.2
200301	D1	52.039	
200138	R1		8.13
200101	R4		6.392
170604	D1	1.296	
200140	R4		9.3
150103	R1		10.37
150101	R4		14.14
020104	D1	6	
170101	D1	42	
200139	D1	1.18	
Total non-hazardous waste		102.515	52.532
TOTAL WASTE		833.015	86.391

Trends in Waste Disposal and Recovery				
Year	Parameter			
	Haz	Non-Haz	Total Waste	Waste per unit output
2004	579	2,809	3389	0.025
2005	438	390	828	0.005
2006	274	748	1,057	0.006
2007	303	392	664	0.003
2008	306	456	762	0.003
2009	108	413	521	0.003
2010	67	162	230	0.001
2011	575	214	789	0.003
2012	952	113	1065	0.005
2013	344	64	407	0.002
2014	330	100	430	0.002
2015	362	96	458	0.003
2016	612	75	687	0.004
2017	590	65	655	0.004
2018	453	148	600	0.004
2019	764	155	919	0.005

Operator's comments :

Signed ...  (JM).....

Date...17/01/20... (Authorised to sign as representative of the Operator)

Permit Reference Number: BU2349

Operator: Synthite Limited

Installation: Mold Chemicals (Alyn Works)

Form Number: WU1

Reporting of Water Usage for the year 2018

Water Usage		
Water Source	Usage (m ³)	Specific Usage (m ³ /t)
Mains water	237,543	
Borehole	0	
TOTAL WATER USAGE	237,543	

Trends in Water Usage				
Year	Parameter			
	Mains water	Boreholes	Total Water usage	Water per unit output
2004	210,558	78,612	289,170	2.14
2005	172,031	83,600	255,631	1.64
2006	145,004	93,392	238,396	1.49
2007	159,226	88,712	247,939	1.22
2008	160,359	57,944	218,303	0.95
2009	133,162	64,965	198,126	0.97
2010	147,159	57,064	204,222	0.80
2011	172,442	20,173	192,616	0.83
2012	111,323	63,635	174,958	0.74
2013	127,394	110,043	237,437	1.07
2014	137,550	44,420	181,970	0.79
2015	143,692	47,937	191,629	1.05
2016	117,669	53,166.6	170,835.6	1.09
2017	153,818	48,964.22	202782.22	1.22
2018	167,174	8,462	175,636	1.05
2019	237,543	0	237,543	1.20

Operator's comments :

Signed ...



(JM).....

Date...17/01/20...

(Authorised to sign as representative of the Operator)

(Authorised to sign as representative of the Operator)