

Permit Reference Number: BU2349

Operator: Synthite Limited

Installation: Mold Chemicals (Alyn Works)

Form Number: A1

Reporting of Emissions to Air for the period from 01/01/18 to 31/03/18

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	14/02/18	None	25%
A2	Ammonia	10mg/m3	o/c	-	-	-	-
A3	Propionic Acid (Measured as VOC Toluene)	10mg/m3	1.1	VOC meter	30/01/18	None	25%
A4	Formic Acid (Measured as VOC Toluene)	10mg/m3	1.4	VOC meter	30/01/18	None	25%
A5	Ammonia	10mg/m3	<0.2	Gastec tube	30/01/18	None	25%
A5	Formic & Propionic Acid (Measured as VOC Toluene)	10mg/m3	1.3	VOC meter	30/01/18	None	25%
A6	Ammonia	10mg/m3	<0.2	Gastec tube	30/01/18	None	25%
A6	Formic Acid (Measured as VOC Toluene)	10mg/m3	1.6	VOC meter	30/01/18	None	25%
A7	Formaldehyde	2mg/m3	0	DNPH/HPLC	14/02/18	None	30%
A7	Acrylamide	5mg/m3	o/c	-	-	-	-
A7	Acrylic Acid	5mg/m3	o/c	-	-	-	-
A7	Ammonia	10mg/m3	0	Gastec tube	14/02/18	None	25%
A7	Sulphur Dioxide	50mg/m3	o/c	-	-	-	-
A7	n – Decane (Measured as VOC Toluene)	20mg/m3	0	VOC meter	14/02/18	None	25%
A8	Formaldehyde	5mg/m3	01.1	DNPH/HPLC	14/02/18	None	30%
A8	Methanol	40mg/m3	13.2	VOC meter	14/02/18	None	25%
A8	Dimethylamine	5mg/m3	<1.1	Gastec tube	14/02/18	None	25%

Operator : Synthite Limited Form Number : A1 continued							
A9	n – Decane (Measured as VOC Toluene)	10mg/m3	o/c	-	-	-	-
A10	Formaldehyde	5mg/m3	0.8	DNPH/HPLC	14/02/18	None	30%
A10	Methanol	1mg/m3	<0.3	Gastec tube	14/02/18	None	25%
A11	Ammonia	10mg/m3	7.1	Gastec tube	14/02/18	None	25%
A11	Formaldehyde	5mg/m3	0.5	DNPH/HPLC	14/02/18	None	30%
A11	Methanol	1mg/m3	<0.3	Gastec tube	14/02/18	None	25%
A12	Formaldehyde	5mg/m3	0.8	DNPH/HPLC	14/02/18	None	30%
A12	Methanol	5mg/m3	<0.4	Gastec tube	14/02/18	None	25%
A13	Methanol	0.5kg/hr [7]	0.1	Estimated	01/01/18 to 31/03/18	N/A	Not Known
A14	Methanol	0.5kg/hr [7]	0.1	Estimated	01/01/18 to 31/03/18	N/A	Not Known
A15	Formaldehyde	5mg/m3	2.9	DNPH/HPLC	14/02/18	None	30%
A15	Methanol	5mg/m3	0.9	Gastec tube	14/02/18	None	25%
A16	Formaldehyde	5mg/m3	0.6	DNPH/HPLC	14/02/18	None	30%
A16	Methanol	40mg/m3	1.2	VOC meter	14/02/18	None	25%
A16	Nitrogen Dioxide	50mg/m3	0.7	Gastec tube	14/02/18	None	25%
A17	Nitrogen Dioxide	150mg/m3	1.2	Gastec tube	14/02/18	None	25%
A18	Formaldehyde	5mg/m3	0.8	DNPH/HPLC	14/02/18	None	30%
A18	Methanol	20mg/m3	0.7	VOC meter	14/02/18	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 ...  .....

Date...17/04/2018.....

(Authorised to sign as representative of the Operator)

Permit Reference Number: BU23349

Operator: Synthite Limited

Installation: Mold Chemicals (Alyn Works)

Form Number: W1

## Reporting of Emissions to Water (other than to Sewer) for the period from 01/01/18 to 31/03/18

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 – 8.1	pH meter	22/02/18, 28/02/18	None	20%
	BOD	10mg/l	10	ISO5815:1989	10/01/18	None	20%
	Suspended Solids	20mg/l	Nil	GFA ISO11929:1997	All samples within quarter	None	20%
	Formaldehyde	0.25mg/l	0.22	DNPH/HPLC	21/02/18	None	30%
	Ammonia (Unionised as N)	5mg/l	0.5	Ion Selective Electrode	28/03/18	None	
	Temperature	25°C	13	Calibrated thermometer	24/01/18	None	20%
	Volumetric Flow Rate	700m3/day [8]	579	Meter (ISBN 011752364X)	12/02/18	None	20%
River Monitoring							
R. Alyn SJ 2363 6487	pH	n/a	7.6 – 8.7	pH meter	21/02/18, 07/02/18	None	20%
	Formaldehyde	n/a	0.2	DNPH/HPLC	21/02/18	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 ...

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Date ...17/04/2018.....

(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 01/01/18 to 31/03/18

<b>Emissions to Sewer</b>							
<b>Emission Point</b>	<b>Substance / Parameter</b>	<b>Emission Limit Value [6]</b>	<b>Result [1]</b>	<b>Test Method [2]</b>	<b>Sample Date and Times [3]</b>	<b>Accreditation/ Certification [4]</b>	<b>Uncertainty [5]</b>
S1	pH	5 – 9 [7]	6.9 – 8.7	pH Meter	05/03/18, 19/01/18	None	20%
	Suspended solids	400mg/l	141	GFA ISO11929:1997	16/02/18	None	20%
	Formaldehyde	40mg/l	9.7	DNPH/HPLC	28/02/18	None	30%
	Methanol	40mg/l	Nil	Gas Chromatography	All samples within quarter	None	20%
	Ammonia (Unionised as N)	25mg/l	22.7	Ion Selective Electrode	05/01/18	None	20%
	COD	1500mg/l	361	Dichromate ISO6060:1989	15/01/18	None	20%
	Grease and Oils	10mg/l	0	Gas Chromatography	All samples within quarter	None	20%
	Volumetric Flow Rate	300m <sup>3</sup> /day [8]	275	Meter (ISBN 011752364X)	09/01/18	None	20%
	Temperature	40°C	30	Calibrated Thermometer	05/01/18	None	20%
<b>Other Monitoring Points</b>			<b>Result [9]</b>				
B/H1	Groundwater level	n/a	3.59	Dip Tape	22/02/18	None	10%
	Formaldehyde	n/a	0.08	DNPH/HPLC	22/02/18	None	30%
B/H8	Groundwater level	n/a	1.24	Dip Tape	22/02/18	None	10%
	Formaldehyde	n/a	0.21	DNPH/HPLC	22/02/18	None	30%
B/H9	Groundwater level	n/a	2.91	Dip Tape	22/02/18	None	10%
	Formaldehyde	n/a	0.29	DNPH/HPLC	22/02/18	None	30%
B/H10	Groundwater level	n/a	2.59	Dip Tape	22/02/18	None	10%
	Formaldehyde	n/a	0.11	DNPH/HPLC	22/02/18	None	30%
B/HA	Groundwater level	n/a	2.76	Dip Tape	22/02/18	None	10%
	Formaldehyde	n/a	0.14	DNPH/HPLC	22/02/18	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	6.51	Dip Tape	22/02/18	None	10%
	Formaldehyde	n/a	0.08	DNPH/HPLC	22/02/18	None	30%
SP4	Groundwater level	n/a	1.47	Dip Tape	22/02/18	None	10%
	Formaldehyde	n/a	0.09	DNPH/HPLC	22/02/18	None	30%
Culvert Pump	Formaldehyde	n/a	330	Titration using sulphite method	14/03/18	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 ...  .....

Date...17/04/2018.

(Authorised to sign as representative of the Operator)