



IPC Enforcement Section,
EPA
Dublin Regional Inspectorate
Richview
Clonskeagh Road
Dublin 14.
28-03-14

ANNUAL ENVIRONMENTAL REPORT.

Calendar Year: 2013

Licence No. P0058-02 Location; Kayfoam Woolfson
Bluebell Ind. Estate.
Dublin 12.

Activity; The company manufactures approximately 4500 tonnes of Flexible polyurethane foam annually for the furniture and bedding markets. A conversion unit shapes the foam to the requirements of our customers. Also on the site is an operation for manufacturing thermally bonded polyester wadding.

The company accepts back from its customers waste trimming of foam and recycles these into re-constituted chipfoam, or bales it for sale to the USA and U.K where it is converted into carpet backing.

The activity remains unchanged from 2012.

Kayfoam Woolfson T/A Kaymed, Bluebell Industrial Estate, Naas Road, Dublin 12. Ireland.

Tel: +353 1 4192999 Fax: +353 1-4568196

Kayfoam Woolfson T/A Kaymed, Dublin Road, Kilcullen, Co. Kildare Tel: +353-45-481332 Fax: +353-45-481023

www.kaymedworld.com

Registered address: Kayfoam Woolfson, Bluebell Industrial Estate, Naas Road, Dublin 12. Ireland. Registered Number 23530 VAT Number IE9Z45787C

Summary Information;

Emissions to waters/sewer;

There are no emissions to waters/sewer other than surface rainwater and human sewage. Samples of water from surface water drains are tested regularly in accordance with the terms of our IPC licence. This water is rainwater falling on the hardstand surface and roofs of the facility. It is tested for pH and TOC. The range of pH measured is typically between 6.0 and 9.0. TOC levels are typically low and range from 10 to 30 mg/L.

Emissions to Atmosphere;

Parameter	Mass Emission (2012)	Mass Emission (2013)	Licensed Mass Emission
Toluene Di-isocyanate	27kg	18kg	0.15 kg/day

Agency Monitoring and Enforcement;

Since the inception of this licence in 1996 the Agency has monitored the stack emissions on several occasions. All results were compliant with the terms of the licence. The most recent EPA monitoring was in Oct 2012 and the most recent independent monitoring by an accredited test house was in Feb-2014.

All results and emissions are well below licensed limits.

Energy and water consumption;

Water is not used in any of the processes. Energy requirements are satisfied with natural gas, electricity and gas oil.

Consumption	Year 2012	Year 2013
Light fuel oil	170 MW	172 MW
Natural Gas	2350MW	2403 MW
Electricity	820MW	838MW
Total	3340 MW	3413 MW

There has been a 2.2% increase in energy consumption in 2013 vs. 2012.

Environmental Incidents;

There were no incidents in 2013.

Management of the Activity.

Objectives and targets;

Objective	Target.
Reduce further our purchase of chemicals in drum stock	Transfer purchases to IBC containers where feasible
Reduce Waste going to landfill.	5% reduction in 2014
Reduce Energy consumption.	2% reduction in 2014



EMP (Report)

Monitoring;

Emissions to air and site surface water were monitored and reported to the Agency. All results were compliant with the licence requirements.

Complaints;

There were no complaints in 2013

Training;

All relevant personnel are kept informed of our obligations under the terms of our IPC licence. These include the General Manager, Foaming Manager, Engineering Manager, Foaming Supervisor, Health and Safety Manager and Managing Director. The companies training programme which forms part of its accreditation to ISO 9001 includes instruction for relevant personnel in the IPC requirements.

Liquid Waste;

There is no liquid waste produced by the operation other than sewage, which is discharged to the foul drainage system.

Noise;

The operation produces no discernable noise and no abatement is required.

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EMISSIONS;

The use of Dichloromethane as a blowing agent in foam was eliminated completely in 2007. This was achieved by a shift in the type of foams produced from low-density types to higher density where no auxiliary blowing agents are necessary. This is in line with the companies move into higher value products. The only emission now to atmosphere from the plant is very low levels of isocyanate.

Waste;

Waste, at 156 tonnes sent to landfill was a 20% reduction compared to the 2012 figure. The high cost of landfill disposal will always act as an incentive to reduce waste generation. The waste is always mixed municipal waste and details for 2013 have been reported in our PRTR worksheet. Our obligations under the Waste Management Act is being fulfilled by registration with Repak, which levies industry in proportion to the weight of packaging material put into the domestic market.

The company has switched several of its drum stock purchases of chemicals to one tonne IBC containers. These are collected periodically and returned to the suppliers.

Energy;

The foam plant, which is the subject of the IPC Licence, uses very little energy. There is no space heating and power is only used to drive pumps and conveyors during the actual production which lasts for approximately 90 minutes each day. The vast majority of energy consumed is by the other operations on the site. Natural gas feeds the thermal bonding ovens and steam generator and all of the space heating.

Gas oil supplies fork trucks and transport and electricity supplies motive power and lighting. The thermal bonding operation has been expanded with higher output equipment and we can expect to see energy demand increase here if outputs rise. More efficient ovens have been installed and this should mitigate any increase. Due to a Pickup in activity at the site in 2013 our energy requirement increased by 2.2% Approx.

EMP (PROPOSAL)

Emissions.

This operation no longer emits Dichloromethane to atmosphere.

The only emission now is the small amount of isocyanate that occurs during the 90 minutes of foaming that takes place each day. Isocyanates react with moisture in the environment to form benign polyureas. This emission is in decline due to the type of foam that is now being produced. A recent emission check by the EPA In Oct 2012 showed very low levels, well below the ELV. Recent independent inspections also confirm the levels are extremely low.

Energy;

It is operations other than the foaming process that are driving energy demand and any expansion of these operations will see our energy requirements rise. Notwithstanding this a process of improving the efficiency of equipment used is ongoing. An energy audit has been commissioned to outside consultants and its recommendations are being considered for implementation. A new automatic block handling system has been installed which has eliminated much of the forklift operations. This is now fully operational. A new state of the art bonding oven has replaced an older less efficient type. These changes will see greater efficiency in gas usage and productivity.

The company has converted all space heating from diesel to natural gas and we can expect to see a significant reduction in gas oil consumption and also the requirement to hold large stocks of diesel.

The company continues to monitor electricity consumption and wattless power load and has installed the necessary power-factor correction equipment to ensure efficient operation.

Waste;

The company produces only dry solid non-toxic mixed municipal waste that is sent to a recycler for segregation and land filling. The bulk of this waste is generated from operations on the site, which are not the subject of the IPPC licence. The actual waste going to landfill is considerably less than this since it goes through a selection and recycling process after collection. Activity on this site has been increasing over the years and in as a result of the Packaging Directive many of our customers are returning their off-cuts and trimmings to us for recycling. These can be converted back into chip foam or baled for export. It is a raw material that has value and is sold, so is not considered as waste but some of the returned material can be soiled and must be dumped. This has an impact on our own efforts to reduce the quantity of waste this site generates, but the overall effect of this recycling is that less waste ends up in landfill.

Residuals Management;

The operation consists of a collection of bulk storage tanks for liquid chemicals, various pumps, a reaction mixer and an array of conveyors to transport the manufactured foam away from the reaction point. The process is one-shot, i.e., there is no intermediate reaction stage; the chemicals go from their initial liquid state to a solid flexible foam within minutes of mixing. The process produces no solid or liquid waste. There are no emissions to ground, surface waters or sewers. No toxic waste is produced or stored on site.

Decommissioning this plant would be straightforward and would leave no environmental footprint. Stocks of bulk chemicals could be arranged and run down in such a manner that the entirety of them could be converted to saleable foam. It would be inevitable that in such a situation small quantities of surfactant, pigments and catalysts would remain but any left over in sealed containers would be accepted back by the suppliers.

The quantity that may have to be disposed of by means of an authorised chemical waste treatment operator would in any event be very small, less than 200 Kilos.

There is a constant and worldwide demand for foam processing equipment such as exists in Kayfoam. Any unsaleable equipment would have a scrap metal value.

There are no hazardous wastes stored on site such as transformers containing PCBs.

An examination of this operation will show that the decommissioning of residuals would not be an issue.

Prevention of Environmental Damage;

The main risks that this operation could present to the environment are through accidental fire or chemical spillage.

The entire factory, both warehousing and production areas, are protected by a pressurised water sprinkling system supplied from a 525,000 litre water storage tank on site. This system is checked and tested at regular intervals.

In the event of fire, the facility exists to divert firewater from the site to the foul drains.

All bulk chemicals are stored within sealed bunded compounds. All large capacity pumps are also located within these bunds. An underground containment tank of 10,000 litres is installed at the chemical off-loading point to collect any spillage that may occur. Chemical suppliers conduct periodic audits of our off-loading and storage facilities and procedures to ensure the operation is safe.



The company holds public liability insurance in respect of our legal liability to pay compensation to Third Parties in respect of claimant's costs and expenses for any accidental loss or damage. The indemnity limits are 6.5 million euro in respect of any one accident with unlimited liability in any one period of insurance.

The company employs a fulltime Health and Safety officer and maintains a comprehensive Health and Safety Statement covering all aspects of production and material handling. This statement includes the instruction to contact the EPA in the event of an environmental incident. The foam department is credited with ISO 9001; 2008 and the management of chemicals is designated to a limited number of trained personnel who follow strict written standard operating procedures. During non-operational hours, frequent security checks are made on the premises, the security company being instructed to contact relevant personnel in the event of an incident.

The company also operates under the guise of the HSA as it is classified as a Seveso Site Under S.I 74 control of major accident Hazard regulations.

Kayfoams Major Accident Prevention Policy (MAPP) document was developed to set out the policies of Kayfoam Woolfson in respect of Major Accident Prevention (MAP) at their facility at Bluebell. The storage and handling of dangerous substances can give rise to a risk of major accident hazards and Kayfoam has obligations to ensure that there are necessary measures are in place to prevent major accidents occurring and to limit the consequences of any such major accidents for people and the environment under the legislation.

A handwritten signature in blue ink, appearing to read 'Eoin O'Mahony'.

Eoin O'Mahony
General Manager
Kayfoam Woolfson
Bluebell Ind. Est.
Naas Road, Dublin 12
Date: 28/3/2014.

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| PRTR# : P0058 | Facility Name : Kayfoam Woolfson | Filename : P0058_2013(1).xls | Return Year : 2013 |

[Guidance to completing the PRTR workbook](#)

AER Returns Workbook

Version 1.1.18

REFERENCE YEAR	2013
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1. FACILITY IDENTIFICATION

Parent Company Name	Kayfoam Woolfson
Facility Name	Kayfoam Woolfson
PRTR Identification Number	P0058
Licence Number	P0058-02

Waste or IPPC Classes of Activity

No.	class_name
5.12(h)	basic plastic materials (polymers, synthetic fibres and cellulose-based fibres)

Address 1	Bluebell Industrial Estate
Address 2	Dublin 12
Address 3	
Address 4	
	Dublin
Country	Ireland
Coordinates of Location	-6.35391 53.3290
River Basin District	IEEA
NACE Code	2014
Main Economic Activity	Manufacture of other organic basic chemicals
AER Returns Contact Name	Eoin O Mahony
AER Returns Contact Email Address	omahonye@kayfoam.com
AER Returns Contact Position	General Manager
AER Returns Contact Telephone Number	014192916
AER Returns Contact Mobile Phone Number	0868189405
AER Returns Contact Fax Number	014602574
Production Volume	4500.0
Production Volume Units	TONNES
Number of Installations	1
Number of Operating Hours in Year	1850
Number of Employees	96
User Feedback/Comments	
Web Address	www.kaymed.ie

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
4(a)(viii)	Basic plastic materials (polymers, synthetic fibres and cellulose-based fibres)

3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002)

Is it applicable?	NO
Have you been granted an exemption ?	NO
If applicable which activity class applies (as per Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being used ?	

4. WASTE IMPORTED/ACCEPTED ONTO SITE

[Guidance on waste imported/accepted onto site](#)

Do you import/accept waste onto your site for on-site treatment (either recovery or disposal activities) ?	No
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4.1 RELEASES TO AIR [Link to previous years emissions data](#)

PRTR#: P0058 | Facility Name : Kayfoam Woolfson | Filename : P0058_2013(1).xls | Return Year : 2013

03/04/2014 16:24

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

POLLUTANT		RELEASES TO AIR					
No. Annex II	Name	M/C/E	Method Used Designation or Description	Emission Point 1	T (Total) KG/Year	A. (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

POLLUTANT		RELEASES TO AIR					
No. Annex II	Name	M/C/E	Method Used Designation or Description	Emission Point 1	T (Total) KG/Year	A. (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)

POLLUTANT		RELEASES TO AIR					
218	Isocyanate	M/C/E	Method Used ESTIMATE	Emission Point 1	T (Total) KG/Year	A. (Accidental) KG/Year	F (Fugitive) KG/Year
		E			18.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

Additional Data Requested from Landfill operators

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T (Total) KG/yr for Section A. Sector specific PRTR pollutants above. Please complete the table below:

	M/C/E	Method Used		Facility Total Capacity m3 per hour
		Method Code	Designation or Description	
Total estimated methane generation (as per site model)	0.0			N/A
Methane flared	0.0			0.0 (Total Flaring Capacity)
Methane utilised in engine/s	0.0			0.0 (Total Utilising Capacity)
Net methane emission (as reported in Section A above)	0.0			N/A

Kayfoam Woolfson

Landfill:
Please enter summary data on the quantities of methane flared and / or utilised

4.2 RELEASES TO WATERS

[Link to previous years emissions data](#)

| PRTR#: P0058 | Facility Name : Kayfoam Woolfson | Filename : P0058_2013(1).xls | Return Year : 2013 |

08/04/2014 16:25

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASERS TO WATERS

POLLUTANT

No. Annex II	Name	M/C/E	Method Code	Method Used Designation or Description	Emission Point 1	QUANTITY		
						T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only
Please enter all quantities in this section in KGs

SECTION B : REMAINING PRTR POLLUTANTS

RELEASERS TO WATERS

POLLUTANT

No. Annex II	Name	M/C/E	Method Code	Method Used Designation or Description	Emission Point 1	QUANTITY		
						T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

Please enter all quantities in this section in KGs

SECTION C : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

RELEASERS TO WATERS

POLLUTANT

Pollutant No.	Name	M/C/E	Method Code	Method Used Designation or Description	Emission Point 1	QUANTITY		
						T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

Please enter all quantities in this section in KGs

4.3 RELEASES TO WASTEWATER OR SEWER

[Link to previous years emissions data](#)

| PRTR# : P0058 | Facility Name : Kayfoam Woolfson | Filename : P0058_2013(1).xls | Return Year

08/04/2014 16:26

SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER									
No. Annex II	Name	M/C/E	METHOD		Emission Point 1	T (Total) KG/Year	QUANTITY		
			Method Code	Method Used Designation or Description			A (Accidental) KG/Year	F (Fugitive) KG/Year	0.0
						0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER									
Pollutant No.	Name	M/C/E	METHOD		Emission Point 1	T (Total) KG/Year	QUANTITY		
			Method Code	Method Used Designation or Description			A (Accidental) KG/Year	F (Fugitive) KG/Year	0.0
						0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

[Link to previous years emissions data](#)

4.4 RELEASES TO LAND [Link to previous years emissions data](#)

| PRTR# : P0058 | Facility Name : Kayfoam Woolfson | Filename : P0058_2013(1).xls | Return Year : 2013 |

08/04/2014 16:26

SECTION A : PRTR POLLUTANTS

POLLUTANT		METHOD		QUANTITY	
No. Annex II	Name	M/C/E	Method Used	T (Total) KG/Year	A (Accidental) KG/Year
			Designation or Description	0.0	0.0
				0.0	0.0

Please enter all quantities in this section in KGs

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

POLLUTANT		METHOD		QUANTITY	
Pollutant No.	Name	M/C/E	Method Used	T (Total) KG/Year	A (Accidental) KG/Year
			Designation or Description	0.0	0.0
				0.0	0.0

Please enter all quantities in this section in KGs

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE | PRTR#: P0058 | Facility Name : Kayfoam Woolfson | Filename: P0058_2013(1).xls | Return Year : 2013 | 08/04/2014 16:26

Please enter all quantities on this sheet in Tonnes

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste - Name and Licence/Permit No of Next Destination Facility Haz Waste - Name and Licence/Permit No of Recover/Disposer	Haz Waste - Address of Next Destination Facility Non-Haz Waste - Address of Recover/Disposer	Name and License / Permit No. and Address of Final Receiver/ Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination (i.e. Final Receiver / Disposer) (HAZARDOUS WASTE ONLY)
						M/C/E	M					
Within the Country	20 03 01	No	155.76	mixed municipal waste	D1	M	Weighted	Offsite in Ireland	Thornton,44-2	Killeen Road,.,Dublin,10,Ireland		

* Select a row by double-clicking the Description of Waste then click the delete button

Please enter details below then click the OK button

Name of Recoverer / Disposer / Next Destination Facility	Thornton
Licence / Permit No. of Recoverer / Disposer / Next Destination Facility	44-2
Address of Recoverer / Disposer / Next Destination Facility	
Address 1 / Street name	Killeen Road
Address 2 / Building number	.
Address 3 / City name	Dublin
Address 4 / Postcode	10
Country	Ireland

Please enter a full stop "." in an address field if there is no data to be entered

Alternatively, please select from previously entered details by clicking on the row below then click OK

Name and License / Permit No.	Address of Recoverer / Disposer / Broker
Thornton,44-2	Killeen Road,,Dublin,10,Ireland