



# Integrated Pollution Prevention and Control Licensing

## Application Form

*For inspection purposes only.  
Consent of copyright owner required for any other use.*

**EPA Reg. N<sup>o</sup>:**   
(office use only)

*This document does not purport to be and should not be considered a legal interpretation of the provisions and requirements of the EPA Acts 1992 and 2003.*

**Environmental Protection Agency**  
P.O. Box 3000, Johnstown Castle Estate, Co. Wexford  
Telephone: 053-60600 Fax: 053-60699



**Environmental Protection Agency**

Application for an Integrated Pollution Prevention and Control Licence

Environmental Protection Agency Acts, 1992 and 2003.

**CONTENTS**

**INTRODUCTION**

**CHECK LIST FOR ARTICLE 10 COMPLIANCE**

**SECTION A NON-TECHNICAL SUMMARY**

**SECTION B GENERAL**

**SECTION C MANAGEMENT OF THE INSTALLATION**

**SECTION D INFRASTRUCTURE & OPERATION**

**SECTION E EMISSIONS**

**SECTION F CONTROL & MONITORING**

**SECTION G RESOURCE USE AND ENERGY EFFICIENCY**

**SECTION H MATERIALS HANDLING**

**SECTION I EXISTING ENVIRONMENT & IMPACT OF THE ACTIVITY**

**SECTION J ACCIDENT PREVENTION & EMERGENCY RESPONSE**

**SECTION K REMEDIATION, DECOMMISSIONING, RESTORATION & AFTERCARE**

**SECTION L STATUTORY REQUIREMENTS**

**SECTION M DECLARATION**

Environmental Protection Agency  
 IPC Licensing  
 26 JAN 2005  
 Received  
 Initials \_\_\_\_\_

4  
10  
x  
x  
x  
x  
x  
x  
x  
x  
x  
x



## INTRODUCTION

A valid application must contain the information prescribed in the Environmental Protection Agency (Licensing) Regulations, 1994 to 2004. **The applicant is strongly advised to read the Application Guidance Notes for Integrated Pollution Prevention and Control Licensing, available from the EPA.**

The applicant must conform to the format set out in the guidance notes for applications (available from the EPA). Each page of the completed application form must be numbered, e.g. *page 5 of 45*, etc. Also duplicated pages from the application form should be uniquely numbered, e.g. *page 5(i) of 45*, etc. The basic information should for the most part be supplied in the spaces given in application form and any supporting documentation should be supplied as attachments, as specified. Consistent measurement units must be used throughout.

The applicant should note that the application form has been structured so that it requires information to be presented in an order of progressive detail.

When it is found necessary, additional information may be provided on supplementary attachments which should be clearly cross referenced with the relevant sections in the main document.

While all sections in the application form may not be relevant to the activity concerned, the applicant should look carefully through all aspects of the form and provide the required information, in the greatest possible detail.

Information supplied in this application, including supporting documentation will be put on public display and open to inspection by any person. Should the applicant consider information to be confidential, this information should be submitted in a separate enclosure bearing the legend "In the event that this information is deemed not to be held as confidential, it must be returned to .....". In the event that information is considered to be of a confidential nature, then the nature of this information, and the reasons why it is considered confidential (with reference to the "Access to Information on the Environment" Regulations of 1993) should be stated in the Application Form, where relevant.

**CHECKLIST FOR ARTICLE 10 COMPLIANCE**

Article 10 of the Environmental Protection Agency (Licensing) Regulations, 1994 to 2004 sets out the statutory requirements for information to accompany a licence application. The application form is designed in such a way as to set out these questions in a structured manner and not necessarily in the order presented in Article 10. In order to ensure a legally valid application in respect of Article 10 requirements please complete the following check-list.

**Article 10(2)**

(a) give the name, address and telephone number of the applicant and, if different, any address to which correspondence relating to the application should be sent and, if the applicant is a body corporate, the address of its registered or principal office,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

(b) give –

(i) in the case of an established activity, the number of employees and other persons working or engaged in connection with the activity on the date after which a licence is required and during normal levels of operation, or

(ii) in any other case, the gross capital cost of the activity to which the application relates,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

(c) give the name of the planning authority in whose functional area the activity is or will be carried on,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

(d) in the case of a discharge of any trade effluent or other matter (other than domestic sewage or storm water) to a sewer of a sanitary authority, give the name of the sanitary authority in which the sewer is vested or by which it is controlled,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>



- (e) give the location or postal address (including where appropriate, the name of the relevant townland or townlands) and the National Grid reference of the premises to which the activity relates,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (f) specify the relevant class or classes in the First Schedule to the Act to which the Activity relates,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (g) specify the raw and ancillary materials, substances, preparations, fuels and energy which will be produced by or utilised in the activity,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (h) describe the plant, methods, processes, ancillary processes, abatement, recovery and treatment systems, and operating procedures for the activity,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (i) indicate how the requirements of the section 85(5)(A)(i) to (v) and (vii) to (x) of the Act shall be met, having regard, where appropriate, to any relevant specification issued by the Agency under section 5(3) of the Act and the reasons for the selection of the arrangements proposed,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (j) give particulars of the source, nature, composition, temperature, volume, level, rate, method of treatment and location of emissions, and the period or periods during which the emissions are made or are to be made,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (k) describe the arrangements for the prevention or minimisation of waste and ,

where waste is produced, the on and off site arrangements for the recovery or disposal of solid and liquid wastes,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (l) specify, by reference to the relevant European Waste Catalogue codes as prescribed by Commissions Decision 2000/532/EC of 03 May 2000, the quantity and nature of the waste or wastes produced or to be produced by the activity,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

(m) provide:

- (i) details, and an assessment, of the impacts of any existing or proposed emissions on the environment, including on an environmental medium other than that or those into which the emissions are or are to be made, and
- (ii) Details of the proposed measures to prevent or eliminate, or where that is not practicable, to limit, reduce or abate emissions,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (n) identify monitoring and sampling points and outlines proposals for monitoring emissions and the environmental consequences of any such emissions,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

(o) describe the condition of the site of the installation,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

(p) describe in outline the main alternatives, if any, to the proposals contained in the application which were studied by the applicant,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

(q) specify the measures to be taken to comply with an environmental quality standard where such a standard requires stricter conditions to be attached to a

licence than would otherwise be determined by reference to best available techniques,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (r) describe the measures to be taken for minimising pollution over long distances or in the territory of other states,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (s) describe the measures to be taken under abnormal operating conditions, including start-up, shutdown, leaks, malfunctions, breakdowns and momentary stoppages,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (t) describe the measures to be taken on and following the permanent cessation of the activity or part of the activity to avoid any risk of environmental pollution and to return the site of the activity to a satisfactory state,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (u) describe, in the case of an activity which gives, or could give rise, to an emission containing a hazardous substances which is discharged to an aquifer and is specified in the Annex to Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances, the arrangements necessary to comply with said Council Directive.

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (v) include any other information required under Article 6(1) of Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (w) include a non-technical summary of information provided in relation to the matters specified in paragraphs (f) to (v) above,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (x) state whether the activity consist of, comprises, or is for the purposes an establishment to which the European Communities (Control of Major Accident Hazards involving Dangerous Substances) Regulations, 2000 apply.

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

**Article 10(3)** Without prejudice to Article 12(1), an application for a licence shall be accompanied by –

- (a) a copy of the relevant page of the newspaper in which the notice in accordance with article 6 has been published,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (b) a copy of the text of the site notice erected or fixed on the land or structure in accordance with Article 7,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (c) a copy of the notice given to the planning authority under Section 85(1) of the Act,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (d) a copy of such plans, including a site plan and location map, and such other particulars, reports and supporting documentation as are necessary to identify and describe –

- (i) the activity

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (ii) the position of the site notice in accordance with article 7,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

- (iii) the point or points from which emissions are made or are to be made, and

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>



IPPC Application Form

(iv) monitoring and sampling points, and

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

(e) a fee specified in accordance with section 94 of the Act,

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

**Article 10(4)(a)** A signed original and 5 copies of the application and the accompanying documents and particulars as required under sub-articles (1) and (2)(a) to (d) shall be submitted to the headquarters of the Agency.

LOCATION		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

**[In cases where an E.I.S. is required to be submitted to the Agency, in support of the application, 15 copies are to accompany the application.]**

**Article 10(4)(b)** Notwithstanding the requirements of paragraph (a) all or part of the 5 copies of the said application and accompanying documents and particulars may be submitted to the Agency in a computer or other non-legible format where such format has been specified by the Agency.

CD version		
PROVIDED Y/N		
CHECKED	Applicant <input type="checkbox"/>	Official <input type="checkbox"/>

**SECTION A NON-TECHNICAL SUMMARY**

**Non-Technical Summary of IPPC Licence Application**

A non-technical summary of the application is to be included here. The summary should identify all environmental impacts of significance associated with the carrying on of the activity/activities, and describe mitigation measures proposed or existing to address these impacts. This description should also indicate the normal operating hours and days per week of the activity.

The following information must be included in the non-technical summary:

A description of:

- the installation and its activities,
- The raw and auxillary materials, other substances and the energy used in or generated by the installation,
- The sources of emissions from the installation,
- The conditions of the site of the installation,
- The nature and quantities of foreseeable emissions for the installation into each medium as well as identification or significant effects of the emissions on the environment,
- The proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the installation,
- Where necessary, measures for the prevention and recovery of waste generated by the installation,
- Further measures planned to comply with the general principles of the basic obligations of the operator i.e.
  - (a) all the appropriate preventative measures are taken against pollution, in particular through application of the best available techniques;
  - (b) no significant pollution is caused;
  - (c) waste production is avoided in accordance with Council Directive 75/442/EEC of 15 July 1975 on waste; where waste is produced, it is recovered or, where that is technically and economically impossible, it is disposed of while avoiding or reducing any impact on the environment;
  - (d) energy is used efficiently;
  - (e) the necessary measures are taken to prevent accidents and limit their consequences;
  - (f) the necessary measures are taken upon definite cessation of activities to avoid any pollution risk and return the site of operation to a satisfactory state.
- Measures planned to monitor emissions into the environment.

Supporting information should form **Attachment N<sup>o</sup> A.1**





IPPC Application Form

SECTION B GENERAL

B.1 Owner/Operator

\*Applicants Name: Shannon Aerospace Limited

Address: Shannon Airport, Co. Clare

Telephone N°: 061-370000 Fax N°: 061-361100

e-mail: lynch.claire@sal.ie

\*This should be the name of the applicant on the date the Application is lodged with the Agency. This should be the name of the legal entity (which can be a limited company or a sole trader). A trading/business name is not acceptable.

Address for correspondence: Not Applicable

Address of Body Corporate: Not Applicable

e-mail:

For inspection purposes only. Consent of copyright owner required for any other use.





IPPC Application Form

Name and address of the proprietor(s) of the land on which the Activity is situated (if different from applicant named above).

Proprietor's Name:

Not Applicable

Address:

---

---

---

---

---

Name and address of the owner(s) of the building and ancillary plant in which the activity is situated (if different from applicant named above).

Name:

Not Applicable

Address:

---

---

---

---

---

For inspection purposes only.  
Consent of copyright owner required for any other use.

**B.2 Location of Activity**

Name: Shannon Aerospace Limited

Full address: Shannon Airport,  
Shannon,  
Co. Clare

Telephone N<sup>o</sup>: 061-370000 Fax N<sup>o</sup>: 061-361100

Contact Name(s): Patrick Ryan

Position: Head of Engineering & Planning

e-mail: ryan.patrick@sal.ie

National Grid Reference (12 digit-6E, 6N) E075938 N125762

Location map, with grid references are in Attachment N<sup>o</sup> B.2

For inspection purposes only.  
Consent of copyright owner required for any other use.

**B.3 Class of Activity**

Identify the relevant activities in the First, Third or Fourth Schedule of the PoE Act 2004 to which the activity relates:

Schedule	Class	Description
1	12.2.2	The manufacture or use of coating materials with a capacity to make or use at least 10 tonnes per year of organic solvents

**Note 1:** In order to give a precise identification select only those words from the description of the class or classes that best describes the nature of the activity for which the licence is being applied for.

**B.4 Employees/Capital Cost**

Give –

- (i) In the case of an established activity, the number of employees and other persons, working or engaged in connection with the activity on the date after which a licence is required and during normal levels of operation, or
- (ii) In any other case, the gross capital cost of the activity to which the application relates.

Number of employees (existing facilities): 800

Gross capital cost (new proposals): € Not applicable

**B.5 Relevant Planning Authority**

Give the name of the planning authority in whose functional area the activity is or will be carried out.

Name: Clare County Council

Address: New Road

Ennis

Co. Clare

Telephone N<sup>o</sup>: 065-6821616

Planning Permission for this project:-

Obtained  Is being processed  Not applied for

Local Authority Planning File Reference N<sup>o</sup>: \_\_\_\_\_

**Attachment N<sup>o</sup> B.5** should contain all planning permissions including a copy of all conditions. For existing activities, **Attachment N<sup>o</sup> B.5** should also contain all licences and permits past and present in force at the time of submission.

*Attachment B.5 lists all planning permissions relating to Shannon Aerospace Limited.*

**B.6 Relevant Sanitary Authority**

In the case of a discharge of any trade effluent or other matter to a sewer of a sanitary authority, give the name of the sanitary authority in which the sewer is vested or by which it is controlled.

Name: Clare County Council

Address: New Road

Ennis

Co. Clare

Telephone N<sup>o</sup>: 065-6821616

In the case of a discharge of any trade effluent or other matter to a sewer not vested by a sanitary authority, the applicant must supply as **Attachment N<sup>o</sup> B.6**; (a) the name and address of the owner(s) of the sewer and the waste water treatment plant to which the sewer discharges and who are responsible for the quality of the treated effluent discharging to waters and (b) a copy of the effluent regulations and the agreement between the applicant and the aforementioned.

Name: Not Applicable

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone N<sup>o</sup>: \_\_\_\_\_

Consent to publish for information purposes only.  
Consent to publish is required for any other use.

**B.7 Relevant Health Board Region**

The applicant should indicate the Health Board Region where the activity is or will be located.

Name: Mid-Western Health Board

Address: 31-33 Catherine Street

Limerick

Telephone N<sup>o</sup>: 061-483286

**B.8 Site Notice, Newspaper Advertisement and Planning Authority Notice**

Give the position of the site notice in accordance with article 7 of the Regulations.

**Attachment N<sup>o</sup> B.8** should contain a copy of the text of the site notice, a map showing its location on site and a copy of the newspaper advertisement. A copy of the notice given to the Planning Authority should also be included.

A copy of the text of the site notice, (ii) a map showing the location of the site notice, (iii) a copy of the newspaper advertisement (from Irish Independent 12/01/05), and (iv) a copy of the letter submitted as notice to Clare County Council is enclosed in **Attachment N<sup>o</sup> B.8**.

**B.9 Seveso II Regulations**

State whether the activity is an establishment to which the EC (Control of Major Accident Hazards involving Dangerous Substances) Regulations, 2000 (S.I. No. 476 of 2000) apply.

If yes, outline how the process comes under these regulations.

Supporting information should be included in **Attachment N<sup>o</sup> B.9**.

*The Seveso II Regulations do not apply to Shannon Aerospace Limited.*

**B.10 IPPPC Directive**



*IPPC Application Form*

---

Specify whether the facility is a category of industrial activity referred to in Annex I of the IPPC Directive (96/61/EC) and if yes specify the category.

Supporting information should be included in **Attachment N° B.10**.

*The requirement to have an IPPC licence for the activity based on Directive 96/61/EC is limited to those operations using more than 200 tonnes solvent per year or more than 150kg solvent/hr. This usage is not experienced in the aircraft painting sector and high solids paints preclude such usage.*

*For inspection purposes only.  
Consent of copyright owner required for any other use.*



**SECTION C MANAGEMENT OF THE INSTALLATION****C.1 Site Management & Control**

Details should be provided on the management structures for the activity. Organisational charts, and all relevant environmental management policy statements, including provisions for on-going assessment of environmental performance are required.

Indicate whether an Environmental Management System has been developed for the installation.

If yes, specify which standard and include a copy of the accreditation certificate.

This information should form **Attachment No C**.

*An organisation chart indicating the environmental responsibilities at the facility is enclosed in **Attachment N<sup>o</sup> C**.*

*Shannon Aerospace Limited is accredited to ISO 14001. A copy of the accreditation certificate is enclosed in **Attachment N<sup>o</sup> C**.*

*The facility does not have a calibration system in place. Instead it uses a Building Management System (i.e. uses software to control energy consuming plant and equipment). All filters and ventilation systems on-site are condition based – i.e. alarms sound when filters etc. need replacing. The repair and maintenance of all abatement systems on-site are dealt with by the Facilities Department. A team of qualified electricians and fitters deal with the maintenance of equipment, under the control of the Facilities Engineer.*

*Daily checks are carried out on extract fans, kerosene bund, etc. Jobcards are kept of all these daily inspections. In conjunction with the daily checks and the BMS system all equipment (e.g. air handling units, extract fans) are maintained. A qualified electrician and a qualified fitter carry out these daily checks. Therefore any potential problems are picked up and addressed straightaway.*

*An out-of-hours system operates in the facility. After 5pm all alarms etc. from the BMS are transferred to Security. There is an on-call system in place which is used to call in members of the Facilities Department as required.*

*The facility complies with "EASA 145 Accepted Organisation" standards which is the Quality Control System in relation to aircraft maintenance and painting.*

*A copy of the Waste Management Procedure and Waste Record Procedure are enclosed in **Attachment N<sup>o</sup> C**.*

*An Environmental Management Programme exists in the facility. This is updated every year, by considering the environmental policy, IPC License requirements, significant environmental aspects, technological options, financial, operational and business requirements, views of interested parties and legislative requirements including changes to legislation. The objectives and targets set are consistent with SAL's IPC license requirements, commitment to continual improvement and SAL's environmental policy, including the commitment to prevention of pollution.*

*For each new set of Environmental Objectives and Targets a detailed plan for achieving the objective shall be proposed including the identification of responsibility for achieving the objective. These Objectives and Targets and their associated plans shall form the basis of the Environmental Management Programme for the following year. An EMP report is prepared and submitted to the EPA every year as part of the AER.*

*For inspection purposes only.  
Consent of copyright owner required for any other use.*

Environmental Protection  
Agency  
IPC Licensing  
26 JAN 2005  
Receiver \_\_\_\_\_  
Initials \_\_\_\_\_

**SECTION D INFRASTRUCTURE & OPERATION****D.1 Operational Information Requirements**

Describe the plant, methods, processes, ancillary processes, abatement, recovery and treatment systems, and operating procedures for the activity, to include a copy of such plans, drawings or maps (site plans and location maps, process flow diagrams), and such other particulars, reports and supporting documentation as are necessary to describe all aspects of the activity.

A development and operational history of the site should be included here.

**Attachment No. D** should contain a list of all unit operations (process) to be carried out, including a flow diagram of each with any relevant additional information.

**Process Description:****Overview of Process**

*Refer to Attachment D for an overall process flow, etc. site maps etc.*

*Heavy maintenance operations on aircraft at Shannon Aerospace will typically consist of:*

1. *Washing the aircraft (including de-greasing)*
2. *removal of access panels, sections and components*
3. *paint stripping*
4. *overhaul*
5. *re-wash*
6. *painting and finishing*

*Light maintenance (without painting) consists of operations 1, 2 and 4 only.*

*Hangars in the facility are designed to cater for larger aircraft such as B767 and A300/A310 series but it is expected that for the greater part of the time hangars will be shared between several medium sized aircraft. Specialised docks will be permanently in placed in both hangars.*

*Shannon Aerospace specializes in the heavy airframe overhaul of narrowbody aircraft types performing structural maintenance checks specifically on the Airbus, Boeing and McDonnell Douglas aircraft.*

*On completion of maintenance operations the aircraft engines are started within the run-up/compensation area. This is only occasion when jet engines are fired within the facility.*

**Tech Wash:**

Prior to the carrying out of any form of maintenance (overhaul) or painting on an aircraft, it is washed thoroughly to remove all grease and dirt which commonly accumulates during normal operation. Washing can occur in either the maintenance or painting hangar. One aircraft only is washed at any given time.

The greater part of the aircraft is washed with high pressure water jets (water at 60-80bar) and with detergents and water. Grease is removed with high pressure water and detergents and solvents applied on rags. Areas of the aircraft which could easily be damaged during washing are cleaned with rags and solvents or detergents. The aircraft is finally washed with clean water to remove solvents and detergents along with the dirt and grease.

Following washing, the aircraft is stripped of all removable parts to allow access to interior areas requiring overhaul. Components, such as landing gear, flaps, etc. must be removed to undergo critical examinations to discover possible stress, strain, corrosion or other damage caused while in operation. These may require further washing (of a similar nature) in the cleaning bay. The remainder of the stages of overhaul on these components occurs in the workshops while paint stripping and painting will take place in specially designed booths.

**Maintenance and overhaul:**

Maintenance of aircraft can take three forms directly dependent in complexity on flying time, periods of operation and on the aircraft type itself.

- Line maintenance (Trip-, Z- and Service Checks) which involve routine inspections and servicing only, occurs frequently (one per flight/day/week) and can be carried out relatively quickly.
- Light maintenance (A-, B- and C-checks) are carried out on a weekly/monthly basis and involves longer checks and inspections and require the use of larger quantities of consumable materials. Structural (x-ray, eddy current and ultrasonic) inspections and system tests are required during C-checks (and IL- and D-checks).
- Heavy maintenance:
  - (a) Intermediate layover or Intermediate visit-check
  - (b) Overhaul layover or D-check

The majority of events will be D-checks, heavy maintenance and intermediate visits.

(a) Intermediate Layover (IL-check)

Intermediate layover/intermediate visits, carried out roughly every five years, requires that an aircraft leave general service to remain in a hangar for extended time periods when structure, fuselage and cabin are investigated in detail in conjunction with normal



## IPPC Application Form

light maintenance operations. Intermediate layover can involve exterior polishing and painting only, but will usually require complete re-painting.

### (b) Overhaul (D-check)

During D-check all maintenance checks are carried out including the replacement of components, the refurbishing of cabins and the re-painting of the entire aircraft, along with all maintenance operations associated with intermediate layover. Overhaul maintenance operations include the removal of corrosion with the use of scrapers and power tools and by chemical methods.

Eddy currents, ultra sonic rays and x-rays are used to investigate fuselage and other sections of the aircraft as well as removable components and other parts for excessive stress, strain and corrosion. These activities are carried out with specialist equipment and in a manner which ensures the safety of personnel by the non-destructive testing (NDT) department.

Riveting of components and panels will occur in the facility both on the aircraft proper and in workshops specially designed for maintenance operations. When riveting is carried out on the aircraft itself damping materials (e.g. sand bags) are used on the upper side of horizontal surfaces (fuselage, tail section and upper wing surfaces) to lower noise levels. When a large amount of riveting on the aircraft is to occur it will be carried out at separate, if possible, to other intensive maintenance operations. Riveting tools are powered with compressed air.

Throughout all maintenance operations the aircraft is earthed to ensure that an electrostatic charge does not build up while power tools are in use.

### **Painting Process:**

#### **Paint Stripping:**

The aircraft is prepared for stripping or sanding. This step only takes place in the painting hangar. From there it may be chemically stripped and/or sanded or may be sanded only. This step takes approximately 2 days to complete. Prior to applying chemical stripper to the aircraft, composite areas are masked off using a combination of craft paper, masking tape, aluminium foil and polythene sheeting.

Aircraft chemically stripped undergo further processing before painting begins. Whether sanded or chemically stripped the aircraft is then painted. In order to collect paint and stripper during the stripping process polythene sheets are laid out under the aircraft fuselage. Ventilation is switched on.

The painting hangar is provided with a comprehensive ventilation and filtration system. Extraction of solvent emissions is via under-floor exhaust ducts/drains to exhaust nozzles, thus providing a continuous downwards airflow past the work-surfaces. These extract fans are labelled EF8/9 and EF10/11.

Stripper is applied to the surfaces where stripping is required. Stripper pumps spray the stripper on. Generally, this begins at the tail, proceeds to the fuselage and then the wings. However, in many cases only parts of these areas are chemically stripped. In





## IPPC Application Form

particular, wings are often sanded rather than being chemically stripped. Composite areas must only be sanded. Masking is used to prevent stripper accidentally reaching such areas. Usually stripper containing formic acid is used.

The stripper is allowed to soak into the paint for some time. Depending on the number of coats previously applied and a number of other factors affecting the adhesion of the paint to the metal, the duration of time required for the stripper to be effective can vary significantly. Repeated applications may be necessary to some or all the areas. Stripper and paint flakes fall to the polythene sheeting on the floor below.

Once the stripper has acted, the remaining stripper and paint flakes are removed using rubber squeegees. The residue is collected in the polythene sheets which are then gathered.

The liquid component of the waste is placed in 200lt open top drums and the plastic is set aside for compacting later on during clean up of the hangar.

Turco Jet Clean C (detergent) is wiped onto the stripped surfaces and the aircraft is power washed with high pressure water nozzles.

A "wet wash" is then required. Hand held pneumatic rotary tools with water attachments are used. "Scotch bright" pads are attached and water trickles through the devices.

Ventilation is then switched off.

The pumps, lances and associated hoses are then cleaned, by running a mixture of acetone and toluene through them. This is supplied in closed top 200lt drums and the waste acetone/toluene is also fed into a closed drum.

### Sanding:

The wings and other composite areas are sanded. Occasionally sanding is performed by means of hand held portable sanders with in line vacuum. In the case of aircraft which are to be sanded, the aircraft is masked as before. Afterwards the aircraft is power washed with high pressure water nozzles.

### Post Stripping Treatment:

Old sealer damaged by the stripper is removed from the aircraft joints by hand using a Teflon scraper. The joints are then wiped with cleaning solvent C28/15 to prepare them for new sealer application. Masking tape is applied along the side of the joint, and the joints are resealed with the appropriate sealer by means of a special pneumatic application gun. Sealer is supplied in tubes in which the components are mixed immediately prior to use.

Usually, the aircraft is moved back to the maintenance hangar for overhaul process. Occasionally the aircraft is painted immediately after the stripping process

### Surface Preparation (painting):

Following overhaul the aircraft is towed back into the painting hangar where it will be cleaned and painted. If necessary, the fuselage is re-washed after maintenance operations with detergents and/or solvents to remove any accumulated dust. Individual components which have been previously removed to specialist painting booths have already been prepared. Areas to be protected during painting operations are masked off with plastic and masking tape. At the initial stage these are mostly windows. Certain areas not be painted with a certain colour are covered. The normal practice of painting two or more colours on an aircraft requires additional masking during the third coat. The quantity of masking waste depends on the number of colours and the complexity of the colour schemes.

If necessary, rust inhibitors (Alochrome 1200, Turco Metal Glo 6 etc.) may be applied to localised areas of the aircraft surface. Ventilation is switched on prior to commencing this operation. The rust inhibitor is applied by hand using brushes and reacts with the surface of the metal to prevent corrosion.

Ventilation is switched on.

The entire surface of the aircraft to be painted is cleaned with solvent. This is applied with rags ("Tack rags") soaked in the solvent.

#### Painting:

Painting is carried out using electrostatic high transfer efficiency spray guns.

Painting aircraft usually consists of the application of 3/4 coats as follows:

- (1) Primer 1 – FCR primer (corrosion resistant)
- (2) Primer 2 – CF primer (chromate free)
- (3) Top-coat – polyurethane (usually three coats are applied)
- (4) Lacquer – clear coat (this stage is not normally carried out)

Aircraft which have been chemically stripped require a coat of primer containing corrosion inhibitors (FCR Primer). This primer is mixed with FCR hardener and thinner.

The primer is applied to the aircraft using paint spray guns. This begins at the tail, proceeds to the fuselage and then the wings.

The primer coat is then left for a period to dry.

All aircraft whether stripped chemically or sanded require a coat of chromate free primer (CF Primer). This is mixed with thinner and hardener.

The primer is applied with paint spray guns.

The CF Primer coat is then allowed to dry.

Paint guns are cleaned using the acetone/toluene mixture similar to the process for cleaning stripper lances and pumps.

Paint is mixed with hardener and thinner.



As for the primers each coat is applied using paint spray guns. Depending on the colour scheme required by the customer not all areas may be painted a particular colour. Generally the fuselage is first to be painted as it is the largest area. Smaller areas of a particular colour are painted later. The coat of paint is left for approximately one hour to dry.

The previous step is then usually repeated for three coats. The final coat of each colour is allowed 8 to 10 hours to dry before the next colour begins. After each colour the aircraft is re-masked in preparation for the next colour. A number of colours may be painted at the same time if their areas are sufficiently far apart not to interfere with each other.

Logos may be painted on or applied to the aircraft as labels. Masking or stencils are used as necessary.

#### Clearcoat:

In some cases a clear coat is required as per customer specifications. Application of a clear coat is a rare occurrence, Paint spray guns are cleaned as before.

The clear coat varnish is mixed with hardener and thinner similar to that for paint.

Just one coat of clear coat is sprayed onto the entire aircraft. Masking is only required for areas such as windows.

This is then allowed to dry over a period of 8 to 10 hours.

All masking is removed from the aircraft. Solvent (C28/15) may be used to dissolve gum from the masking tape and aluminium foil.

Technical markings ("Teck marks") such as registration numbers are then painted on by hand using stencils.

Paint spray guns are given a final cleaning using acetone/toluene for a duration of 2 to 3 hours.

Heating and ventilation is switched off, if edge sealing is not required

#### Edge sealing:

If a clear coat is not required the paint edges of logos and around windows are sealed. Special edge sealing paint is applied by hand to the edges of logos, around windows and anywhere the paint meets the bare surface.

Heating and ventilation is switched off.

#### Hangar Clean-up and Waste Disposal:

Docking (staging) is removed from around the aircraft and the earthing connection to the aircraft is disconnected.

The hangar doors are opened.



## IPPC Application Form

*The aircraft is removed from the aircraft and the hangar doors are closed.*

*All remaining waste in the hangar is cleaned away. The hangar floor is swept.*

*The plastic sheeting from chemical stripping is put into 200lt barrels and is compacted using a heavy weight in order to minimise the number of waste barrels necessary.*

*All barrels of waste solvent, hazardous waste, stripper waste etc. are removed to the bunded waste store before being sent off-site for treatment and disposal to licensed waste contractors.*

*The water collected in the sump is pumped into IBCs and stored in the bunded waste store before being sent off-site for treatment and disposal.*

### Aspects of the Unit Operation that can cause emissions

*When washing of aircraft occurs after paint stripping the water is collected in sumps under the floor. This effluent is pumped out either to IBC's or by tanker truck and sent off-site to licenced waste contractors for treatment. Therefore there are no emissions to water from the unit operations i.e. aircraft painting.*

*Ventilation in the paint hangar is turned on when paint stripping and/or painting is due to occur. Only at these periods do emissions to air occur i.e. VOC's & Particulates.*

*Roll Filters are provided on all the air handling units. This abatement system reduces particulate emissions to air. IPC particulate monitoring shows that 100% compliance with particulate limits has always been achieved.*

*No VOC abatement system exists in the aircraft painting industry due to large volume flows and low VOC concentrations. This issue is discussed in Section E.1.*

### Interiors Processes:

#### 1 Galleys:

*Galleys received from aircraft are cleaned and inspected. Various repairs are carried out which involve - filling damaged Honeycomb panels, carrying out fibreglass repairs, carrying out fibreglass repairs and sheetmetal and plumbing repairs. An extraction system is used for dust removal.*

#### 2 Interiors:

*Sidewalls, ceiling and floor panels removed from aircraft are cleaned and inspected. Repairs are carried out which involve filling damaged Honeycomb panels, carrying out fibreglass and sheetmetal repairs. An extraction system is used for dust removal.*

#### 3 Upholstery:

*Decored panels removed from aircraft are cleaned and inspected. Old décor (wallpaper) removed and new fitted. Laminar air flow bench used to extract adhesive fumes – average use 15 hours per week. Fiberglass insulation jackets repaired, carpets and curtains cut to size. Seat covers fabricated.*

#### 4 Seats:

*Seat removed from aircraft are cleaned and inspected. Repairs carried out involve fibreglass and sheetmetal repairs.*

Composite Workshop Processes:

1 Composite Repairs Practices:

Generally, after inspection, composites repair a section to be cut-out from the part. The surrounding area is usually sanded and cleaned to provide a good bonding surface.

2 Aluminium Assemblies:

For Aluminium Assemblies the use of corrosion protection systems (e.g. alochrome) and primers are used. Repair doublers are normally bonded on, using a film adhesive, under heat and vacuum. The area around the repair is then sealed using sealants.

3 Fibrous Composites:

For fibrous composites the repair patches of either glass fibre, carbon fibre or Kevlar are laminated using an epoxy resin or by the use of prepregs and film adhesives. These repairs would also be cured under heat and vacuum.

Mechanical Workshop Processes:

Parts arrive from the line or from Engineering. It is then decided if the part can be made in the shop. The part is fabricated and sent to stores with certified internal work order or a repaired part is returned to line and certified paperwork given to appropriate work support.

Non-destructive Testing (NDT) Processes:

Eddy currents, ultra sonic rays and x-rays are used to investigate fuselage and other sections of the aircraft as well as removable components and other parts for excessive stress, strain and corrosion. These activities are carried out with specialist equipment and in a manner which ensures the safety of personnel by the non-destructive testing (NDT) department.

Consideration of Malfunctions:

The operations undertaken at Shannon Aerospace Limited are not reliant on automated equipment or process control systems.

Also, an out-of-hours system operates in the event of any problem. After 5pm workdays, printouts and alarms from the BMS system transfer to the Security Office (which is manned 24 hours a day). All members of Security have received training in using the BMS and therefore they can inspect any alarms etc. which may arise. An out-of-hours system is also in operation, so in the event of any problem a member of the Facilities Department is on call.

Abatement:

Details relating are discussed in Section E.1.A.

## D.2 Development & Operational History of the Site

*Located at Shannon Airport, the Shannon Aerospace hangar is purpose built and was developed from a green-field site in 1990. At the time of its completion in 1992, the Shannon Aerospace Hangar was the biggest single building area in Ireland.*

*Shannon Aerospace Limited was established in 1990 as a joint enterprise of GPA Group PLC, Lufthansa German Airlines and Swiss Air Transport Company (Swissair).*

*In 1995, GPA, which had been restructured following financial near-collapse in 1993, decided in its own interests to relinquish its shareholding in Shannon Aerospace. Lufthansa and Swissair then took over the GPA shares. The shareholding was then divided equally between Lufthansa Technik (the newly formed engineering and maintenance subsidiary of the Lufthansa Group) and SR Technics. In 2002 Lufthansa Technik took over the remaining 50% shares from SR Technics. Shannon Aerospace is now an integral part of the Lufthansa Technik Group, that consists of more than 30 MRO companies worldwide.*

*In terms of development at the site, in 1999 a smaller building (40 x 91m) was added. This comprises additional workshop space and a lead lined non-destructive testing (NDT) room.*

*In 1998, it was decided to partition the painting hangar into two bays. Each bay would then be able to accommodate any single aircraft smaller than a Boeing 767. One aircraft could then be painted whilst the other was subjected to maintenance activities. A withdrawable curtain was then installed in the painting hangar. Bay P1 is normally used exclusively for painting while Bay M5 is used for both maintenance and painting (though the number of painting operations is quite small). There are times when P1 is completely out of use; however M5 is used almost continuously throughout the year.*

**SECTION E EMISSIONS****E.1 Emissions to Atmosphere****E.1.A Details of all point emissions to atmosphere**

Details of all point emissions to atmosphere should be supplied. Table E.1.(i) (for Boiler emissions) must be completed for boilers over 20MW thermal input. Complete Table E.1(ii) and E.1(iii) for all other main emission points. Complete Table E.1(iv) for minor emission points.

A summary list of the emission points, together with maps, drawings, and supporting documentation should be included as **Attachment No E**. Plans of emission elevations, relevant roof heights, etc., should also be included, as should detailed descriptions and schematics of all abatement systems.

The applicant should address in particular any emission point where the substances listed in Schedule of S.I. 394 of 2004 are emitted.

For emissions outside the BAT guidance limit, a full evaluation of the existing abatement/treatment system must be provided. A planned programme of improvement towards meeting upgraded standards is required. This should highlight specific goals and a time scale, together with options for modification, upgrading or replacement as required to bring the emissions within the limits as set out in the BAT guidance note(s).

Assessment on why an exception as set out in the Solvents Directive is applicable to the facility

*Ireland was approximately eight years ahead of other Member States in implementing IPC/IPPC regulations. Unfortunately, Ireland framed the EPA Act 1992 on the basis of a Draft Directive which was substantially modified in terms of thresholds, scope of industries included etc. when the Directive was finally passed. This means that at present a disparity of approach exists relative to the rest of the EU, in relation to the aircraft painting sector.*

*Industries using solvents for surface coatings in Ireland came under the IPC requirement if the usage exceeded 10 tonnes per annum (this is the category under which LAPS have their IPC licence). The IPPC Directive as finally drafted specifies a usage threshold of 200 tonnes per annum; the subsequent Solvents Directive provides for an exemption clause from emission limit value based controls for the aircraft and shipbuilding sectors. This has led to a situation whereby the Irish operations have had emission limit values placed on their activities under the strictures of the IPC whereas the EU wide competitors can avail of a Best Available Technique approach for implementing low emission technologies and systems.*

*Attached in Attachment E.1 are the site specific Solvent Management Programmes for Shannon Aerospace Limited, Lufthansa Technik Painting Shannon Limited, and FLS*



Aerospace as stipulated in the Solvent Directive and in accordance with SI 543 of 2002, which implements the Directive in Ireland.

The attachment represents the culmination of a two year investigation and mass balance programme on various aircraft types and strip – paint systems including the state of the art high solids low solvent systems at all three sites.

As part of the preparation of the Solvent Management Programmes, an independent BAT assessment of the three Irish Sites was commissioned by the companies and carried out by members of the UK Process Guidance Note Committee (PG 6-40 Aircraft Painting) . The assessors reviewed the status of the sites against the then draft PG6/40 (attached as draft of 2<sup>nd</sup> May 2002), made certain recommendations which were implemented and declared that the sites were compliant with the proposed UK criteria. This was and is of importance as the paint systems used, certified and commercially available in Ireland would largely reflect UK practice

Also included is a copy of the relevant section and executive summary of a IPPC BAT note prepared on behalf of the FEA Germany for this sector although there is some uncertainty as to whether any other facilities in the EU will be covered by IPPC.

The conclusions drawn in the solvent management plans are that the systems implemented in all Irish sites are already at BAT status in comparison with the UK and German criteria when measured in terms of solvent emissions to solids ratios, even though different systems are employed at each site due to the market sectors in which they operate and client and aircraft type requirements.

The industry is pleased that the conclusions independently validated show the sector here to be at the highest level of practice and are confident that the Solvent Management Programmes and systems used are achieving the desired emission reductions without resort to uneconomical end of line controls and completely fulfil the spirit and intent of both the Solvent and IPPC Directives.

#### Abatement Systems used at Main Emission Points:

There are two types of abatement systems used to reduce the main emissions to atmosphere from the facility, namely (i) Electrostatic Paint Spraying and (ii) Dust Filtration.

#### Electrostatic Paint Spraying

During application of paint in the hangar, paint spray guns are used which ionise the paint spray thereby reducing overspray and minimising quantities of paint materials used.

One line connected to the gun supplies compressed air, another supplies the paint. The compressed air operates an internal turbine which in turn generates power. The turbine's power is converted by the power cartridge to the supply high voltage current to an ionising electrode in the gun. Paint is pumped to the gun where it is electrostatically charged as it passes the ionising electrode. As it leaves the gun nozzle it is atomised by the compressed air. The charged paint spray is attracted to the grounded metal surface of the aircraft. For this to work, both the gun and the aircraft must be grounded.

Paint sprayed in this way evenly coats all surfaces. The advantage of this system is that waste and fugitive emissions through paint overspray is minimised, as are the quantities of raw materials used.



*IPPC Application Form*

---

*Dust Filtration*

*Roll Filters (BS 779 Rating G3) are provided on all air handling units (AHU). The efficiency of these filters is greater than 80% and less than 90% removal of particles of greater than 5 microns. This abatement system reduces emissions to air. Particulates generated by hand held portable sanders are collected by a filter in the in-line vacuum system.*

*Minor Emission Points*

*2 minor emission points have been identified – boiler emissions BE1 and BE3.*

*For inspection purposes only.  
Consent of copyright owner required for any other use.*



**TABLE E.1 (i) BOILER EMISSIONS TO ATMOSPHERE** (1 page for each emission point)

**Emission Point:**

Emission Point Ref. No.	BE2
Location:	LPG Boiler – Boiler House Roof
Grid Ref: (12 digit, 6E, 6N)	E137808 N162407
<b>Vent Details</b>	
Diameter:	0.6m (steel vent)
Height above Ground (m):	9.0m
Date of commencement of emission:	October 1992

**Characteristics of Emission:**

<b>Boiler rating</b>	
Steam Output:	Not applicable
Thermal Output:	4 <span style="float: right;">Kg/hr MW</span>
<b>Boiler fuel</b>	
Type:	LPG/Kerosene
Maximum rate at which fuel is burned	LPG = 568litres/hr (288kg/hr)
% sulphur content	Kerosene = 390litres/hr Negligible
NOx	
Maximum volume of emission	566Nm <sup>3</sup>
Temperature	<span style="float: right;">°C(max)      °C(min)      217.7°C(avg)</span>

- (i) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up/shut-down to be included*):

*Modulating boilers are used at Shannon Aerospace which means that they are designed to provide the amount of heat to match the load on the heating system at any particular time and constantly adjust to do this. Boiler BE2 is run for approximately 2,500 hrs/year.*

- (ii)

Periods of Emission (avg)	60 min/hr	7 hr/day	365 day/yr
---------------------------	-----------	----------	------------



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	EF 8/9
Source of Emission:	Painting/Stripping from Paint Hangar
Location:	Painting Hangar Stack – M5 Upper level main roof
Grid Ref: (12 digit, 6E, 6N)	E137950 N162438
<b>Vent Details</b>	
Diameter:	1.6m
Height above Ground (m):	1.37m
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	Not Applicable m <sup>3</sup> /d	Maximum/day	1,279,159 m <sup>3</sup> /d
Maximum rate/hour	127,916 m <sup>3</sup> /h	Min efflux velocity	19 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	20 °C(avg)
For Combustion Sources:			
Volume Terms expressed as:	<input checked="" type="checkbox"/> wet.	<input type="checkbox"/> dry.	%O <sub>2</sub>

(iii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

10 hours daily for 40 non-consecutive days per year

(iv)

Periods of Emission (avg)*	60 min/hr	24 hr/day	365 day/yr
----------------------------	-----------	-----------	------------

\* Emissions are periodic and related to the painting, sanding and stripping ventilation. The ventilation will not be switched on for the full period described immediately above.

**TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE** (1 page for each emission point)

**Emission Point:**

Emission Point Ref. No.	EF 10/11
Source of Emission:	Painting Hangar
Location:	Painting Hangar Stack – P1
Grid Ref: (12 digit, 6E, 6N)	E138005 N162476
<b>Vent Details</b>	
Diameter:	1.6m
Height above Ground (m):	1.37m
Date of commencement of emission:	October 1992

**Characteristics of Emission:**

<b>(i) Volume to be emitted:</b>			
Average/day	Not applicable m <sup>3</sup> /d	Maximum/day	1,161,279 m <sup>3</sup> /d
Maximum rate/hour	114,450 m <sup>3</sup> /h	Min. efflux velocity	17 m.sec <sup>-1</sup>
<b>(ii) Other factors</b>			
Temperature	°C(max)	°C(min)	20 °C(avg)
For Combustion Sources:			
Volume Terms expressed as: <input type="checkbox"/> wet. <input type="checkbox"/> dry. _____ %O <sub>2</sub>			

(iii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up/shut-down to be included*):

*10 hours daily for 40 non-consecutive days per year*

(iv)

Periods of Emission (avg)*	60 min/hr	24 hr/day	365 day/yr
----------------------------	-----------	-----------	------------

\* Emissions are periodic and related to the painting, sanding and stripping ventilation. The ventilation will not be switched on for the full period described immediately above.



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	EF 3.1
Source of Emission:	Spraying, sanding
Location:	Extract from paint workshops Upper level main roof
Grid Ref: (12 digit, 6E, 6N)	E137002 N162469
<b>Vent Details</b>	
Diameter:	0.9m
Height above Ground (m):	1.36m
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	422,054 m <sup>3</sup> /d	Maximum/day	434,555 m <sup>3</sup> /d
Maximum rate/hour	54,319 m <sup>3</sup> /h	Min efflux velocity	25.5 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	°C(avg)19.9
For Combustion Sources:			
Volume Terms expressed as:	<input type="checkbox"/> wet.	<input type="checkbox"/> dry.	%O <sub>2</sub>

(iii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr 8 hr/day 260 day/yr
----------------------------	-------------------------------

\*Emissions are periodic and related to the painting requirements. The ventilation will not be switched on for the full period described immediately above.

**TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE** (1 page for each emission point)

**Emission Point:**

Emission Point Ref. No.	EF 4.2
Source of Emission:	Mechanical Workshop
Location:	Extract from Mechanical Workshop Upper level main roof
Grid Ref: (12 digit, 6E, 6N)	E137861 N162390
<b>Vent Details</b>	
Diameter:	0.6m
Height above Ground (m):	1.26m
Date of commencement of emission:	October 1992

**Characteristics of Emission:**

<b>(i) Volume to be emitted:</b>			
Average/day	199,409 m <sup>3</sup> /d	Maximum/day	27,456 m <sup>3</sup> /d
Maximum rate/hour	219,645 m <sup>3</sup> /h	Min. efflux velocity	29 m.sec <sup>-1</sup>
<b>(ii) Other factors</b>			
Temperature	°C(max)	°C(min)	20.6 °C(avg)
For Combustion Sources:			
Volume Terms expressed as: <input checked="" type="checkbox"/> wet. <input type="checkbox"/> dry. _____ %O <sub>2</sub>			

(iv) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up/shut-down to be included*):

Periods of Emission (avg)*	60 min/hr	8 hr/day	260 day/yr
----------------------------	-----------	----------	------------

\* Emissions are periodic and related to requirements. The ventilation will not be switched on for the full period described immediately above.



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	EF 5.1
Source of Emission:	Spraying, adhesives, painting, plastic moulding
Location:	Extract from Interiors Workshop Upper level main roof
Grid Ref: (12 digit, 6E, 6N)	E137858 N162389
<b>Vent Details</b>	
Diameter:	1.1m
Height above Ground (m):	1.44m
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	412,364 m <sup>3</sup> /d	Maximum/day	501,503 m <sup>3</sup> /d
Maximum rate/hour	62,688 m <sup>3</sup> /h	Min efflux velocity	19.7 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	20.2 °C(avg)
For Combustion Sources:			
Volume Terms expressed as:	<input checked="" type="checkbox"/> wet.	<input type="checkbox"/> dry.	%O <sub>2</sub>

(v) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	8 hr/day	260 day/yr
----------------------------	-----------	----------	------------

\* Emissions are periodic and related to requirements. The ventilation will not be switched on for the full period described immediately above.





IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	EF 6.1
Source of Emission:	Upholstery Workshop
Location:	Extract from Mechanical Workshop Upper level main roof
Grid Ref: (12 digit, 6E, 6N)	E137847 N162379
<b>Vent Details</b>	
Diameter:	0.6m
Height above Ground (m):	1.26m
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	210,702 m <sup>3</sup> /d	Maximum/day	225,866 m <sup>3</sup> /d
Maximum rate/hour	28,233 m <sup>3</sup> /h	Min efflux velocity	21 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	20.5 °C(avg)
For Combustion Sources:			
Volume Terms expressed as:	<input type="checkbox"/> wet.	<input checked="" type="checkbox"/> dry.	%O <sub>2</sub>

(vi) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	8 hr/day	260 day/yr
----------------------------	-----------	----------	------------

\* Emissions are periodic and related to requirements. The ventilation will not be switched on for the full period described immediately above.



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	EF 6.6
Source of Emission:	Central dust extract
Location:	Central Dust Extract from Workshops
Grid Ref: (12 digit, 6E, 6N)	E137859 N162399
<b>Vent Details</b>	
Diameter:	1.8 x 1.1m (louvered panel)
Height above Ground (m):	5.36m
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	144,248 m <sup>3</sup> /d	Maximum/day	144,248 m <sup>3</sup> /d
Maximum rate/hour	18,031 m <sup>3</sup> /h	Min. efflux velocity	29 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	19 °C(avg)
For Combustion Sources:			
Volume Terms expressed as: <input type="checkbox"/> wet. <input checked="" type="checkbox"/> dry. %O <sub>2</sub>			

(vii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	24 hr/day	365 day/yr
----------------------------	-----------	-----------	------------



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	GE1
Source of Emission:	Glueing
Location:	Interior Workshop Extracts Lower level main roof
Grid Ref: (12 digit, 6E, 6N)	E137848 N162381
<b>Vent Details</b>	
Diameter:	0.315m
Height above Ground (m):	1.45m
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	11,771 m <sup>3</sup> /d	Maximum/day	31,390 m <sup>3</sup> /d
Maximum rate/hour	3,924 m <sup>3</sup> /h	Min efflux velocity	15.2 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	21.7 °C(avg)
For Combustion Sources:			
Volume Terms expressed as:	<input type="checkbox"/> wet.	<input checked="" type="checkbox"/> dry.	%O <sub>2</sub>

(viii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	7.5 hr/day	260 day/yr
----------------------------	-----------	------------	------------

\* Emissions are periodic and related to requirements. The ventilation will not be switched on for the full period described immediately above.



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	TV 1
Source of Emission:	Fuel tank venting
Location:	Extract from Maintenance hangar Main roof upper level
Grid Ref: (12 digit, 6E, 6N)	E137795 N162351
<b>Vent Details</b>	
Diameter:	0.145m
Height above Ground (m):	0.99m
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	14,420 m <sup>3</sup> /d	Maximum/day	14,420 m <sup>3</sup> /d
Maximum rate/hour	1,802 m <sup>3</sup> /h	Min efflux velocity	32.6 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	19.6 °C(avg)
For Combustion Sources:			
Volume Terms expressed as:	<input type="checkbox"/> wet.	<input checked="" type="checkbox"/> dry.	%O <sub>2</sub>

(ix) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	4 hr/day	24 day/yr
----------------------------	-----------	----------	-----------

\* The ventilation will not be switched on for the full period described immediately above.



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	TV 2
Source of Emission:	Fuel tank venting
Location:	Main building upper level
Grid Ref: (12 digit, 6E, 6N)	E137795 N162351
<b>Vent Details</b>	
Diameter:	0.145m
Height above Ground (m):	0.99m
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	15,924 m <sup>3</sup> /d	Maximum/day	15,924 m <sup>3</sup> /d
Maximum rate/hour	1,990 m <sup>3</sup> /h	Min efflux velocity	36 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	19.6 °C(avg)
For Combustion Sources:			
Volume Terms expressed as: <input type="checkbox"/> wet. <input checked="" type="checkbox"/> dry. %O <sub>2</sub>			

(x) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	4 hr/day	24 day/yr
----------------------------	-----------	----------	-----------

\* The ventilation will not be switched on for the full period described immediately above.

**TABLE E.1(ii) MAIN EMISSIONS TO ATMOSPHERE** (1 page for each emission point)

**Emission Point:**

Emission Point Ref. No.	TV 3
Source of Emission:	Fuel tank venting
Location:	Main building upper level
Grid Ref: (12 digit, 6E, 6N)	E137888 N162403
<b>Vent Details</b>	
Diameter:	0.145m
Height above Ground (m):	0.996m
Date of commencement of emission:	October 1992

**Characteristics of Emission:**

(i) Volume to be emitted:			
Average/day	8,941 m <sup>3</sup> /d	Maximum/day	8,941 m <sup>3</sup> /d
Maximum rate/hour	1,118 m <sup>3</sup> /h	Min. efflux velocity	20 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	18.4 °C(avg)
For Combustion Sources:			
Volume Terms expressed as: <input type="checkbox"/> wet. <input checked="" type="checkbox"/> dry. %O <sub>2</sub>			

(xi) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up/shut-down to be included*):

Periods of Emission (avg)*	60 min/hr	4 hr/day	24 day/yr
----------------------------	-----------	----------	-----------

\* The ventilation will not be switched on for the full period described immediately above.





IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	TV 4
Source of Emission:	Fuel tank venting
Location:	Extract from Maintenance hangar Main roof upper level
Grid Ref: (12 digit, 6E, 6N)	E137907 N162417
<b>Vent Details</b>	
Diameter:	0.145m
Height above Ground (m):	0.996m
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	14,597 m <sup>3</sup> /d	Maximum/day	14597 m <sup>3</sup> /d
Maximum rate/hour	1,825 m <sup>3</sup> /h	Min efflux velocity	33 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	19.1 °C(avg)
For Combustion Sources:			
Volume Terms expressed as:	<input type="checkbox"/> wet.	<input checked="" type="checkbox"/> dry.	%O <sub>2</sub>

(xii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	4 hr/day	24 day/yr
----------------------------	-----------	----------	-----------

\* The ventilation will not be switched on for the full period described immediately above.



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	EF 4.1
Source of Emission:	Toilet Extract
Location:	Central toilet extract
Grid Ref: (12 digit, 6E, 6N)	E137946 N162436
<b>Vent Details</b>	
Diameter:	0.60m
Height above Ground (m):	1.32m
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	215,145 m <sup>3</sup> /d	Maximum/day	215,145 m <sup>3</sup> /d
Maximum rate/hour	14,768 m <sup>3</sup> /h	Min. efflux velocity	15.6 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	20.8 °C(avg)
For Combustion Sources:			
Volume Terms expressed as:	<input type="checkbox"/> wet.	<input checked="" type="checkbox"/> dry.	%O <sub>2</sub>

(xiii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	10 hr/day	260 day/yr
----------------------------	-----------	-----------	------------

\* The ventilation will not be switched on for the full period described immediately above.



IPPC Application Form

TABLE E.1(ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	RA 4
Source of Emission:	Office Ventilation
Location:	Central Office Ventilation Upper level main roof
Grid Ref: (12 digit, 6E, 6N)	E137936 N162434
<b>Vent Details</b>	
Diameter:	0.9m
Height above Ground (m):	1.2m
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	270,750 m <sup>3</sup> /d	Maximum/day	298,225 m <sup>3</sup> /d
Maximum rate/hour	37,278 m <sup>3</sup> /h	Min efflux velocity	17.5 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	21 °C(avg)
For Combustion Sources:			
Volume Terms expressed as:	<input type="checkbox"/> wet.	<input checked="" type="checkbox"/> dry.	%O <sub>2</sub>

(xiv) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	8 hr/day	260 day/yr
----------------------------	-----------	----------	------------



IPPC Application Form

TABLE E.1(ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	EF 1.1
Source of Emission:	Canteen
Location:	Canteen extract Upper level main roof
Grid Ref: (12 digit, 6E, 6N)	E138001 N162474
Vent Details	
Diameter:	0.915m
Height above Ground (m):	1.21m
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	234,562 m <sup>3</sup> /d	Maximum/day	234,562 m <sup>3</sup> /d
Maximum rate/hour	25,100 m <sup>3</sup> /h	Min efflux velocity	11.4 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	20.6 °C(avg)
For Combustion Sources:			
Volume Terms expressed as:	<input type="checkbox"/> wet.	<input checked="" type="checkbox"/> dry.	%O <sub>2</sub>

(xv) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	8 hr/day	260 day/yr
----------------------------	-----------	----------	------------

**TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE** (1 page for each emission point)

**Emission Point:**

Emission Point Ref. No.	EF 6.2/6.3
Source of Emission:	Toilet Extract
Location:	Central toilet extract
Grid Ref: (12 digit, 6E, 6N)	E137837 N162376
<b>Vent Details</b>	
Diameter:	0.4m
Height above Ground (m):	1.32m
Date of commencement of emission:	October 1992

**Characteristics of Emission:**

<b>(i) Volume to be emitted:</b>			
Average/day	124,745 m <sup>3</sup> /d	Maximum/day	124,745 m <sup>3</sup> /d
Maximum rate/hour	11,571 m <sup>3</sup> /h	Min efflux velocity	27.5 m.sec <sup>-1</sup>
<b>(ii) Other factors</b>			
Temperature	°C(max)	°C(min)	20.7 °C(avg)
For Combustion Sources:			
Volume Terms expressed as:		<input type="checkbox"/> wet.	<input checked="" type="checkbox"/> dry.      %O <sub>2</sub>

(xvi) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up/shut-down to be included*):

Periods of Emission (avg)*	60 min/hr	10 hr/day	260 day/yr
----------------------------	-----------	-----------	------------



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	RA 6
Source of Emission:	Office Ventilation
Location:	Central Office Ventilation Main building lower level roof
Grid Ref: (12 digit, 6E, 6N)	E137905 N162410
<b>Vent Details</b>	
Diameter:	2.35m x 1.5m (louvered vent)
Height above Ground (m):	Main building lower level
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	422,766 m <sup>3</sup> /d	Maximum/day	453,185 m <sup>3</sup> /d
Maximum rate/hour	56,648 m <sup>3</sup> /h	Min efflux velocity	4.8 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	20.6 °C(avg)
For Combustion Sources:			
Volume Terms expressed as:	<input type="checkbox"/> wet.	<input checked="" type="checkbox"/> dry.	%O <sub>2</sub>

(xvii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	8 hr/day	260 day/yr
----------------------------	-----------	----------	------------

\* The ventilation will not be switched on for the full period described immediately above.





IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	HV 1
Source of Emission:	Maintenance Hangar humidity vent
Location:	Maintenance hangar main building
Grid Ref: (12 digit, 6E, 6N)	E137819 N162335
<b>Vent Details</b>	
Diameter:	0.5m x 0.5m (Capped vent)
Height above Ground (m):	
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	8,705 m <sup>3</sup> /d	Maximum/day	69,638 m <sup>3</sup> /d
Maximum rate/hour	8,705 m <sup>3</sup> /h	Min efflux velocity	10.1 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	°C(avg)
For Combustion Sources:			
Volume Terms expressed as: <input type="checkbox"/> wet. <input type="checkbox"/> dry.			%O <sub>2</sub>

(xviii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up/shut-down to be included*):

Periods of Emission (avg)*	60 min/hr	4 hr/day	60 day/yr
----------------------------	-----------	----------	-----------

\* Winter months only

**TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE** (1 page for each emission point)

**Emission Point:**

Emission Point Ref. No.	HV 2
Source of Emission:	Maintenance Hangar humidity vent
Location:	Maintenance hangar main building
Grid Ref: (12 digit, 6E, 6N)	E137849 N162352
<b>Vent Details</b>	
Diameter:	0.5m x 0.5m (Capped vent)
Height above Ground (m):	
Date of commencement of emission:	October 1992

**Characteristics of Emission:**

(i) Volume to be emitted:			
Average/day	8,705 m <sup>3</sup> /d	Maximum/day	69,638 m <sup>3</sup> /d
Maximum rate/hour	8,705 m <sup>3</sup> /h	Min efflux velocity	10.1 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	°C(avg)
For Combustion Sources:			
Volume Terms expressed as: <input type="checkbox"/> wet. <input type="checkbox"/> dry.			%O <sub>2</sub>

(xix) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up/shut-down to be included*):

Periods of Emission (avg)*	60 min/hr	4 hr/day	60 day/yr
----------------------------	-----------	----------	-----------

\* Winter months only



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	HV 3
Source of Emission:	Maintenance Hangar humidity vent
Location:	Maintenance hangar main building
Grid Ref: (12 digit, 6E, 6N)	E137887 N162378
<b>Vent Details</b>	
Diameter:	0.5m x 0.5m (Capped vent)
Height above Ground (m):	
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	8,705 m <sup>3</sup> /d	Maximum/day	69,638 m <sup>3</sup> /d
Maximum rate/hour	8,705 m <sup>3</sup> /h	Min efflux velocity	10.1 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	°C(avg)
For Combustion Sources:			
Volume Terms expressed as: <input checked="" type="checkbox"/> wet. <input type="checkbox"/> dry.			%O <sub>2</sub>

(xx) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	4 hr/day	60 day/yr
----------------------------	-----------	----------	-----------

\* Winter months only



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	HV 4
Source of Emission:	Maintenance Hangar humidity vent
Location:	Maintenance hangar main building
Grid Ref: (12 digit, 6E, 6N)	E137924 N162400
<b>Vent Details</b>	
Diameter:	0.5m x 0.5m (Capped vent)
Height above Ground (m):	
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	8,705 m <sup>3</sup> /d	Maximum/day	69,638 m <sup>3</sup> /d
Maximum rate/hour	8,705 m <sup>3</sup> /h	Min efflux velocity	10.1 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	°C(avg)
For Combustion Sources:			
Volume Terms expressed as:	<input type="checkbox"/> wet.	<input type="checkbox"/> dry.	%O <sub>2</sub>

(xxi) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up/shut-down to be included*):

Periods of Emission (avg)*	60 min/hr	4 hr/day	60 day/yr
----------------------------	-----------	----------	-----------

\* Winter months only



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	HV 5
Source of Emission:	Maintenance Hangar humidity vent
Location:	Maintenance hangar main building
Grid Ref: (12 digit, 6E, 6N)	E137829 N162320
<b>Vent Details</b>	
Diameter:	0.5m x 0.5m (Capped vent)
Height above Ground (m):	
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	8,705 m <sup>3</sup> /d	Maximum/day	69,638 m <sup>3</sup> /d
Maximum rate/hour	8,705 m <sup>3</sup> /h	Min efflux velocity	10.1 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	°C(avg)
For Combustion Sources:			
Volume Terms expressed as: <input type="checkbox"/> wet <input type="checkbox"/> dry.			%O <sub>2</sub>

(xxii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	4 hr/day	60 day/yr
----------------------------	-----------	----------	-----------

\* Winter months only

**TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE** (1 page for each emission point)

**Emission Point:**

Emission Point Ref. No.	HV 6
Source of Emission:	Maintenance Hangar humidity vent
Location:	Maintenance hangar main building
Grid Ref: (12 digit, 6E, 6N)	E137859 N162337
<b>Vent Details</b>	
Diameter:	0.5m x 0.5m (Capped vent)
Height above Ground (m):	
Date of commencement of emission:	October 1992

**Characteristics of Emission:**

<b>(i) Volume to be emitted:</b>			
Average/day	8,705 m <sup>3</sup> /d	Maximum/day	69,638 m <sup>3</sup> /d
Maximum rate/hour	8,705 m <sup>3</sup> /h	Min efflux velocity	10.1 m.sec <sup>-1</sup>
<b>(ii) Other factors</b>			
Temperature	°C(max)	°C(min)	°C(avg)
For Combustion Sources:			
Volume Terms expressed as: <input checked="" type="checkbox"/> wet. <input type="checkbox"/> dry.			%O <sub>2</sub>

(xxiii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up/shut-down to be included*):

Periods of Emission (avg)*	60 min/hr	4 hr/day	60 day/yr
----------------------------	-----------	----------	-----------

\* Winter months only





IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	HV 7
Source of Emission:	Maintenance Hangar humidity vent
Location:	Maintenance hangar main building
Grid Ref: (12 digit, 6E, 6N)	E137901 N162363
<b>Vent Details</b>	
Diameter:	0.5m x 0.5m (Capped vent)
Height above Ground (m):	
Date of commencement of emission:	October 1992

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	8,705 m <sup>3</sup> /d	Maximum/day	69,638 m <sup>3</sup> /d
Maximum rate/hour	8,705 m <sup>3</sup> /h	Min efflux velocity	10.1 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	°C(avg)
For Combustion Sources:			
Volume Terms expressed as:	<input type="checkbox"/> wet.	<input type="checkbox"/> dry.	%O <sub>2</sub>

(xxiv) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	4 hr/day	60 day/yr
----------------------------	-----------	----------	-----------

\* Winter months only



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	HV 8
Source of Emission:	Maintenance Hangar humidity vent
Location:	Maintenance hangar main building
Grid Ref: (12 digit, 6E, 6N)	E137931 N162385
<b>Vent Details</b>	
Diameter:	0.5m x 0.5m (Capped vent)
Height above Ground (m):	
Date of commencement of emission:	October 1992

Characteristics of Emission:

<b>(i) Volume to be emitted:</b>			
Average/day	8,705 m <sup>3</sup> /d	Maximum/day	69,638 m <sup>3</sup> /d
Maximum rate/hour	8,705 m <sup>3</sup> /h	Min efflux velocity	10.1 m.sec <sup>-1</sup>
<b>(ii) Other factors</b>			
Temperature	°C(max)	°C(min)	°C(avg)
For Combustion Sources:			
Volume Terms expressed as: <input type="checkbox"/> wet <input type="checkbox"/> dry. _____ %O <sub>2</sub>			

(xxv) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	4 hr/day	60 day/yr
----------------------------	-----------	----------	-----------

\* Winter months only



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	EF 100
Source of Emission:	Clean-room
Location:	On roof of new building overhead clean-room
Grid Ref: (12 digit, 6E, 6N)	
<b>Vent Details</b>	
Diameter:	0.7 x 0.7 ea to roof cowl
Height above Ground (m):	
Date of commencement of emission:	1999

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	77,702 m <sup>3</sup> /d	Maximum/day	207,446.4 m <sup>3</sup> /d
Maximum rate/hour	8643.6 m <sup>3</sup> /h	Min efflux velocity	4.90 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	21 °C(avg)
For Combustion Sources:			
Volume Terms expressed as: <input type="checkbox"/> wet. <input type="checkbox"/> dry. %O <sub>2</sub>			

(xxvi) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	9 hr/day	60 day/yr
----------------------------	-----------	----------	-----------

\*Air conditioning is provided by all air constant volume fresh air AHU which is then exhausted to air using a low level exhaust system.



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	EF 101
Source of Emission:	Extract booths – Composite Shop – new building
Location:	On roof of new building overhead preparation room
Grid Ref: (12 digit, 6E, 6N)	
<b>Vent Details</b>	
Diameter:	0.7 x 0.7 ea to roof cowl
Height above Ground (m):	
Date of commencement of emission:	1999

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	91,789 m <sup>3</sup> /d	Maximum/day	244,771, m <sup>3</sup> /d
Maximum rate/hour	10,198 m <sup>3</sup> /h	Min efflux velocity	5.78 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	21 °C(avg)
For Combustion Sources:			
Volume Terms expressed as:	<input type="checkbox"/> wet.	<input type="checkbox"/> dry.	%O <sub>2</sub>

(xxvii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	9 hr/day	60 day/yr
----------------------------	-----------	----------	-----------



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	EF 102
Source of Emission:	Extract booths – Composite Shop – new building
Location:	On roof of new building overhead preparation room
Grid Ref: (12 digit, 6E, 6N)	
Vent Details	
Diameter:	0.7 x 0.7 ea to roof cowl
Height above Ground (m):	
Date of commencement of emission:	1999

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	98,960 m <sup>3</sup> /d	Maximum/day	263,174 m <sup>3</sup> /d
Maximum rate/hour	10965.6 m <sup>3</sup> /h	Min efflux velocity	6.21 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	°C(avg)
For Combustion Sources:			
Volume Terms expressed as: <input checked="" type="checkbox"/> wet. <input type="checkbox"/> dry.			%O <sub>2</sub>

(xxviii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	9 hr/day	60 day/yr
----------------------------	-----------	----------	-----------



IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	EF 103
Source of Emission:	Break room Extract
Location:	On roof of new building overhead break-room
Grid Ref: (12 digit, 6E, 6N)	
<b>Vent Details</b>	
Diameter:	800 x 400mm ra. From below
Height above Ground (m):	
Date of commencement of emission:	1999

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	93,960 m <sup>3</sup> /d	Maximum/day	250,560 m <sup>3</sup> /d
Maximum rate/hour	10,440 m <sup>3</sup> /h	Min efflux velocity	9.06 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	20 °C(avg)
For Combustion Sources:			
Volume Terms expressed as: <input type="checkbox"/> wet. <input type="checkbox"/> dry. _____ %O <sub>2</sub>			

(xxix) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr 9 hr/day 60 day/yr
----------------------------	------------------------------





IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	EF 104
Source of Emission:	Toilet extract – new building
Location:	On roof of new building overhead toilets
Grid Ref: (12 digit, 6E, 6N)	
<b>Vent Details</b>	
Diameter:	400 x 200ra. To roof exhaust cowl
Height above Ground (m):	
Date of commencement of emission:	1999

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	15,228 m <sup>3</sup> /d	Maximum/day	40,608 m <sup>3</sup> /d
Maximum rate/hour	1,692 m <sup>3</sup> /h	Min efflux velocity	5.875 sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	°C(avg)
For Combustion Sources:			
Volume Terms expressed as: <input type="checkbox"/> wet. <input type="checkbox"/> dry. %O <sub>2</sub>			

(xxx) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr	9 hr/day	260 day/yr
----------------------------	-----------	----------	------------





IPPC Application Form

TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE (1 page for each emission point)

Emission Point:

Emission Point Ref. No.	EF 105
Source of Emission:	Sanding room – new building
Location:	On roof of new building overhead preparation room
Grid Ref: (12 digit, 6E, 6N)	
<b>Vent Details</b>	
Diameter:	900 x 500mm duct 200 x 800mm ea external wall louver
Height above Ground (m):	
Date of commencement of emission:	1999

Characteristics of Emission:

(i) Volume to be emitted:			
Average/day	52,099 m <sup>3</sup> /d	Maximum/day	138,931 m <sup>3</sup> /d
Maximum rate/hour	5,788 m <sup>3</sup> /h	Min efflux velocity	10.05 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	20 °C(avg)
For Combustion Sources:			
Volume Terms expressed as:	<input type="checkbox"/> wet.	<input type="checkbox"/> dry.	%O <sub>2</sub>

(xxxii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)*	60 min/hr 9 hr/day 60 day/yr
----------------------------	------------------------------

**TABLE E.1 (ii) MAIN EMISSIONS TO ATMOSPHERE** (1 page for each emission point)

**Emission Point:**

Emission Point Ref. No.	EF 106
Source of Emission:	Sanding room – new building
Location:	On roof of new building overhead preparation room
Grid Ref: (12 digit, 6E, 6N)	
<b>Vent Details</b>	
Diameter:	900 x 500mm duct 200 x 800mm ea external wall louver
Height above Ground (m):	
Date of commencement of emission:	1999

**Characteristics of Emission:**

(i) Volume to be emitted:			
Average/day	50,025.6 m <sup>3</sup> /d	Maximum/day	133,401 m <sup>3</sup> /d
Maximum rate/hour	5558.4 m <sup>3</sup> /h	Min efflux velocity	9.65 m.sec <sup>-1</sup>
(ii) Other factors			
Temperature	°C(max)	°C(min)	20 °C(avg)
For Combustion Sources:			
Volume Terms expressed as: <input type="checkbox"/> wet. <input type="checkbox"/> dry. _____ %O <sub>2</sub>			

(xxxii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up/shut-down to be included*):

Periods of Emission (avg)*	60 min/hr 9 hr/day 60 day/yr
----------------------------	------------------------------

**Table E.1 (iii) MAIN EMISSIONS TO ATMOSPHERE - Chemical Characteristics of the emission** (1 table per emission point)

Emission Point Reference Number: EF 8/9Painting Hangar Extract

Parameter	Prior to treatment <sup>(1)</sup>		Kg/h	Brief description of treatment	mg/Nm <sup>3</sup>		As discharged <sup>(1)</sup>		Kg/year	
	Avg	Max			Avg	Max	Avg	Max	Avg	Max
Xylene/Organics				Pre filter, filtrair VNF 290 3,600m <sup>3</sup> /hr Bag filter Hi Flo 85	25.22		0.12		1057	

Consent of copyright owner required for any other use.  
For inspection purpose only.

- Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0°C, 101.3kPa). Wet/dry should be the same as given in Table E.1(ii) unless stated otherwise.
- Xylene/Organics – based on the average values for 1999-2004. Figures based on the number of aircraft painted every year, assumes 10 hours per aircraft of organics.

**Table E.1 (iii) MAIN EMISSIONS TO ATMOSPHERE - Chemical Characteristics of the emission** (1 table per emission point)

Emission Point Reference Number: EF 10/11Painting Hangar Extract

Parameter	Prior to treatment <sup>(1)</sup>				Brief description of treatment	As discharged <sup>(1)</sup>					
	Mg/Nm <sup>3</sup>		Kg/h			mg/Nm <sup>3</sup>		Kg/h		Kg/year	
	Avg	Max	Avg	Max		Avg	Max	Avg	Max	Avg	Max
Xylene/Organics					Pre filter, filtrair VNF 290 3,600m <sup>3</sup> /hr Bag filter Hi Flo 85	25.22	310	0.356		3127	

1 Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0<sup>0</sup>C, 101.3kPa). Wet/dry should be the same as given in Table E.1(ii) unless stated otherwise.

\* Xylene/Organics – based on the average values for 1999-2004. Based on the number of aircraft painted every year, assumes 10 hours per aircraft of organics.

Consent of copying power required for any other use.

**Table E.1 (iii) MAIN EMISSIONS TO ATMOSPHERE - Chemical Characteristics of the emission** (1 table per emission point)

Emission Point Reference Number: EF 4.2

Parameter	Prior to treatment <sup>(1)</sup>				Brief description of treatment	As discharged <sup>(1)</sup>					
	Mg/Nm <sup>3</sup>		Kg/h			mg/Nm <sup>3</sup>		Kg/h		Kg/year*	
	Avg	Max	Avg	Max		Avg	Max	Avg	Max	Avg	Max
Particulates					Panel Filter camfil 40% efficiency 2100m <sup>3</sup> /hr	0.06		0.0016		3	

1 Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0<sup>0</sup>C, 101.3kPa). Wet/dry should be the same as given in Table E.1(ii) unless stated otherwise.

\* Based on 2003 monitoring results. Kg/year calculated based on actual hours run (this data was obtained from BMS system).

**Table E.1 (iii) MAIN EMISSIONS TO ATMOSPHERE - Chemical Characteristics of the emission** (1 table per emission point)

Emission Point Reference Number: EF 5.1

Parameter	Prior to treatment <sup>(1)</sup>				Brief description of treatment	As discharged <sup>(1)</sup>					
	Mg/Nm <sup>3</sup>		Kg/h			mg/Nm <sup>3</sup>		Kg/h		Kg/year*	
	Avg	Max	Avg	Max		Avg	Max	Avg	Max	Avg	Max
Particulates					Panel Filter camfil 40% efficiency 2100m <sup>3</sup> /hr	0.21		0.013		25.47	

1 Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0<sup>0</sup>C, 101.3kPa). Wet/dry should be the same as given in Table E.1(ii) unless stated otherwise.

\* Based on 2003 monitoring results. Kg/year calculated based on actual hours run (this data was obtained from BMS system).

Consent of copyright owner required for any other use.

**Table E.1 (iii) MAIN EMISSIONS TO ATMOSPHERE - Chemical Characteristics of the emission** (1 table per emission point)

Emission Point Reference Number: EF 6.1

Parameter	Prior to treatment <sup>(1)</sup>				Brief description of treatment	As discharged <sup>(1)</sup>					
	Mg/Nm <sup>3</sup>		Kg/h			mg/Nm <sup>3</sup>		Kg/h		Kg/year*	
	Avg	Max	Avg	Max		Avg	Max	Avg	Max	Avg	Max
Particulates					Panel Filter camfil 40% efficiency 2100m <sup>3</sup> /hr	0.23		0.0057		10.13	

1 Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0<sup>0</sup>C, 101.3kPa). Wet/dry should be the same as given in Table E.1(ii) unless stated otherwise.

\* Based on 2003 monitoring results. Kg/year calculated based on actual hours run (this data was obtained from BMS system).



**Table E.1 (iii) MAIN EMISSIONS TO ATMOSPHERE - Chemical Characteristics of the emission** (1 table per emission point)

Emission Point Reference Number: EF 6.6

Parameter	Prior to treatment <sup>(1)</sup>				Brief description of treatment	As discharged <sup>(1)</sup>					
	Mg/Nm <sup>3</sup>		Kg/h			mg/Nm <sup>3</sup>		Kg/h		Kg/year*	
	Avg	Max	Avg	Max		Avg	Max	Avg	Max	Avg	Max
Particulates					Cyclone dust control S3400, 3000m <sup>3</sup> /hr	0.3		0.0014		12.99	

1 Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0°C, 101.3kPa). Wet/dry should be the same as given in Table E.1(ii) unless stated otherwise.

\* Based on 2003 monitoring results. Kg/year calculated based on actual hours run (this data was obtained from BMS system).

Consent of copyright owner required for any other use.  
For inspection purposes only.

**Table E.1 (iv) EMISSIONS TO ATMOSPHERE - Minor atmospheric emissions**

Emission point Reference Numbers	Description	Emission details <sup>1</sup>				Abatement system employed
		Material	Mg/Nm <sup>3(2)</sup>	Kg/h	Kg/year	
BE1	Gas fired boiler emission  (modulating boiler)	% O <sub>2</sub>	<i>See Attachment E.1.A</i>			No abatement systems employed
		CO				
		NO <sub>x</sub>	Not available			
		SO <sub>2</sub>	Negligible			

- 1 The maximum emission should be stated for each material emitted, the concentration should be based on the maximum 30 minute mean.
- 2 Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0<sup>0</sup>C, 101.3kPa). Wet/dry should be clearly stated. Include reference oxygen conditions for combustion sources.

*See attachment E.1 for details of Efficiency Test on Burner BE1.*

*BE1 is a modulating boiler which means that it is designed to provide the amount of heat to match the load on the heating system at any particular time and constantly adjust to do this. Boiler BE1 is run for approximately 1,500 hrs/year*

**Table E.1 (iv) EMISSIONS TO ATMOSPHERE - Minor atmospheric emissions**

Emission point Reference Numbers	Description	Emission details <sup>1</sup>				Abatement system employed
		Material	Mg/Nm <sup>3(2)</sup>	Kg/h	Kg/year	
BE3	Kerosene fired boiler emission  (BE3 is now rarely used, but is available for standby use)	% O <sub>2</sub>	<i>See Attachment E.1.A</i>			No abatement systems employed
		CO				
		NO <sub>x</sub>	Not available			
		SO <sub>2</sub>	Negligible			

- 1 The maximum emission should be stated for each material emitted, the concentration should be based on the maximum 30 minute mean.
- 2 Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0°C, 101.3kPa). Wet/dry should be clearly stated. Include reference oxygen conditions for combustion sources.

*See attachment E.1 for details of Efficiency Test on Burner BE1.*

*Boiler BE3 is now rarely used but is available for standby use. This is the situation since BE2 was converted to dual fuel usage in 2002. BE3 operates on high flame and low flame thermostat control.*

### E.1.B Fugitive and Potential Emissions

Give summary details of fugitive and potential emissions in Table E.1(v).

In relation to activities listed in the Schedule of Council Directive 1999/13/EC on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations;

- specify the relevant category of activity in the Schedule
- specify how the requirements in relation to fugitive emissions will be met.

Full details and any supporting information should form Attachment **E.1.B**

#### Fugitive Emissions:

*The most significant emission sources at Shannon Aerospace Limited are those involving painting/stripping activities. There are 2 main emission sources from areas where painting and similar operations are conducted. These are as follows:*

*EF8/9 & EF10/11 – Painting and stripping activity in the Paint Hangar – 2 emission points*

*The hangar building has been identified as having potential for fugitive losses of volatile organic compounds (VOC's). The extraction systems are efficient to capture all of the organic vapour generated during the process. Fugitive emission losses will either occur during the paint stripping or the various painting and etching operations. The potential for fugitive emission losses in the various locations associated with paint application is now considered in the following sections.*

#### Fugitive Emissions from Paint Stripping Operations:

*Fugitive losses from paint stripping operations are not potentially significant. Quantities of stripping solution are applied to the body of the aircraft in liquid form to strip paint – typically 1000 litres for a large aircraft. During this period, the ventilation is always on and the doors of the hangar closed. Therefore the majority of the emissions will be collected by the extract system. Much of this material is collected with the stripped paint and disposed of as hazardous waste.*

*Formic acid based strippers are used at the facility. The main stripper used is Turco 6776 LO has a low VOC content (395 g/l). And most of this VOC is Benzyl alcohol, which is only moderately volatile. It has a vapour pressure of 0.013 Kpascals at 293 K, while the EU Solvents directive defines a VOC as anything with a vapour pressure of greater than 0.01Kpascals at 293 K. Due to its moderate volatility, this compound is not necessarily all evaporated to the atmosphere if measures are put in place to contain the VOC in stripper waste. Most of the applied solution is expected to be entrained in the stripping material which is being removed from the aircraft and will be disposed of without significant fugitive losses.*

Fugitive losses from Painting Operations:

The most significant painting activity is that which takes place in the Paint Hangar when a large aircraft is being painted. During a typical painting operation in the hangar, the ventilation is switched on during application and for the first two hours of the drying period. Therefore the emissions from the painting process are emitted through the exhaust stack during the period of maximum emissions. The ventilation is switched off during the further 8-10 hours the aircraft is allowed to dry. Therefore it is anticipated that 10-20% of the paint emissions would be emitted as fugitive emissions.

The majority of the solvent lost in the stripping and painting activities are total loss, hence the exemption from containment in the EU Solvents Directive (1999/13/EC). Notwithstanding this fact, the aircraft maintenance and painting industry does employ as part of a BAT approach the following general housekeeping measures to reduce other fugitive/incidental emissions -

- 3 Close containers after use
- 4 Use of lidded bins for wipe rags
- 5 Only mix correct amount of paint and mix immediately prior to use
- 6 Enclosed gun cleaning where ever practical
- 7 Barrel stripper waste as soon as reasonably practical after stripping has taken place.

A Fugitive emissions monitoring report carried out in 2002 is attached in Attachment E.1.B.

For inspection purposes only. Consent of copyright owner required for any other use.

## E.2 Emissions to Surface Waters

Tables E.2 (i) and E.2 (ii) must be completed.

A summary list of the emission points, together with maps, drawings and supporting documentation should be included as **Attachment No E.2**.

The applicant should address in particular any emission point where the substances listed in the Schedule of S.I. No. 394 of 2004 are emitted.

Details of all List I and List II substances listed in the Annex to EU Directive 76/464/EEC (as amended), contained in any emission must be presented. All surface water runoff and storm water drains discharging to surface water bodies must be included. A National Grid References (10 digit, 5E, 5N) must be given for all discharge points. The identity and type of receiving water (river, ditch, estuary, lake, etc.) must be stated.

For emissions outside the BAT guidance limit, a full evaluation of the existing abatement/treatment system must be provided. A planned programme of improvement towards meeting upgraded standards is required. This should highlight specific goals and a time scale, together with options for modification, upgrading or replacement as required to bring the emissions within the limits as set out in the BATNEEC guidance note(s).

### Emission Points to Surface Waters

*SW1 – Surface and Storm-water Run-off Emission Point)*

### Surface Water Layout

*A site layout showing the surface water drainage system is attached in Attachment E.3*

### Site Surface Water Collection System

*The surface water collection system at Shannon Aerospace Limited collects surface and storm-water runoff from roofs, site road, car park and concrete hardstanding paved areas.*

*The total catchment area for the collection system is in the order of 57,540m<sup>2</sup>, comprising:*

- (1) 21,600 m<sup>2</sup> from the roof areas*
- (2) 3,640 m<sup>2</sup> from the new building*
- (3) 14,300 m<sup>2</sup> from the site road and car park*
- (4) 18,000 m<sup>2</sup> from the concrete hardstanding paved areas.*

*The surface water discharges to a surface water culvert (1200 x 1825) then goes to an Aer Rianta Canal in Shannon town, and subsequently to the Shannon Estuary via a tidal sluice. The site surface water drains comprise of a main drainage line that encircles the hangar building and collects the flow from roof, car-park and concrete hardstanding areas.*

Monitoring of Surface Waters

Water samples for the monitoring of storm-water discharges at SW1 are collected at Surface water culvert. As per IPC licence conditions SW1 is monitored for pH, COD, odour and visual inspection monthly. See Attachment F for map showing emission monitoring points. See Attachment E.2 for details of monitoring data for 2004.

Meteorological Data

Meteorological data was obtained from Met Eireann for the nearest monitoring station to the site, Shannon Airport. This information is attached.

Potential Points of Contamination/Areas Most at Risk

The main potential risk for contamination of the surface water collection system at the site would be from the accidental spillage of hazardous substances during the transport and storage of materials, chemicals and waste products on site. Activities undertaken inside the main plant building, where hazardous substances are stored, are segregated from the surface water collection system and thus would constitute a minimal threat for migration into surface waters.

Also surface water run-off from buildings and the run-way is discharged via oil interceptors to the culvert and thence to a stream. All necessary precautions are taken to ensure that pollution of the surface water does not occur.

Specific storage, handling and emergency response procedures and containment structures are in place for dealing with accidental spillages, in order to minimise the risk of contamination to the surface water collection system. Spill and emergency containment measures are detailed in Section J of the IPPC Application form.

Consent of copyright required for any other use.  
For any other purpose only



**TABLE E.2 (i) EMISSIONS TO SURFACE WATERS**  
(1 page for each emission point)

**Emission Point:**

Emission Point Ref. No.	SW1 (Aer Rianta R.C. Culvert)
Source of Emission:	Storm Water
Location:	Storm Water – Storm & surface water go to surface water drain and thence to Aer Rianta R.C. Culvert to outer catchment drain, to tidal sluice and then to Drumgeely Creek in Shannon Estuary.
Grid Ref: (12 digit, 6E, 6N)	E13811 N16238
Name of receiving waters:	Shannon Estuary
Flow rate in receiving waters:	<u>Tidal</u> $m^3 \cdot sec^{-1}$ Dry Weather Flow <u>Not Applicable</u> $m^3 \cdot sec^{-1}$ 95%ile flow
Available waste assimilative capacity	<u>Not Applicable</u> $kg/day$

**Emission Details:**

(i) Volume to be emitted: Not Applicable			
Normal/day	Not Applicable $m^3$	Maximum/day	Not Applicable $m^3$
Maximum rate/hour	Not Applicable $m^3$		

(ii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up/shut-down to be included*):

Periods of Emission (avg)*	<u>Not Applicable</u> min/hr
	<u>Not Applicable</u> hr/day
	<u>Not Applicable</u> day/yr

\*Period during which flow occurs depends on level of rain-fall.

**Table E.2 (ii) EMISSIONS TO SURFACE WATERS - Characteristics of the emissions** (1 table per emission point)

**Emission point reference number:** SW1

Parameter	Prior to treatment				As discharged				% Efficiency
	Max. hourly average (mg/l)	Max. daily average (mg/l)	Kg/day	Kg/year	Max. hourly average (mg/l)	Max. daily average (mg/l)	Kg/day	Kg/year	
Uncontaminated surface water run-off	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

For inspection purposes only.  
Consent of copyright owner required for any other use.

### E.3 Emissions to Sewer

Tables E. 3(i) and E.3 (ii) should be completed.

A summary list of the emission points, together with maps, drawings and supporting documentation should be included as Attachment No E.3. Details of all List I and List II substances listed in the Annex to EU Directive 76/464/EEC (as amended), contained in any emission must be presented. All relevant information on the receiving sewer, including any effluent treatment/abatement systems, not already described, with schematics as appropriate should also be included in **Attachment No E.3**.

For emissions, outside BAT guidance limit (where given), a full evaluation of the existing abatement/treatment system must be provided. A planned programme of improvement towards meeting upgraded standards is required. This should highlight specific goals and a time scale, together with options for modification, upgrading or replacement as required to bring the emissions within any limits set out in the BAT guidance note(s).

#### Foul Sewer Emission Point List of Emission Points to Sewers

*A site layout showing the surface water drainage system is attached in Attachment E.2*

#### Foul Drainage Layout

*A site layout plan showing foul drainage layout is attached, see Attachment E.3.*

#### Description of the Effluent Collection System

*The main source of liquid effluent associated with the Shannon Aerospace Limited plant, which is discharged to sewer, is domestic effluent and water from tech-washing of aircraft.*

*(The wash-water from the aircraft stripping process is collected in a sump. Currently this water is transferred to IBC's or tanker truck and taken off-site by a licenced waste disposal contractor for treatment).*

*The foul sewer, which is illustrated in Attachment E.3, collects the wastewater from the office and canteen area, which includes the workers toilets and changing rooms.*

*The effluent is collected in a pumping station (sampling point S1) and transferred through to the Clare County sewer (formerly the SFADCo sewer).*

#### Details of List 1 and List 2 Substances

*While a number of List 1 and List 2 substances are used at the site, no effluent containing these substances are discharged from these processes. Consequently no List 1 or List 2 substances are discharged as an effluent emission.*

#### Effluent Emission Monitoring



IPPC Application Form

The effluent from S1 is analysed bi-monthly for pH, COD, BOD, SS and ammonia as per IPC licence requirements.

Water usage is also monitored. The Facilities Technician records daily values (Monday to Friday) of water leaving the site on jobcard JC153. This daily reading is taken from the meter located beside the composite sampler south of the Apron area.

Water Usage

Year	Water Usage (m <sup>3</sup> )
1998	18,312
1999	17,773
2000	21,165
2001	23,816
2002	18,777
2003	17,314

For inspection purposes only.  
Consent of copyright owner required for any other use.

**TABLE E. 3(i) EMISSIONS TO SEWERS**  
(1 page for each emission point)

**Emission Point:**

Emission Point Ref. No.	S-1
Location of connection to sewer:	Shannon Aerospace Pumping Station
Grid Ref: (12 digit, 6E, 6N)	
Name of receiving waters:	Clare County Council Sewer (formerly SFADCo sewer)
Name of sewage undertaker:	Clare County Council

**Emission Details:**

(i) Volume to be emitted:			
Normal/day	50 m <sup>3</sup>	Maximum/day	120 m <sup>3</sup>
Maximum rate/hour	15 m <sup>3</sup>		

(iii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (start-up/shut-down to be included):

Periods of Emission (avg)	<u>60</u> min/hr	<u>12</u> hr/day	<u>365</u> day/yr
---------------------------	------------------	------------------	-------------------

Consent of copyright owner required for any other use.  
For inspection purposes only.

(1 table per emission point)

**Table E.2 (ii) EMISSIONS TO SEWER - Characteristics of the emissions**

 Emission point reference number: S-1

Parameter	Prior to treatment			As discharged			% Efficiency		
	Max. hourly average (mg/l)	Max. daily average (mg/l)	Kg/day	Kg/year	Max. hourly average (mg/l)	Max. daily average (mg/l)		Kg/day	Kg/year
COD	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	1107	99.63	36365	Not applicable
BOD						221	19.89	7260	
SS						110	9.9	3613.5	
Ammonia (as N)						1.32	0.11	40.15	

Consent of Copyright owner required for any other use.  
For inspection purposes only.

#### E.4 Emissions to Ground

Describe the existing or proposed arrangements necessary to give effect to Articles 3,4,5,6, and 7 of Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution by certain dangerous substances.

The applicant should supply details of the nature and quality of the substance (agricultural and non-agricultural waste) to be landspread (slurry, effluent, ash, sludges etc) as well as the proposed application rates, periods of application and mode of application (e.g., pipe discharge, tanker).

For emissions outside the BAT guidance limit, a full evaluation of the existing abatement/treatment system must be provided. A planned programme of improvement towards meeting upgraded standards is required. This should highlight specific goals and a time scale, together with options for modification, upgrading or replacement as required to bring the emissions within the limits as set out in the BAT guidance note(s).

*Attachment N<sup>o</sup> E.4 is not used.*

For inspection purposes only.  
Consent of copyright owner required for any other use.





**TABLE E.4(i) EMISSIONS TO GROUND**

(1 page for each emission point)

**Emission Point or Area:**

Emission Point/Area Ref. No.	Not Applicable
Emission Pathway: (borehole, well, percolation area, soakaway, landspreading, etc.)	
Location	
Grid Ref: (10 digit, 5E, 5N)	
Elevation of discharge: (relative to Ordnance Datum)	
Aquifer classification for receiving groundwater body:	
Groundwater vulnerability assessment(including vulnerability rating):	
Identity and proximity of groundwater sources at risk (wells, springs, etc.):	
Identify and proximity of surface water bodies at risk:	

**Emission Details:**

(i) Volume to be emitted:			
Normal/day	$m^3$	Maximum/day	$m^3$
Maximum rate/hour	$m^3$		

Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up/shut-down to be included*):

Periods of Emission (avg)*	_____ min/hr	_____ hr/day	_____ day/yr
----------------------------	--------------	--------------	--------------

**Table E.4 (ii) EMISSIONS TO GROUND - Characteristics of the emissions** (1 table per emission point)

*Emission point/area reference number:* Not Applicable

Parameter	Prior to treatment				As discharged				% Efficiency
	Max. hourly average (mg/l)	Max. daily average (mg/l)	Kg/day	Kg/year	Max. hourly average (mg/l)	Max. daily average (mg/l)	Kg/day	Kg/year	

For inspection purposes only.  
Consent of copyright owner required for any other use.

**E.5 Noise Emissions**

Give particulars of the source, location, nature, level and the period or periods during which the noise emissions are made or are to be made.

Table E.5(i) should be completed, as relevant, for each source.

Supporting information should form **Attachment No. E.5**

For emissions outside the EPA Noise Guidance Note limit, a full evaluation of the existing abatement/treatment system must be provided. A planned programme of improvement towards meeting upgraded standards is required. This should highlight specific goals and a time scale, together with options for modification, upgrading or replacement as required to bring the emissions within the limits as set out in the guidance note.

*The 2003 noise survey is in Attachment N<sup>o</sup> E.5*

*Virtually all the activities at Shannon Aerospace Limited are located indoors within the facility. The amount of production related activity carried out on outdoors is negligible.*

*The main impact from Shannon Aerospace on the nearest sensitive locations is during engine testing. The period over which engine tests are performed varies considerably from a few minutes to up to an hour or longer. This normally comprises of engine testing at 25% power, 50% power, 75% power and full power. Testing at full power may last for approximately 3 minutes and may occur 2 to 3 times during an engine test.*

Consent of copyright owner is required for any other use.  
For internal purposes only.

**Table E.5 (i) NOISE EMISSIONS - Noise sources summary sheet**

Source	Emission point Ref. No.	Equipment Ref. no.	Sound Pressure <sup>1</sup> dBA at reference distance	Octave bands (Hz)								Impulsive or tonal qualities	Periods of emission	
				Sound Pressure <sup>1</sup> Levels dB (unweighted) per band										
				31.5	63	125	250	500	1K	2K	4K			8K
Cooler Unit	Not applicable	Not applicable	64	35	42	47	56	58	57	57	51	37	Tonal	Continuous
Fan Unit	Not applicable	Not applicable	70	40	50	48	54	65	65	65	57	48	Broadband	Continuous

1 For items of plant sound power levels may be used.

For inspection purposes only. Consent of copyright owner required for any other use.

**SECTION F CONTROL & MONITORING**

**Describe the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions for the installation/facility.**

**F.1: Treatment, Abatement and Control Systems**

Details of treatment/abatement systems (air and effluent emissions) should be included, together with schematics as appropriate.

For each emission point identified complete Table F.1(i) and include detailed descriptions and schematics of all abatement systems.

**Attachment No. F.1** should contain any supporting information.

Consideration of Malfunctions:

*The operations undertaken at Shannon Aerospace Limited are not reliant on automated equipment or process control systems.*

Abatement:

*There are two types of abatement systems used to reduce the main emissions to atmosphere from the facility, namely (i) Electrostatic Paint Spraying and (ii) Dust Filtration. See Section E.1.A for further details on this.*

*The roll filters on the air handling units (A1 & A2) do not have a back-up system. This is because the filters are replaced when indicated on Building Management System. The unit is condition based, and is monitored by the BMS. Calibration is inappropriate to this type of equipment.*

Consent to publish this document is granted for any other use.  
From inspection purposes only.



IPPC Application Form

TABLE F.1(i) ABATEMENT/TREATMENT CONTROL

Emission Point reference number: EF 8/9

Control <sup>1</sup> parameter	Equipment <sup>2</sup>	Equipment maintenance	Equipment calibration	Equipment back-up
Particulates	Particulate roll filter in air handling unit Pre-filter, filtrair VNF 290. Bag filter HI FLO85 3,600m <sup>3</sup> /hr. Reduction in particulates 0.35-0.45 microns = 63-70% Reduction in particulates 0.75-1 microns = 80-85% Reduction in particulates 2-3 microns = 99-100% - 85%	Condition based, monitoring by Building Management System	Calibration is inappropriate to this equipment	Not applicable, filters replaced when indicated on Building Management System

For inspection purposes only.  
Consent of copyright owner required for any other use.

Control <sup>1</sup> parameter	Monitoring to be carried out <sup>3</sup>	Monitoring equipment	Monitoring equipment calibration
Particulates	Particulate sampling and analysis carried out annually	As utilised by monitoring contractor	As required by monitoring contractor Q & A

- 1 List the operating parameters of the treatment/abatement system which control its function.
- 2 List the equipment necessary for the proper function of the abatement/treatment system
- 3 List the monitoring of the control parameter to be carried out.

**TABLE F.1(i) ABATEMENT/TREATMENT CONTROL**

**Emission Point reference number: EF 10/11**

Control <sup>1</sup> parameter	Equipment <sup>2</sup>	Equipment maintenance	Equipment calibration	Equipment back-up
Particulates	Particulate roll filter in air handling unit Pre-filter, filtrair VNF 290. Bag filter HI FLO85 3,600m <sup>3</sup> /hr. Reduction in particulates 0.35-0.45 microns = 63-70% Reduction in particulates 0.75-1 microns = 80-85% Reduction in particulates 2-3 microns = 99-100% – 85%	Condition based, monitoring by Building Management System	Calibration is inappropriate to this equipment	Not applicable, filters replaced when indicated on Building Management System

For inspection purposes only. Consent of copyright owner required for any other use.

Control <sup>1</sup> parameter	Monitoring to be carried out <sup>3</sup>	Monitoring equipment	Monitoring equipment calibration
Particulates	Particulate sampling and analysis carried out annually	As utilised by monitoring contractor	As required by monitoring contractor Q & A

- 1 List the operating parameters of the treatment/abatement system which control its function.
- 2 List the equipment necessary for the proper function of the abatement/treatment system
- 3 List the monitoring of the control parameter to be carried out.



**TABLE F.1(i) ABATEMENT/TREATMENT CONTROL**

Emission Point reference number: EF 4.2

Control <sup>1</sup> parameter	Equipment <sup>2</sup>	Equipment maintenance	Equipment calibration	Equipment back-up
Particulates	Panel Filter Camfil 40% efficiency 2100m <sup>3</sup> /hr	Condition based, monitoring by Building Management System	Calibration is inappropriate to this equipment	Not applicable, filters replaced when indicated on Building Management System

Control <sup>1</sup> parameter	Monitoring to be carried out <sup>3</sup>	Monitoring equipment	Monitoring equipment calibration
Particulates	Particulate sampling and analysis carried out annually	As utilised by monitoring contractor	As required by monitoring contractor Q & A

- 1 List the operating parameters of the treatment/abatement system which control its function.
- 2 List the equipment necessary for the proper function of the abatement/treatment system
- 3 List the monitoring of the control parameter to be carried out.



IPPC Application Form

TABLE F.1(i) ABATEMENT/TREATMENT CONTROL

Emission Point reference number: EF 5.1

Control <sup>1</sup> parameter	Equipment <sup>2</sup>	Equipment maintenance	Equipment calibration	Equipment back-up
Particulates	Panel Filter Camfil 40% efficiency 2100m <sup>3</sup> /hr	Condition based, monitoring by Building Management System	Calibration is inappropriate to this equipment	Not applicable, filters replaced when indicated on Building Management System

Control <sup>1</sup> parameter	Monitoring to be carried out <sup>3</sup>	Monitoring equipment	Monitoring equipment calibration
Particulates	Particulate sampling and analysis carried out annually	As utilised by monitoring contractor	As required by monitoring contractor Q & A

- 1 List the operating parameters of the treatment/abatement system which control its function.
- 2 List the equipment necessary for the proper function of the abatement/treatment system
- 3 List the monitoring of the control parameter to be carried out.

**TABLE F.1(i) ABATEMENT/TREATMENT CONTROL**

**Emission Point reference number:** EF 6.1

Control <sup>1</sup> parameter	Equipment <sup>2</sup>	Equipment maintenance	Equipment calibration	Equipment back-up
Particulates	Panel Filter Camfil 40% efficiency 2100m <sup>3</sup> /hr	Condition based, monitoring by Building Management System	Calibration is inappropriate to this equipment	Not applicable, filters replaced when indicated on Building Management System

Control <sup>1</sup> parameter	Monitoring to be carried out <sup>3</sup>	Monitoring equipment	Monitoring equipment calibration
Particulates	Particulate sampling and analysis carried out annually	As utilised by monitoring contractor	As required by monitoring contractor Q & A

- 1 List the operating parameters of the treatment/abatement system which control its function.
- 2 List the equipment necessary for the proper function of the abatement/treatment system
- 3 List the monitoring of the control parameter to be carried out.



IPPC Application Form

TABLE F.1(i) ABATEMENT/TREATMENT CONTROL

Emission Point reference number: EF 6.6

Control <sup>1</sup> parameter	Equipment <sup>2</sup>	Equipment maintenance	Equipment calibration	Equipment back-up
Particulates	Cyclone dust control S3400, 3000m <sup>3</sup> /hr. 99.89% efficiency used in conjunction with pleated filter	Condition based, monitoring by Building Management System	Calibration is inappropriate to this equipment	Not applicable, filters replaced when indicated on Building Management System

Control <sup>1</sup> parameter	Monitoring to be carried out <sup>3</sup>	Monitoring equipment	Monitoring equipment calibration
Particulates	Particulate sampling and analysis carried out annually	As utilised by monitoring contractor	As required by monitoring contractor Q & A

- 1 List the operating parameters of the treatment/abatement system which control its function.
- 2 List the equipment necessary for the proper function of the abatement/treatment system
- 3 List the monitoring of the control parameter to be carried out.



IPPC Application Form

TABLE F.1(i) ABATEMENT/TREATMENT CONTROL

Emission Point reference number: EF 101

Control <sup>1</sup> parameter	Equipment <sup>2</sup>	Equipment maintenance	Equipment calibration	Equipment back-up
VOC's	VCD and carbon filter	Condition based, monitoring by Building Management System	Calibration is inappropriate to this equipment	Not applicable, filters replaced when indicated on Building Management System

Control <sup>1</sup> parameter	Monitoring to be carried out <sup>3</sup>	Monitoring equipment	Monitoring equipment calibration
None	None	None	None

- 1 List the operating parameters of the treatment/abatement system which control its function.
- 2 List the equipment necessary for the proper function of the abatement/treatment system
- 3 List the monitoring of the control parameter to be carried out.



IPPC Application Form

TABLE F.1(i) ABATEMENT/TREATMENT CONTROL

Emission Point reference number: EF 102

Control <sup>1</sup> parameter	Equipment <sup>2</sup>	Equipment maintenance	Equipment calibration	Equipment back-up
VOC's	VCD and carbon filter	Condition based	Calibration is inappropriate to this equipment	Not applicable

Control <sup>1</sup> parameter	Monitoring to be carried out <sup>3</sup>	Monitoring equipment	Monitoring equipment calibration
None	None	None	None

- 1 List the operating parameters of the treatment/abatement system which control its function.
- 2 List the equipment necessary for the proper function of the abatement/treatment system
- 3 List the monitoring of the control parameter to be carried out.

For inspection purposes only.  
Consent of copyright owner required for any other use.



IPPC Application Form

TABLE F.1(i) ABATEMENT/TREATMENT CONTROL

Emission Point reference number: EF 105

Control <sup>1</sup> parameter	Equipment <sup>2</sup>	Equipment maintenance	Equipment calibration	Equipment back-up
Particulates	Dust extraction unit (Torit Unit) self-contained units with a dust filter. Unit vibrates after each cycle – dust falls into a drawer	Condition based	Calibration is inappropriate to this equipment	Not applicable

Control <sup>1</sup> parameter	Monitoring to be carried out <sup>3</sup>	Monitoring equipment	Monitoring equipment calibration
None	None	None	None

- 1 List the operating parameters of the treatment/abatement system which control its function.
- 2 List the equipment necessary for the proper function of the abatement/treatment system
- 3 List the monitoring of the control parameter to be carried out.





IPPC Application Form

TABLE F.1(i) ABATEMENT/TREATMENT CONTROL

Emission Point reference number: EF 106

Control <sup>1</sup> parameter	Equipment <sup>2</sup>	Equipment maintenance	Equipment calibration	Equipment back-up
Particulates	Dust extraction unit (Torit Unit) self-contained units with a dust filter. Unit vibrates after each cycle – dust falls into a drawer	Condition based	Calibration is inappropriate to this equipment	Not applicable

Control <sup>1</sup> parameter	Monitoring to be carried out <sup>3</sup>	Monitoring equipment	Monitoring equipment calibration
None	None	None	None

- 1 List the operating parameters of the treatment/abatement system which control its function.
- 2 List the equipment necessary for the proper function of the abatement/treatment system
- 3 List the monitoring of the control parameter to be carried out

## F.2 EMISSIONS MONITORING AND SAMPLING POINTS

Identify monitoring and sampling points and outline proposals for monitoring **emissions**. Table F.2(i) should be completed (where relevant) for air emissions, for emission to surface waters, for emissions to sewers, for emissions to ground, and for waste emissions. Where **ambient** environment monitoring is carried out or proposed, Table F.2(ii) should be completed as relevant for each environmental medium.

Include details of monitoring/sampling locations and methods.

**Attachment No. F.2** should contain any supporting information.

*Include layout plan showing monitoring locations.*

For inspection purposes only.  
Consent of copyright owner required for any other use.

**Table F.2(i) EMISSIONS MONITORING AND SAMPLING POINTS**

(1 table per monitoring point)

*Emission point reference No:* EF 4.2

Parameter	Monitoring frequency	Accessibility of Sampling Points	Sampling Method	Analysis method/technique
Particulates	Annually	From roof	BS 3405	Isokinetic dust sampling

For inspection purposes only.  
Consent of copyright owner required for any other use.

Table F.2(i) EMISSIONS MONITORING AND SAMPLING POINTS -

(1 table per monitoring point)

Emission point reference No: EF 5.1

Parameter	Monitoring frequency	Accessibility of Sampling Points	Sampling Method	Analysis method/technique
Particulates	Annually	From roof	BS 3405	Isokinetic dust sampling

For inspection purposes only.  
Consent of copyright owner required for any other use.

Table F.2(i) EMISSIONS MONITORING AND SAMPLING POINTS

(1 table per monitoring point)

Emission point reference No: EF 6.1

Parameter	Monitoring frequency	Accessibility of Sampling Points	Sampling Method	Analysis method/technique
Particulates	Annually	From roof	BS 3405	Isokinetic dust sampling

For inspection purposes only.  
Consent of copyright owner required for any other use.

Table F.2(i) EMISSIONS MONITORING AND SAMPLING POINTS

(1 table per monitoring point)

Emission point reference No: EF 6.6

Parameter	Monitoring frequency	Accessibility of Sampling Points	Sampling Method	Analysis method/technique
Particulates	Annually	From roof	BS 3405	Isokinetic dust sampling

For inspection purposes only.  
Consent of copyright owner required for any other use.

Table F.2 (i) EMISSIONS MONITORING AND SAMPLING POINTS

(1 table per monitoring point)

Emission point reference No: EF8/9 – Painting Hangar Extract (Painting Hangar) M5

Parameter	Monitoring frequency	Accessibility of Sampling Points	Sampling Method	Analysis method/technique
Total Organics	Bi-annually	From inside painting hangar	VOC meter (Flame Ionisation Detector)	GC – FID

For inspection purposes only.  
Consent of copyright owner required for any other use.



**Table F.2 (i) EMISSIONS MONITORING AND SAMPLING POINTS**

(1 table per monitoring point)

**Emission point reference No:** EF10/11 – Painting Hangar Extract (Painting Hangar) P1

Parameter	Monitoring frequency	Accessibility of Sampling Points	Sampling Method	Analysis method/technique
Total Organics	Bi-annually	From inside painting hangar	VOC meter (Flame Ionisation Detector)	GC – FID

For inspection purposes only.  
Consent of copyright owner required for any other use.

**Table F.2 (i) EMISSIONS MONITORING AND SAMPLING POINTS**

(1 table per monitoring point)

*Emission point reference No:* SW-1

Parameter	Monitoring frequency	Accessibility of Sampling Points	Sampling Method	Analysis method/technique
Visual inspection	Monthly	Surface Water culvert. Due to its air-side location, culvert can only be accessed with escort provided by Aer Rianta.	Visual inspection	Visual inspection
pH	Monthly	Surface Water culvert. Due to its air-side location, culvert can only be accessed with escort provided by Aer Rianta.	Grab sample	pH electrode/meter
COD	Monthly	Surface Water culvert. Due to its air-side location, culvert can only be accessed with escort provided by Aer Rianta.	Grab sample	Standard Method <sup>Note 1</sup>

Note 1: "Standard Methods for the Examination of Water and Wastewater".

**Table F.2 (i) EMISSIONS MONITORING AND SAMPLING POINTS**

(1 table per monitoring point)

**Emission point reference No:**           S-1          

Parameter	Monitoring frequency	Accessibility of Sampling Points	Sampling Method	Analysis method/technique
Flow	Continuous	Pumping Station	Continuous	Electromagnetic flowmeter
pH	Bi-monthly	Pumping Station	24hr composite sample	pH electrode/meter
BOD	Bi-monthly	Pumping Station	24hr composite sample	Standard Method <sup>Note 1</sup>
COD	Bi-monthly	Pumping Station	24hr composite sample	Standard Method <sup>Note 1</sup>
Suspended Solids	Bi-monthly	Pumping Station	24hr composite sample	Standard Method <sup>Note 1</sup>
Ammonia (as N)	Bi-monthly	Pumping Station	24hr composite sample	Standard Method <sup>Note 1</sup>
Organic Solvents	Bi-annually	Pumping Station	24hr composite sample	Standard Method <sup>Note 1</sup>
Oils, Fats & Greases	Bi-annually	Pumping Station	24hr composite sample	Standard Method <sup>Note 1</sup>
Toxicity	Annually	Pumping Station	24hr composite sample	Method 6.1 based on BS6068 Method 6.2 based on BS EN ISO 11348-3:1999

**SECTION G RESOURCE USE AND ENERGY EFFICIENCY**

**G.1 Give a list of the raw and ancillary materials, substances, preparations, fuels and energy which will be produced by or utilised in the activity.**

The list(s) given should be very comprehensive, all materials used, fuels, intermediates, laboratory chemicals and product should be included.

Particular attention should be paid to materials and product consisting of, or containing, dangerous substances as described in the EU (Classification, Packaging, Labelling and Notification of Dangerous Substances) Regulations 1994 [SI 77/94]. The list must classify these materials in accordance with Article 2 of these Regulations, and must specify the designated Risk Phrases (R-phrases) of each substance in accordance with Schedule 2 of the Regulations.

Tables G.1(i) and G.1(ii) must be completed. Copy as required.

Supporting information should be given in **Attachment No. G.**

See Attachment No. G for tables G.1 (i) and G.1 (ii).

For inspection purposes only.  
Consent of copyright owner required for any other use.



## IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
1001	<b>14HF Fluorescent Ink</b> Petroleum distillate (Aliphatic) (>70%) Iron oxide (<1%) Aerosols contain hydrocarbon propellant (<30%)	647742-47-8 01317-61-9 106-97-8	Harmful Highly flammable	0	0.01	Non-destructive testing	65	23, 24/25, 36/37/39, 62
1005	<b>C28/15</b> Toluene (25-50%) Butanol (10-25%) Acetone (50-100%)	108-88-3 78-83-1 67-64-1	Highly flammable Harmful	0	11.23	Solvent wiping of aircraft	10, 11, 20	16,23,33
1006	<b>Methyl Ethyl Ketone</b> Methyl ethyl ketone	78-93-3	Highly flammable Irritant	0.195	0.27	Cleaning agent.	11, 36/37,66, 67	2, 9, 16, 25, 33
1007	<b>Low Aromatic White spirit</b> Xylene (1%) 1,2,4-trimethyl-benzene (3%) Mesitylene (1%)	1330-20-7 95-63-6 108-67-8	Harmful Flammable Toxic	0	6.37	Solvent cleaning of aircraft parts	10, 20/21, 36/37/38	23, 24, 61, 62
1009	<b>Jet Clean C</b> Sodium nitrite (0.1-1%) Nonyl phenol ethoxylate (9%) moles ethylene oxide (1-5%) 2- butoxyethanol (5-15%)	7630-00-0 9016-45-9 111-76-2	Harmful Toxic	0.162	0.3	Washing of aircraft after paint stripping	8, 22, 25, 36/38, 37, 20/21/22	7, 24
1011	<b>Isopropyl Alcohol</b> Isopropanol (99.8%)	67-63-0	Highly flammable Irritant	0	0.15	Solvent cleaning of aircraft parts	11, 36	7, 16, 26
1012	<b>Phosphoric acid 85%</b>		Corrosive	0	0.07	Cleaning agent	34	26, 45



## IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Phosphoric acid	7664-38-2						
1013	<b>Gramos Booth Spray</b> Sodium hydroxide	1310-73-2	Corrosive	0	0.025	Used as an additive for spray booth water treatment.	35	2, 26, 37/39
1014	<b>Alchrome 1000</b> Chromium trioxide (>0.2 - <1%) Potassium dichromate (0.2 - <1%)	1333-82-0 7778-50-9	Toxic Carcinogen Mutagen	0	0.024	Metal pre-treatment.	46, 49	26, 37/39, 45, 53
1015	<b>Ardrox Leeder 1900B</b> Octylphenol ethoxylate (1-5%) Sodium hydroxide (0.5-2%)	9002-93-1 1310-73-2	Corrosive Harmful	0	15.28	Chemical general purpose aircraft cleaner	22, 35, 36/38, 50	24/25, 26, 36/37/39, 60
1018	<b>Silica gel desiccant</b> Silica gel (100)	7631-86-9	Irritant	0	0.005	Desiccant		
1019	<b>Spotcheck developer</b> Propan-2-ol (50-95%) Acetone (5-25%) Calcium carbonate (<5%) Talc (<5%)	67-63-0 67-64-1 471-34-1 14807-96-6	Highly flammable	0	0.009	To detect surface discontinuities.	11	9, 16, 33, 51
1023	<b>Alochrome 1200 Part A</b> Sodium dichromate (>1-<10%) Fluoroboric acid (>1-<10%)	10588-01-9 -	Carcinogen Sensitiser Mutagen Irritant Toxic	0	0.484	Metal pre-treatment	21, 25, 26, 37/38, 41, 43, 46, 49	26, 36/37/39, 45, 53



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	<b>Part B</b> Potassium dichromate (>0-<0.2%)	7778-50-9	Harmful Toxic to aquatic organisms				21, 25, 26, 37/38, 41, 43, 46, 49	26, 37/39, 45, 53, 57
1024	<b>LPS1</b> Solvent naphtha (Petroleum) (70-90%) 1-methoxy-2-propanol acetate (5-10%) n-propoxypropanol (5-10%) d-limonene (1-5%) Carbon dioxide propellant (aerosol only) (2-3%)	64742-88-7 108-65-6 1569-01-3 5989-27-5 124-38-9	Flammable	0	0.001	Lubricant		
1028	<b>Freezer Aerosol</b> 1,1,1,2-Tetrafluoroethane (>50%) 1,1-Difluoroethane (<50%)	811-97-2 75-37-6		0	0.016	Fast fault finding in electronics	12	2, 3, 16, 23
1029	<b>Amberclens</b> LPG (10-30) Kerosene (1-5%) 1-methoxy-2-propanol (1-5%) Propan-2-ol (1-5%) Ammonia (0-1%)	68476-85-7 93763-34-9 107-98-2 67-63-4 7664-41-7	Extremely flammable	0	0.68	Anti-static foaming general purpose cleaner	23, 34, 50, 65	2, 16, 51
1035	<b>Gramos Aquarite "C" spray booth additive</b> Sodium hydroxide (20-50%) Disodium metasilicate (20-50%) Trisodium phosphate (1-10%)	1310-73-2 6834-92-0 7601-54-9	Corrosive	0	0.3	Spray booth water treatment for paint overspray	35	26, 37/39, 45, 60
1038	<b>Peek Metal Polish</b>		Flammable	0	0.052	General metal polishing	20, 25	2, 25



Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Petroleum derived solvent blend (20-25%)							
1039	<b>SKC-S</b> Petroleum distillate (>70%) Aerosol contain hydrocarbon propellant (<30%)	90622-56-3 106-97-8	Harmful Highly flammable	0	0.021	Emulsifier	11, 12, 63	16, 23, 24/25, 33, 62
1044	<b>Tetrosyl panel wipe</b> Petroleum distillates (60-100%)	265-086-6	Harmful Highly flammable Dangerous for the environment	0	1.22	Surface cleaning of aircraft and parts	11, 51/53, 65	2, 13, 16, 29/56, 46, 51, 61
1047	<b>Ethanol</b> Ethanol	64-17-5	Highly flammable	0	0.041	Cleaning of aircraft parts	11	7, 16
1052	<b>Honey Bee 60</b> Sulfamic acid (8-12%)	5329-14-6	Irritant	0.01	0.3	Cleaning agent	36/38	26, 28, 36/37/39
1063	<b>Sprint Hard Surface Cleaner</b> Tetrasodium EDTA (5-10%) 2-(2-Butoxyethoxy) ethanol (1-5%) Ethoxylated alcohol (1-5%) Alkyl aryl sulphonate (1-5%)	64-02-8 112-34-5 68439-46-3 25155-30-0		0	1	General purpose cleaner	22, 36, 37, 38, 36/38, 36/37/38	
1103	<b>Cadmium LHE SPS 5070</b> Cadmium fluoroborate (10-30%) Ethylenediamine (1-5%)	14486-29-2 107-15-3	Carcinogen Toxic	0.002	0.01	Cadmium electroplating	23/25, 48, 49	45, 53
1104	<b>Chromic convertor</b>		Carcinogen Irritant	0	0.004	Cadmium	36/37/38, 43	26, 28

For inspection purposes only. Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Sodium dichromate, dehydrate (0-1%)	7789-12-0				electroplating		
1119	<b>LPS3</b> Severely refined mineral oil (10-15%) Aliphatic hydrocarbon (70-80%) Dipropylene glycol methyl ether (2-5%)	64742-52-5 64742-88-7 34590-94-8	Flammable Dangerous to the environment Irritant Harmful	0.06	0.52	Rust inhibitor	10, 65, 36/38	
1120	<b>Brush alodine 600</b> Sodium dichromate (>0.2 -<1%)	10588-01-9	Irritant	0.01	0.006	Metal pretreatment		
1124	<b>Honey Bee 60T</b> Sulphamic acid (5-10%)	5329-14-6	Irritant	0	0.01	Cleaning agent.	36/38	26, 28, 36/39
1129	<b>Copper(II) sulphate, anhydrous</b>	7758-98-7	Harmful Irritant, Toxic to aquatic organisms	0	0.65		22, 36/38, 50/53	22, 60, 61
1130	<b>Wadis 24</b> Aliphatic hydrocarbons Greases Mineral oils Oxygenous solvent			0.008	0.02	Water proofing and anti corrosive treatment	10	3/7/9, 16, 26
1138	<b>White spirit</b> (Naphtha, petroleum)	64742-82-1	Irritant Harmful	0	0.244	Cleaning agent	10, 51/53, 65	23, 43, 61, 62
1141	<b>Super Bee 210</b> Nonidet Le (2-10%) Surfac SX 93 (2-10%) Wetting agent-14 (2-10%)	68438-45-2 1300-72-7 -	Irritant	0	2.6	Cleaning agent	36/38, 22, 41, 36/37/38, 20/22	

Consent of copy for information purposes only. No other use permitted without written consent required for any other use.

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Propylene glycol N-butyl ether (2-10%)	5131-66-8						
1145	<b>CN13 solvent</b>		Harmful Highly Flammable	0.0018	0.11	Cleaning agent	65	
	Naphtha (50-100)	064741-84-0						
1151	<b>Avia wash</b>		Not hazardous	0	0.089	Detergent		
	Detergent Sodium metasilicate	- 6834-92-0						
2004	<b>Turco 9090</b>		Harmful	0	0.163	Aircraft coating remover	20/22, 35, 21/22	23, 36/37, 26
	Benzyl alcohol (30-100%) Formic acid (5-15%) Oxalic acid (1-5%)	100-51-6 64-18-6 144-62-7						
2005	<b>Turco 6776 LO</b>		Irritant	1.3	14.8	Aircraft coating remover	35, 20/22	23, 26, 28, 36/37/39
	Benzyl alcohol (15-30%) Combustible aromatic hydrocarbons (>25%) Formic acid (5-15%)	100-51-6 64742-94-5 64-18-6						
2014	<b>Cee-Bee E-2012A</b>		Harmful	0	0.507	Aircraft coating remover	20/22, 52/53	23, 60, 61
	Benzyl alcohol (30-50%) Sodium silicate (1-5%) Anisole 5-15%) Solvent Naphtha heavy aromatic (1-5%)	100-51-6 1344-09-8 100-66-3 64742-94-5						
2015	<b>SPC 909 Stripper (Sea to Sky)</b>			0	0.049	Aircraft coating remover	20/22 36/38	
	Aromatic alcohol (20-40%) Dihydrogen dioxide (4-7%)	100-51-6 7722-84-1						

Consent of copyright owner required for any other use.  
For inspection purposes only.



## IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Corrosion inhibitor blend (0.1-5%) Water (30-50%)	- 7732-18-5						
3003	<b>PR-1422A 1/2 ACCEL</b>  Calcium bichromate N,n-dimethyl-acetamide	14307-33-5 127-19-5	Carcinogen (Cat. ½) Toxic	0	0.0558	Sealant	45, 34, 36, 36/37/38, 20/21	36/37
3004	<b>PR-1422 A2 BASE</b>  Phenol (0 -1%) Butan-2-one (2.5-10%) Toluene (2.5 -10%) Liquid polysulphide polymer (50-100%)	108-95-2 78-93-3 108-88-3 68611-50-7	Flammable carcinogen (Cat. 3)	0	0.054	Sealant	23/24/25, 34, 40, 20, 24/25, 36/37	16, 33
3005	<b>PR 1422 B ½</b>  N,N-dimethylacetamide (10-25%) Calcium dichromate (10-25%) Chromium(VI) compounds (2.5-10%) Magnesium dichromate (2.5-10%)	127-19-5 14307-33-6 7440-47-6 14104-85-9	Carcinogen (Cat ½) Toxic	0.005	0.485	Sealant	45, 36/37/ 49, 43, 50/53, 20/21, 36	36/37, 53
3006	<b>PR1422B2ACC</b>  Calcium dichromate (10-25%) N,N-dimethylacetamide (25- 50%)	14307-33-6 127-19-5	Carcinogen ( Cat. ½) Toxic	0	0.298	Sealant	45, 34, 36, 20/21 20, 36/37	36/37
3007	<b>PR - 1431G Type 2 ACC</b>  Calcium dichromate (50-100%)  <b>PR-1431 G Type 2 base</b>	14307-33-6	Carcinogen (Cat. ½) Toxic	0	0.0386	Sealant	36/37, 20, 45, 36/37/38, 52/53	16, 33, 53



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Magnesium chromate (2.5-10%) Toluene (2.5-10%) Methanol (0 - 2.5%)	13423-61-5 108-88-3 67-56-1						
3008	<b>PR - 1436 GA ½</b>  Chromium (VI) compounds (10-25%) N, N-dimethyl-acteamide (10-25%) Calcium dichromate (25-50%)	7440-47-6 127-19-5 4307-33-6	Carcinogen (Cat. ½) Toxic	0	0.0301	Sealant	20/21, 36 43, 49, 50/53 23/24/25, 34, 40, 43, 24/25, 45, 22, 20/21, 20, 36/37	53, 36/37  16, 33, 24, 45, 53
3009	<b>PR - 1436G A-2 Accel</b>  Calcium bichromate (25-50%) N, N dimethyl-acetamide (25-50%) Octylphenoxypolyethoxy-ethanol (0-<2.5%)	14307-33-6 127-19-5 9036-19-5	Carcinogen (Cat. ½) Toxic	0	0.0325	Sealant	45, 36/37 38, 20/21, 36	53, 36
3010	<b>PR 1436 GB ½ ACC</b>  Chromium (VI) compounds (10-25%) Magnesium dichromate (10-25%) Calcium dichromate (10-25%) N, N-dimethyl-acetamide (25-50%)	7440-47-6 14104-85-9 14307-33-6 127-19-5	Carcinogen (Cat ½) Toxic  Carcinogen (Cat. 1/2/3)	0.006	0.974	Sealant	43, 49, 50/53, 20/21, 36	36/37
3011	<b>PR 1436G Class B2</b>  Calcium bichromate (25-50%)	14307-33-6	Carcinogen (Cat ½) Toxic	0	0.392	Sealant	R20/21, 34, 45	S26, 28, 45, 53, 36/37/39

For inspection purposes only.  
Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	N, N-dimethyl-acetamide (25-50%)	127-19-5						
3012	PR-1440 ½ Acc Manganese dioxide (50-100%)	1313-13-19	Harmful	0	0.005	Sealant	20/22	
3013	PR-1440A Toluene Butan-2-one	108-88-3 78-93-3	Flammable	0	0.0017	Sealant	20, 36/37	16, 33
3014	PR - 1440 1/2 Base Liquid polysulphide polymer (50-100%)	068611-50-7	Flammable	0	0.019	Sealant	20, 36/37	
3015	PR1440-B1/2 Hydrogenated Terphenyl Carbon black Manganese dioxide Diphenyl guanidine	61788-32-7 1333-86-4 1313-13-9 102-06-7	Harmful	0	0.015	Sealant	20/22	
3017	RTV 106 Silicone sealant red Methyltriacetoxysilane (1-5%)	4253-34-3	Harmful	0	0.0237	Sealant		
3018	RTV 3145 grey adhesive sealant Alkoxysilane (7%)	-		0	0.0178	Sealant		24/25, 51
3019	RTV60		Irritant	0	0.0126	Sealant		

For inspection purposes only.  
Consent of copyright owner required for any other use.

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Ethyl silicate 40 (1-5%)	11099-06-2						
3020	<b>Dow Corning RTV 732 multi purpose sealant</b>  Methyltriacetoxysilane (2%) Silica, amorphous (9%) Ethyltriacetoxysilane (3%)	 4253-34-3 7631-86-9 17689-77-9	Irritant	0	0.0716	Sealant	36, 38	2, 28, 51
3021	<b>RTV 732 multi purpose sealant, white</b>  Silica, amorphous (11%) Acetoxysilane (4%)	 7631-86-9 -		0	0.0289	Sealant	36, 38	2, 28, 51
3022	<b>Scotch Seal EC-1252</b>  Potassium aluminosilicate Methyl Ethyl Ketone Limestone Titanium dioxide Acrylonitrile-butadiene polymer Antimony Trioxide P-Tert-Butylphenol-formaldehyde resin Ammonia, O Cresol, Formaldehyde Phenol polymer Chloroalkanes Isopropyl alcohol Salicylic acid	 1327-44-2 78-93-3 1317-65-3 13463-67-7 9003-18-3 1309-64-4 25085-50-1 55185-45-0  61788-76-9 67-63-0 69-72-7	Carcinogen (Cat. 2) Flammable Irritant	0	0.0044	Sealant	11, 20/21/22, 36, 45	S15, 16,36,51 24/25,26, 28
3023	<b>PR1005 LBS Fuel Resistant Topcoat</b>  Propan-2-ol (10-25%) Butan-2-one (50-100%)	 67-63-0 78-93-3	Flammable Irritating	0	0.0206	Sealant	36/37	16, 33
3024	<b>RTV 108, Clear</b>		Harmful	0	0.0218	Sealant		





IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Rare earth octoate salts (<1%) Vinyltriethoxy-silane (<1%) Octamethylcyclo-tetrasiloxane (<1%) Dimethyl methylvinylsilox-ane (60-80%) Tetramer treated fumed silica (10-30%) Silanol (<1) Polytetrafluoroethylene (<1) Silica gel (5-10) Siloxanes & silicones (<1)	61788-37-2 78-08-0 556-67-2 68083-18-1 68583-49-3 70131-67-8 9002-84-0 7631-86-9 68951-97-3						
3025	<b>RTV 102, white</b>		Irritant	0	0.0195	Sealant		
3026	<b>Poly siloxane compound RTV 159 red</b> Methyltriacetoxysilane (1-5%)	4253-34-3	Irritant	0	0.018	Sealant	14, 34	
3027	<b>Dow Corning 3110 RTV</b> Quartz (Crystalline silica) Tetrapropyl orthosilicate	14808-60-7 682-01-9	Carcinogen	0	0.00127	Sealant	48/20, 40, 36/38	25
3028	<b>RTV88</b> Ethyl silicate 40	11099-06-2	Harmful. Irritant.	0	0.0168	Sealant	-	-
3035	<b>PR812-PT/A</b> Butanone Methyl Isobutyl Ketone Epichlorohydrin/ Bisphenol A resin Carbon black Talc	78-93-3 108-10-1 25036-25-3 1333-86-4 14807-96-6	Flammable Irritant	0	0.00085	Sealant	36/37, 36/ 38,43	9,16,24,37,5 1

Consent of copyright owner required for any other use.  
For inspection purposes only.



## IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
3037	Scotchall Brand Edge Sealer 3950  Xylene Modified acrylic resin Ethylbenzene	1330-20-7 Unknown 100-41-4	Flammable Harmful	0	0.00867	Sealant	11, 20/21,38	-
3038	DAPCO 1-100 Primer  Distillates (Petroleum), Butanone Tetraethyl silicate	78-10-4 64742-47-8 78-93-3	Highly Flammable Harmful	0	0.00034	Sealant	11, 36/37, 65	9,26,51, 24/25, 60,62
3039	RTV 157 grey  Methyltriacetoxysilane (1-5%)	4253-34-3	Irritant	0	0.01556	Sealant	-	-
3040	PR-1425 B1/2 Base  Butan-2-one Liquid polysulphide polymer	78-93-3 68611-50-7	Carcinogen (Cat. ½)	0	0.0141	Sealant	45,36/37/ 38,20/21, 36 36/37,52/ 53	36/37, 53
3042	Dow Corning 93-006-1 Catalyst  Diatomaceous earth, Flux calcined (~31%) Titanium dioxide (~2%) Dibutyltin diacetate (2%)	68855-54-9 13463-67-7 1067-33-0	Carcinogen (Cat.3)	0	0.0372	Sealant	48/20, 40, 23/24/25, 34 48/20, 40	24/25, 29  24/25
3043	RTV 162  Methyltrimethoxy-silane (1-5%)	1185-55-3	Irritant	0	0.00043	Sealant	-	-
3044	PR1826B1/4		Harmful Toxic	0	0.0034	Sealant	20/22, 36/ 38, 23/25,	



## IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	1,4-diazabicyclo (2,2,2) octane (0-1%) Methanol (1-10%) Butanone (1-10%)	280-57-9 67-56-1 78-93-3	Irritant				36/37 23/25, 36/ 38, 43	24,37
3045	<b>Proseal 860 B1/6 Base</b>  Cresol (0-1%) Formaldehyde (0-1%) Phenol (0-1%) Toluene (2.5-10%) Liquid polysulphide polymer (50-100%)	  1319-77-3 50-00-0 108-95-2 108-88-3 68611-50-7	Harmful	0	0.01225	Sealant	20/22	-
3052	<b>Dow Corning 732 Multi Purpose Sealant</b>  Acetoxysilane (5%) Silica (10%) Carbon Black (0.10%)	  - 7631-86-9 1333-86-4	Irritant	0	0.006	Sealant	34,36,38	2, 28,51
3053	<b>RTV560</b>  Ethyl silicate (1-5%)	  11099-06-2	Irritant	0	0.002	Sealant	-	-
3056	<b>C-5A Antiseize</b>  Graphite (20%) Hydrotreated petroleum distillates (25%) Copper (25%) Petroleum distillate (15%) Silicon dioxide (55)	  7782-42-5 64742-52-5 7440-50-8 64742-18-3 14808-60-7	Harmful Irritant	0	0.0009	Sealant	-	46, 2
3059	<b>PR-1431 G Type IV</b>  Chromium (VI) compounds (10-25%)	  7440-47-6	Carcinogen (Cat. ½)	0	0.005	Sealant	45,34	-

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Calcium dichromate (25-50%)	14307-33-6						
3063	<b>Never-seez Nuclear grade/ Nickel special</b>  Nickel powder (10-30%) Aluminium Flake (1-5%)	7440-02-0 7429-90-5	Carcinogen Harmful	0	0.002	Sealant	40,43,10, 15	36/37, 22
3067	<b>Proseal 870 B ½ base PS-870 class B1/2BS</b>  Toluene (2.5-10%) Liquid polysulphide polymer (25-50%)	108-88-3 68611-50-7	Carcinogen Toxic	0	0.067	Sealant	20/22,45, 36/37/38	53
3068	<b>PS 870 C-48 Accelerator</b>  Hydrogenated Terphenyl (35%) Talc (<5%) Manganese Dioxide (40%) Magnesium chromate (25%) Diphenyl guanidine , N,N, Diphenyl (<5%)  <b>Base</b> Titanium dioxide (10%) Calcium Carbonate (10%) Toluene (10%)	061788-32-7 014807-96-6 001313-13-9 13423-61-5 102-06-7  13463-67-7 1317-65-3 108-88-3	Carcinogen Toxic	0	0.01	Sealant	36/37/38	
3073	<b>RTV 1200</b>  Octamethyltrisiloxane (<85%) Organosilicate (5%) Tetrabutoxy Titanate (5%) Tetrakisortho-silicate (5%)	107-51-7 5593-70-4 18765-38-3 8032-32-4	Flammable Toxic	0	0.0067	Sealant	36/38,20, 38,41,20/ 21, 60,61, 20/21/ 22	16,29,37/39, 51,53

Consent of copyright owner required for any other use.  
For inspection purposes only.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
3079	<b>E43 Silicone</b> Dimethylpolysiloxane Fillers AuxilariesAcetoxysilane cross-linker	64-19-7 - -	None	0	0.00578	Sealant	-	-
3110	<b>PR 1428 B2 Base</b> Liquid polysulphide polymer (50-100%) <b>PR 1428 Accelerator</b> Manganese dioxide (50-100%)	68611-50-7  1313-13-9	Harmful	0	0.28	Sealant	52/53  20/22	-
3125	<b>PR1828B Accelerator</b> Methanol (0-1%) 3-glycidyoxy-propyl-rimethoxy-silane (2.5-10%) Epoxy resin (50-100%) <b>PR 1828 B2 Base</b> 1,4-diazabicyclo (2,2,2) octane (0-1%) Methanol (0-1%) Butan-2-one (1-10%)	67-56-1 2530-83-0  25068-38-6  280-57-9 67-56-1 78-93-3	Irritant	0	0.00459	Sealant	23/25, 36/ 38,43	24, 37
3127	<b>Rhodorsil RTV 147A</b> Platinum Polymethylvinyl-siloxanes Silica	7440-06-4 - -	None	0	0.002	Sealant	-	-
3128	<b>RTV730-D1</b>	-	None	0	0.0019	Sealant	-	-
3130	<b>Silcoset 152</b>		-	0	0.00115	Sealant		41

For inspection purposes only.  
Consent of copyright owner required for any other use.

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Acetoxysilanes (<5%)	-						
3134	<b>Mastinox D40 Jaune</b> Barium chromate (10-25)	10294-40-3	Harmful	0	0.00199	Sealant	20/22	23,51
3135	<b>Dinitrol AV 25 Spray</b> Naphtha heavy (50-65%) Butyl Glycol (1-5%) Polyolefins (20-35%) Lanolin (1-5%) Plasticizer (1-5%) Inhibitors (1-5%) Waxes (1-5%) Light paraffinic oil (1-5%)	64742-48-9 111-76-2 8006-54-0 - - - - 64741-89-5	Flammable	0	0.804	Sealant	65 37,20/21/ 22	23,24,38,9
3136	<b>PR 1403 GA 2 NA Part A Base</b> Strontium chromate (<5%) Butanone (<5%) Toluene (<5%) <b>Part B Accelerator</b> N,N-dimethyl-acetamide (25-30%) Calcium dichromate	7789-06-2 78-93-3 108-88-3 127-19-5 14307-33-5	Highly flammable Toxic Carcinogen Toxic	0	0.0276	Sealant	45, 22	45,53,29
3137	<b>PR 1403 GB2 NA Part A (Base)</b> Magnesium chromate Toluol <b>Part B Accelerator</b> N,N-dimethyl-acetamide (25-30%)	13423-61-5 108-88-3 127-19-5	Toxic Carcinogen (Cat.2)	0	0.000863	Sealant	10,45,22	7/9, 16,45,53, 24/25

Consent of copyright holder required for any other use.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Calcium dichrom-ate (20-25%)	14307-33-5						
3138	<b>P15-3</b> Unsaturated polester resin blend Styrene Monomer Titanium dioxide Silica, amorphous hydrated Magnesium silicate Sodium borosilicate microspheres Antimony oxide	- 100-42-5 13463-67-7 7631869 14807-96-6 65997-17-3 1309-64-4	Carcinogen	0	0.1433	Sealant	-	-
3139	<b>#14 Ultra Filler</b> Unsaturated polyester Blend (<43%) Styrene monomer (<15%) Magnesium silicate (<40%) Barium sulfate (<10%) Titanium dioxide (>4%) Borosilicate glass (<1)	25037-66-5 100-42-5 14807-96-6 7727-43-7 13463-67-7 65997-17-3	Carcinogen	0.003	0.0608	Sealant	-	-
3144	<b>Primer/Appret 5014 white/Blanc</b> Methoxypropylacetat (5-10%) N-Butyl acetate (5-10%) Xylene. Mixture of isomers	108-65-6 123086-4 1330-20-7	-	0	0.023	Sealant	10 10 10-20, 21-38	-
3146	<b>P/S 870 Class A Corrosion Inhibitive Sealant</b>	-	-	0	0.000479	Sealant	-	-
3148	<b>PR7422BS</b> Butanone (1-2.5%) Liquid polysulphide polymer (50-100%) Phenol (0-1%)	78-93-3 68611-50-7 108-95-2	Highly Flammable	0	0.00038	Sealant	36,66,67 52/53 24/25, 34 20	-

Consent of copyright owner required for any other use.  
For inspection purposes only.



Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Toluene (2.5-10%)	108-88-3						
3149	<b>PR1773 A2</b>	-	-	0	0.013	Sealant	-	-
4001	<b>Araldite AW 106</b> Epichlorhydrin-bisphenol A resin (70-82%) Bisphenol F-epoxy resin (4-10%)	25068-38-6 9003-36-5	Irritant	0	0.009	Adhesive	36,38,43, 51/53	28, 37/39
4002	<b>Araldite LY 5052</b> Butanedioldiglycidyl ether (34-42%) Epoxy phenol novolak resin (60-72%)	2425-79-8 28064-14-4	Harmful	0	0.028	Adhesive	20/21, 36/38, 43, 52/53	26,28,37/39
4004	<b>3M Scotchgrip</b> Aliphatic petroleum distillate (30-40%) Acetone (20-30) Synthetic rubber (10-20%) Toluene (<12.5) Phenolic resin (1-10) Magnesium oxide (1-5) N-hexane (<0.8)	- 67-64-1 - 108-88-3 - 1309-48-4 110-54-3	Highly Flammable Irritant	0	0.254	Adhesive	11-38-48 20-51/53-62- 65-67	15,16,33,7,2 8,51, 38,26
4007	<b>Molykote G-N plus paste</b>		-	0	0.00025	Adhesive	-	-
4009	<b>Scotchgrip (TM) Industrial adhesive</b> Petroleum distillate (40-45%) Methyl Ethyl Ketone (20-25%) Neoprene rubber (10-15%) Phenol- Formaldehyde resin (10-15%) Toluene (3-7%) Magnesium oxide (2-5%)	- 78-93-3 - - 108-88-3 1309-48-4	Irritant Flammable		0.00479	Adhesive	11,36/37,2,48	15,16,7/9,3, 51,26, 28,62

For inspection purposes only.  
Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Fillers (0.1-1%) N-hexane (<1%) Zinc oxide (0.1-1%) Antioxidant (0.1-1%)	- 110-54-3 1314-13-2 -						
4011	<b>Araldite 420 A</b>  Bisphenol A-(epichlorhydrin) epoxy resin (85-95%)	25068-38-6	Irritant Corrosive	0	0.014	Adhesive	36/38,43, 51/53	28,37/39
4014	<b>Araldite 252 Resin</b>  Bisphenol A-(epichlorhydrin) epoxy resin (48-60%) Antimony Trioxide (2-8%)	25068-38-6 1309-64-4	Carcinogen Harmful	0	0.1358	Adhesive	36/38,43, 40	28, 37/39
4016	<b>Hardener HV 953 U</b>  N-1, 3-propylene-diamine (4-10%)	10563-29-8	Irritant	0	0.009	Adhesive	36/38,43	26,28
4018	<b>Hardener HY 5052</b>  2,2-dimthyl-4,4 methylenebis (50-60%) Isophorone diamine (35-45%) 2,4,6-tris(dimethylamino-methyl) phenol (1-5%)	6864-37-5 2855-13-2 90-72-2	Toxic Corrosive	0	0.285	Adhesive	22,23/24, 35,51/53, 21/22,34,43,36 /38	26,28,36/37, 39,45
4019	<b>Loctite 648</b>  Dimethylacrylate urethane diol adduct (70%) Polyethyleneglycol dimethacrylate (8%) Acrylic acid (8.5%) Organic peroxide (2%) Substituted hydrazine (1%) Stabilisers & dyes (0.1)	- 97-90-5 79-10-7 - - -	Irritant	0	0.01	Adhesive	10,34,7,20,22, 23/24/25,33,36 / 38,43	26,28



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
4020	<b>Loctite 401</b> Ethyl cyanoacrylate (65-95%)	7085-85-0	-	0	0.55	Adhesive	-	-
4021	<b>Bostik7132-Kit/A</b> Butanone (30-60%) Tetrahydrofuran (10-30%) Toluene (10-30%) Epoxy resin (1-5%)  <b>BOSTIK 7132- Kit/B</b> Toluene (30-60) Diphenylmethanedi-isocyanate (10-30%) Diphenyl methane-4,4-di-isocyanate (10-30%) Diphenylmethane-2,2-di-isocyanate (1-5%)	78-93-3 109-99-9 108-88-3 25068-38-6  108-88-3 9016-87-9 101-68-8 2536-05-2	Highly flammable Harmful	0	0.001	Adhesive	36,66,67 36/37 20 36/38, 43	26,37, 24/25,60
4022	<b>EC847L-QT</b> Acetone (30-60) Toluene (10-30%) Butanone (10-30%) Acrylonitrile- butadiene polymer (10-30%) Phenol-Formaldehyde polymer (1-5%) Glycerol esters os rosin acids (1-5%) Salicylic acid (1-5%) Zinc oxide (1-5%) Alkylated diphenylamines (0-1%)	67-64-1 108-88-3 78-93-3 9003-18-3 9003-35-4 8050-31-5 69-72-7 1314-13-2 68411-46-1	Highly flammable Harmful	0	0.0077	Adhesive	11,20,36, 66	9,16,25, 26,51,60
4025	<b>Wue Spray adhesive</b> Naphtha hydrotreated light (30-50%) Dimethyl ether (30-50%)	64742-49-0 115-10-6	Flammable	0	0.076	Adhesive	11	-

For inspection purposes only.  
Consent of copyright owner required for any other use.

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
4027	<b>Araldite 2012</b> Bisphenol A epoxy resin (79-91%) 1,4 Butanedioldi-glycidylether (3-9%) N-1,3-prpylenediamine (1-6%)	25068-38-6 2425-79-8 10563-29-8	Irritant	0	0.0077	Adhesive	36/38,43, 20/21	24/25
4029	<b>Epocast 1511B</b> Triethylenetetramine (3-9%)  <b>Epocast 1511A</b> Bisphenol A- (Epichlorhydrin) epoxy resin (70-82%)	112-24-3  25068-38-6	Irritant	0	0.0009	Adhesive	36/38,43, 51/53 34,21,43	28,37/39 24/25,37
4030	<b>Scotchgrip 1099</b> Acetone (60-70%) Acrylonitrile (10-20%) Phenol formaldehyde resin (10-20%) Zinc oxide (1-5%) Salicylic acid (1-5%) Alkylated diphenylamine (0.1-0.5%)	67-64-1 - 8050-31-5 1314-13-2 69-72-7 68411-46-1	Flammable	0	0.00288	Adhesive	11	15,16,7/9,3, 24/25,28,26, 2
4035	<b>Dow Corning 93-076-2 Catalyst</b> Dibutyltin dilaurate (10%) Calcium carbonate (32%)	77-58-7 1317-65-3	Corrosive Harmful	0	0.00045	Adhesive	23/24/25, 34	23V, 24/25, 3, 51
4039	<b>Hardener HY 951</b> Triethylenetetramine (>99%)	112-24-3	Corrosive	0	0.006	Adhesive	34,21,43	26,36/37/39, 45
4040	<b>MY750</b> Bisphenol A-epoxy resin (>90%)	25068-38-6	Irritant Harmful to environment Sensitiser.	0	0.002	Adhesive	36/38,43, 51/53	28, 37/39, 61

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
4041	<b>Hysol EA 9396</b> Polyfunctional epoxy resin (30-60%) Bisphenol A/epichlorohydrin epoxy resin (30-60%) Aliphatic amine (5-10%)	- - -	Corrosive	0	0.034	Adhesive	36/38 34,41,43	28, 37/39, 24,25
4047	<b>Epocast 50A</b> Bisphenol A-(Epichlorohydrin) epoxy resin Tricresyl phosphate	25068-38-6 1330-78-5	Irritant Corrosive	0	0.0798	Adhesive	36/38,43, 51/53, 39/23/24/25	28,37/39
4051	<b>Araldite LY 564</b> Butanedioldiglycidylether (14-22) Bisphenol A- epichlorohydrin (78-86)	2425-79-8 25068-38-6	Irritant	0	0.045	Adhesive	20/21,36/ 38,43,52/ 53	28, 37/39
4052	<b>Loctite 222</b> Polyglycol dimethacrylate (45-50%) Polyglycol oleate (35-40%) Saccharin (3-5%) Silica (3-5%) Cumene hydroperoxide (1-3%) Propylene glycol (1-3%) N,n dialkyltoluidines (0.1-1%) Titanium dioxide (0.1-1%)	25852-47-5 9004-96-0 81-07-2 68909-20-6 80-15-9 57-55-6 613-48-9 13463-67-7	Irritant	0	0.007	Adhesive	-	-
4053	<b>Loctite 242</b> Polyethyleneglycol dimethacrylate (95%) Polymeric thickeners & plasticisers (67%) Organic peroxide (4%) Diethyl & dimethyl toluidine (0.7%)	- - - -	-	0	0.003	Adhesive	7,20/22,34 23/24/25, 33	-

For inspection purposes only. Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Inorganic pigments (1.5%) Saccharin (5%) Ethyleneglycol (2%)	- - -						
4054	<b>Loctite 270</b>  Polyethyleneglycol dimethacrylate (70%) Polymeric thickener (30%) Saccharin (4%) Organic peroxide (3.2%) Diethyl & Dimethyl toluidine (1.2%)	- - - - -	-	0	0.003	Adhesive	7,20/22,34 23/24/25, 33	-
4055	<b>Loctite 290</b>  Diethyltoluidine (0.1-0.9%) Dimethyl-o-toluidine (0.1-0.3%) Saccharin (1-3%) Polyethyleneglycol dimethacrylate (75-95%) Organic peroxide (2-4%)	- - - - -	-	0	0.005	Adhesive	20/22,34, 23/24/25, 33	-
4072	<b>Loctite 932</b>  Cumene Hydroperoxide 80% (1-3%) N,N-Diethyl-p-Toluidine (0.1-0.8%) N,N-dimethyl-O-toluidine (0.1-0.5%)	80-159 613-48-9 609-72-3	Harmful Irritant Sensitiser	0	0.004	Adhesive	7,21/22, 23,34 48/20/22, 51/53 23/24/25, 33 23/24/25, 33,52/53	
4075	<b>Scotch weld 3549</b>  Polyester resin (40-60%) Polypropylene glycol (10-30%) Talc (10-30%) Polyoxypropylene triol (3-7%)	- 25322-69-4 14807-96-6 25723-16-4	Harmful	0	0.000907	Adhesive	20,36/37/ 38,42	23,51,24,26, 28,45

Consent of copyright owner required for any other use.  
For inspection purposes only.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Zeolite (1-5%) O-diethylbi-saniline (1-5%) Beta- Ethyltri-methoxysilane (<1%)	68989-22-0 13680-35-8 3388-04-3						
4079	<b>Stabond T 150D</b>  Carbon black (0.56%) Methyl Ethyl Ketone (27%) Toluene (13%) Hexane (40%)	1333-86-4 78-93-3 108-88-3 110-54-3	Flammable Carcinogen	0	0.0915	Adhesive	49	
4107	<b>3M Solvent no. 1</b>  Toluene (50-60%) Heptane (40-50%)	108-88-3 142-82-5	Flammable Harmful	0.009	0.547	Adhesive	11,20	7,15,16, 23,25,26,28, 62
4119	<b>Scotch weld Adhesive 1838 A</b>  Polyamidoamine (70-80%) Kaolin (10-15%) Triethylenetetramine (<10%) Tetraethylene-pentamine (<10%) Amorphous silica (1-5%) Chromic oxide (<1%)	- 1332-58-7 112-24-3 112-57-2 7631-86-9 -	Irritant	0	0.001	Adhesive	36,38,43	25,24,26,28, 37/39
4122	<b>1204 RTV Prime Coat</b>  VM & P Naphtha (~65%) Toluene (20%) Butanol (<5%) Tetra-silane (<5%) Tetrabutyl Titanate (<5%) 2-methoxyethanol (2-4%)	80325-32-4 108-88-3 71-36-3 2157-45-1 5593-70-4 109-86-4	Highly Flammable Toxic	0	0.00095	Adhesive	11,60,61, 20/21/22	16,29,37/39, 51,53

For inspection purposes only. Consent of copyright owner required for any other use.



Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
4133	<b>3M Fastbond 30</b> Glycerol ester of hydrogenated rosin (5-10%) Rosin (0.5-1.0%) Synthetic rubber (60-70%) Hydrocarbon resin (5-10%) Water (40-50%) Toluene (1-5%) Ethyl alcohol (1-5%) Triethanolamine (0.1-0.5%)	- 8050-09-7 9010-99-4 68648-57-7 7732-78-5 108-88-3 64-17-5 102-71-6	None	0	0.006	Adhesive	36,37	25,26,51,28, 46,62,23
4141	<b>Scotchweld low density filler 3524 B/A Kit Part A</b> Aliphatic polymer diamine (50-55%) Glass bubbles (20-25%) Chlorinated hydrocarbon (10-15%) 2,4,6-trisphenol (5-10%) Triphenyl phosphite (1-5%)  <b>Part B</b> Epoxy resin Brominated epoxy resin Glass bubbles Antimony trioxide	68911-25-1 65997-17-3 13560-89-9 90-72-2 101-02-0  25068-38-6 31452-80-9 65997-17-3 1309-64-4	Carcinogen Irritant	0	0.024	Adhesive	22,36/38, 43,40	24/25,37/39, 51,22,26,28
4157	<b>Araldite AV 121 N</b> Bisphenol A epoxy resin (24-36%) Dibutyl phthalate (3-9%)	25068-38-6 84-74-2	Irritant	0	0.004	Adhesive	36/38,43, 51/53,62, 63	28,37/39
4158	<b>Loctite 243</b> Polyethyleneglycol dimethacrylate (65%)	-	-	0	0.002	Adhesive	7,20/22,34 23/24/25, 33	-

For inspection purposes only. Copying of copyright owner required for any other use.

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Polyethyleneglycol di-aliphatic ester (25%) Thickening agents & Fillers (10%) Thixotropic agents (5%) Organic peroxide (1%) Other minor constituents (3%) Substituted hydrazine (0.2%)	- - - - - -						
4159	<b>Hardener Hy 991</b>  Triethylenetetramine (1-7%)	  112-24-3	Irritant	0	0.001	Adhesive	21,34,43	24/25
4160	<b>Araldite AV 138M</b>  Bisphenol A epoxy resin (30-42) 1, 4-Butanedioldi-glycidylether (1-5%)	  25068-38-6 2425-79-8	Irritant	0	0.003	Adhesive	36/38,43, 20/21, 36/38	28,37
4161	<b>Hardener HV998</b>  N-1,3-propylenediamine (5-10%) Diethylenetriamine (1-6%)	  10563-29-8 111-40-0	Irritant	0	0.003	Adhesive	34,43,21/ 22	26,28
4163	<b>Pactan 7060</b>  Tetraethyl ortho-silicate (2.5-10%)	  78-10-4	-	0	0.010	Adhesive	10,20, 36/37	-
4165	<b>Epoxy Resin AF300</b>  Reactive products of epichlorohydrin & bisphenol A (65-75%) Amorphous fumed silica (1-5%) Ammonium polyphosphate (20-30%)	  25085-99-3 112945-52-5 68333-79-9	-	0	0.002	Adhesive	-	-
4166	<b>Alexit FST Fueller 495-14</b>		Harmful	0	0.002	Adhesive	20, 36/37/	23,1,38

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Diphenylmethane-4,4 diisocyanate (1-5%)	-					38,42	
4168	<b>Tri-Flow</b> Heavy aliphatic solvent (30%) Naphthenic oil (23%) Heavy naphthenic petroleum oil (2%) Highly refined naphthenic oil (4%) Heavy mineral oil (23%) Distillates (4%) 2-Methoxy-methylethoxy propanol (%3) Amyl acetate (3%)	64702-96-7 64742-63-8 64742-52-5 64742-53-6 64741-96-4 64742-65-0 34590-94-8 628-63-7	Flammable	0	0.007	Adhesive	10	2,16,26, 28
4170	<b>EA9394/A</b> Aluminium powder (30-60%) Bisphenol A Epichlorohydrin epoxy resin weight (10-30%) Epoxy resin (30-60%) Silica (1-5%)	7429-90-5 - - 112-57-2	Irritant	0	0.0047	Adhesive	36/38,43	26,37, 24/25
4172	<b>Devcon F Resin</b> Bisphenol A <b>Hardener</b> Triethylenetetramine (<35%) N-aminoethyl-piperazine (<7%) Nonylphenol (<7%)	- - 112-24-3 140-31-8 25154-52-3	Irritant	0	0.015	Adhesive	36/38,43	28, 37/39
4173	<b>Araldite 2013</b> Bisphenol A epoxy resin (41-53%)	25068-38-6	Irritant	0	0.0009	Adhesive	36/38,43	24/25

Consent of copyright owner required for any other use.  
For inspection purposes only.

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Diethylenetriamine (3-9%)	111-40-0						
4174	<b>EA960F/A</b> Epoxy resin (30-60%) Epoxy novolac resin (10-30%) Talc (10-30%)	25068-38-6 28064-14-4 14807-96-6	Harmful Dangerous for environment Corrosive	0	0.0036	Adhesive	20,36/38,	26,38,34/25
4176	<b>Loctite 415</b> Methylcyanoacrylate (90%) Polyalkylmethacrylate (15%) Stabilisers & cross-linking agents (1%)	- - -	-	0	0.00026	Adhesive	-	-
4177	<b>N-58479/T508 &amp; Hardener N59029</b> Styrene	100-42-5	Harmful	0	0.002	Adhesive	10,20,36/ 38	51,26,23,38
4198	<b>Adhesive 461102720</b>	-	Very Flammable	0	0.039	Adhesive	-	-
4206	<b>Epocast 1638A</b> Glycidyl ether (10-30) Bisphenol A diglycidyl ether resin (30-60) Glass, oxide, chemicals (10-30%) Siloxanes & silicones (0-10%) Ammonium polyphosphate (10-30%) 1,2-Benzenedi-carboxylic acid, dibutyl ester (0-10%) Melamine formaldehyde polymer (0-10%)	- - 65997-17-3 67762-90-7 68333-79-9 84-72-2 9003-08-1	-	0.01	0.057	Adhesive	-	-
5001	<b>Aerodur Tinter C 21/100 UVR</b>		Irritant Flammable	0	0.84	Paint	10,36,20	16,23,38,39

For inspection purposes only.  
Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Cyclohexanone (2.5-10%) N-butyl acetate (2.5-10%) 2-Methoxy-1-methylethyl acetate (10-25%)	108-94-1 123-86-4 108-65-6						
5  RE Eng Sat 18 12 002	<b>Aviox Finish</b>  N-butyl acetate (10-25%) Polyester polyol (2.5-10%) Cyclohexanone (2.5-10%) Xylene (1-2.5%)	  123-86-4 - 108-94-1 1330-20-7	Flammable		0.169	Paint	10,20,21, 38	26,23,38
5005	<b>Aerodex WB S-G Modul. B09</b>  Dibutylphthalate (<2.5%) N-methyl-2-pyrrolidone (2.5-10%)	  84-74-2 872-50-4	-	0	0.3547	Paint	51,53,62, 63,36,38	-
5006	<b>Aerodex Finish Semigloss</b>  Xylene (10-25%) Ethylbenzene (2.5-10%) Propanol (2.5-10%) Ethyl acetate (2.5-10%) N-butyl acetate (10-25%) Hydrodesulfurized heavy naphtha (<2.5)	  1330-20-7 100-41-4 67-63-0 141-78-6 123-86-4 64742-82-1	Highly Flammable	0.0049	0.213	Paint	11,20/21	16,23,38
5007	<b>Aerodex Finish Matt</b>  Xylene (10-25%) Ethylbenzene (2.5-10%) Propanol (2.5-10%) Ethyl acetate (2.5-10%) N-butyl acetate (10-25%)	  1330-20-7 100-41-4 67-63-0 141-78-6 123-86-4	Highly Flammable	0	0.026	Paint	11,20,21, 10,38	16,23,38
5008	<b>Aerodex Finish Semigloss</b>		Harmful	0.008	0.053	Paint	-	-

For inspection purposes only.  
Content of copyright owner prohibited for any other use.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Xylene (10-25%) Ethylbenzene (2.5-10%) Propanol (2.5-10%) Ethyl acetate (2.5-10%) N-butyl acetate (10-25%) Hydrodesulfurized heavy naphtha (<2.5%)	1330-20-7 100-41-4 67-63-0 141-78-6 123-86-4 64742-82-1						
5009	<b>Hardener 90075 for aviox finish</b>  Hexane, 1,6-diisocyanate-homopolymere (25-50%) N-butyl acetate (50-100%)	  28182-81-2 123-86-4	Flammable	0.088	2.3	Paint	10	16,23
5010	<b>Hardener S66/14</b>  N-butyl acetate (25-50%) Hexane, 1,6-diisocyanato-homopolymer (25-50%) Benzene, 1,3-diisocyanatomethylpolymer with 1,6-diisocyanatohexane (10-25%) 2-Methoxy-1-methylethyl acetate (2.5-10%) Xylene (2.5-10%) Ethylbenzene (1-2.5%) Hexamethylene-di-isocyanate (0-1%) M-tolylidene diisocyanate (0-1%)	  123-86-6 28182-81-2 63368-95-6  108-65-6 1330-20-7 100-41-4 822-06-0 26471-62-5	Flammable	0.04	1.05	Paint	10,42/43	16,23
5011	<b>Hardener S66/22</b>  N-butyl acetate (50-75%) Hexane,1,6-diisocyanato-, homopolymer (25-50%) 2-Methoxy-1-methylethyl acetate (2.5-10%) Xylene (2.5-10%) Ethylbenzene (1-2.5%) Hexamethylene-diisocyanate (0-1%)	  123-86-4 28182-81-2 108-65-6 1330-20-7 100-41-4 822-06-0	Flammable	0.03	0.633	Paint	10,42/43	16,33,23
5012	<b>Aerodur Arc BAC 707</b>		Flammable		0.092	Paint	11,10,20,	16,23,38

For inspection purposes only. Content of copyright owner required for any other use.



## IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Propanol (<2.5%) Cyclohexanone (<2.5%) N-butyl acetate (2.5-10%) 2-Methoxy-1-methyl ethyl acetate (10-25%)	67-63-0 108-94-1 123-86-4 106-65-6					36	
5013	<b>Aerodur CF Primer 37047</b>  Butanol (2.5-10%) N-butyl acetate (10-25%) 2-methoxy-1-methylethyl acetate (10-25%)	  78-92-2 123-86-4 108-65-6	Flammable Irritant	0.08	1.35	Paint	10,36	2,23,26, 38,51
5014	<b>Epoxy Primer 37076</b>  Xylene (2.5-10%) Ethylbenzene (<2.5%) Epoxy resin (25-50%) 4-methylpentan-2-one (2.5-10%) N-butyl acetate (10-25%) 2-methoxy-1-methyl ethyl acetate (2.5-10%)	  1330-20-7 100-41-4 25068-38-6 108-10-1 123-86-4 108-65-6	Irritant	0	0.105	Paint	10,20,21, 11 38,36,43	16,23,38,37/ 39
5015	<b>Epoxy Primer 37052</b>  Strontium chromate (2.5-10%) Xylene (2.5-10%) Ethylbenzene (2.5-10%) Butanol (2.5-10%) Butanone (2.5-10%) 4-methylpentan-2-one (2.5-10%) N-butyl acetate (2.5-10%)	  7789-06-2 1330-20-7 100-41-4 71-36-3 78-93-3 108-10-1 123-86-4	Carcinogen Flammable	0.02	0.5368	Paint	11,45	53,16,37/39, 45
5016	<b>Alexit Thinner 62 451214888</b>		Flammable Irritant		0.009	Paint	10,20/21, 38,36,20	51,23,1, 38





IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	N-Butyl acetate (80-85%) Xylene (5-10%) 2-Methoxy-1-methylethyl acetate (5-10%) Ethylbenzene (1-5%)	123-86-4 1330-20-7 108-65-6 100-41-4						
5017	<b>Thinner C 25/90S</b>  Propanol (10-25%) Butanone (25-50%) 4-Methylpentan-2-one (10-25%) 2-Methoxy-1-methylethyl acetate (25-50%)	  67-63-0 78-93-3 108-10-1 108-65-6	Flammable Irritant	0	2.5	Paint	11,36/37	16,26,33,38, 51
5018	<b>Thinner 98064</b>  Butanol (10-25%) N-butyl acetate (50-100%) 2-Methoxy-1-methylethyl acetate (25-50%)	  78-92-2 123-86-4 108-65-6	Flammable Irritant	0.02	0.177	Paint	10,36,20	16
5019	<b>SS4004 Silicon molykote</b>  Toluene (10-30%) N-Butyl alcohol (1-5%) Isopropyl Alcohol (10-30%) Tetraethylorthosilicate (1-5%) Acetone (10-30%)	  108-88-3 71-36-3 67-63-0 78-10-4 67-64-1	Flammable Harmful	0	0.005	Paint	11,20	7,16,25, 33
5020	<b>Peelable Coating ref. 6112</b>  Toluene (30-50%) Acetone (20-40%)	  108-88-3 67-64-1	Flammable Harmful	0	0.07	Paint	11,20	9,16,23, 29,33,38
5022	<b>Aerodur Primer S15/90</b>  Strontium chromate (10-25%)	  7789-06-2	Carcinogen	0	0.038	Paint	22,45,10, 20,38,11 36,21	53,16,45



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Xylene (2.5-10%) Ethylbenzene (<2.5%) Butanols (2.5-10%) N-butyl acetate (10-25%) 2-methoxy-1-methyl ethyl acetate (10-25%)	1330-41-4 100-41-4 78-83-1 123-86-4 108-65-6						
5025	<b>Aeroflex Finish G12 E25</b>  Santicizer 141 (2.5-10%) Aliphatic solvents (2.5-10%) Toluene (10-25%) N-Butyl acetate (50-100%)	1241-94-7 - 108-88-3 123-86-4	Flammable Harmful	0	0.13	Paint	36/37/38, 10,11,20	16,23,38
5026	<b>Aerodur Clearcoat UVR</b>  Benzotriazol compound (<2.5%) Xylene (10-25%) Ethylbenzene (2.5-10%) Propanol (<2.5%) N-butyl acetate (10-25%) 2-Methoxy-1-methyl ethyl acetate (10-25%)	25973-55-1 1330-20-7 100-41-4 67-63-0 123-86-4 108-65-6	Harmful	0	0.15	Paint	22,48,10, 20,21,38 11,36	16,23,38,39
5027	<b>Aerodur Finish SGL, aluminium</b>  2-Methoxy-1-methylethyl acetate (25-50%) Naphtha heavy (2.5-10%) Solvent naphtha (2.5-10%) Butanone (2.5-10%)	108-65-6 64742-82-1 64742-95-6 78-93-3	Irritant	0	0.029	Paint	10,65,37, 66,67	-
5030	<b>Heat Resistant Paint S21/8</b>  Aliphatic solvents (2.5-10%) Xylene (10-25%) Ethylbenzene (2.5-10%)	- 1330-20-7 100-41-4	Harmful	0	0.013	Paint	10,11,20, 21,36,38, 43	16,23,38,37/ 39

Consent of copyright owner required for any other use.  
For inspection purposes only.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Butanols (2.5-10%) Epoxy resin (2.5-10%) N-butyl acetate (25-50%)	71-36-3 25068-38-6 123-86-4						
5032	<b>Aerodur Non slip, white BAC 7067- M8001</b>  2-Methoxy-1-methylethyl acetate (10-25%) Cyclohexanone (1-2.5%) N-butyl acetate (1-2.5%) Decanedioic acid, bis ester (0-1%)	  108-65-6 108-94-1 123-86-4 41556-26-7	Flammable	0	0.07	Paint	10,20,36	16,23,38
5033	<b>Cat-A-lac 47313 &amp; Catalyst C-31</b>  Butyl acetate (5-20%) N-butyl alcohol Methyl Ethyl Ketone (10-25%) Organophilic clay (5%) Xylene (5%)	  123-86-4 71-36-3 78-93-3 68953-58-2 1330-20-7	Flammable	0	0.005	Paint	10,11,36, 37,20,21, 38	9,16,25, 33
5034	<b>Fueltank AKZ 454-4-1 YL</b>  Crystalline silica (<10%) N-Butyl alcohol (<10%) Toluene (10-20%) Xylene (<10%) Cyclohexanone (10-20%) Methyl Ethyl Ketone (10-20%) Methyl Isobutyl Ketone (<10%) Isopropyl alcohol (<10%) Chromium VI non volatiles(1-2%) Zinc non volatiles (10-11%)	  14464-46-1 71-36-3 108-88-3 1330-20-7 108-94-1 78-93-3 108-10-1 67-63-0 7440-47-3 7440-66-6	Flammable Harmful Carcinogen	0	0.008	Paint	10,20,11,38,22 ,37, 36,15,17	16,25,29,33, 24,9,23,7,7/ 8,43
5035	<b>Metaflex FCR Primer</b>		Carcinogen	0	0.014	Paint	22,43,45,	53,16,37,45

For inspection purposes only. Content of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Zinc chromate (10-25%) Toluene (<2.5%) Propanol (50-100%) Butanol (<2.5%) Phenol (<2.5%) Butyl acetates (<2.5%)	37300-23-5 108-88-3 67-63-0 71-36-3 108-95-2 110-19-0					11,20,24, 25	
5036	<b>Metaflex FCR Hardener</b> Phosphoric acid (<2.5%) Toluene (10-25%) Propanol (25-50%) Butanol (10-25%)	7664-38-2 108-88-3 67-63-0 71-36-3	Flammable Harmful	0	0.024	Paint	34,10,11, 20	16,33,23
5044	<b>Alexit-FST 404-12</b> Xylene (15-20%) Barium Sulphate (10-15%) 2-Methoxy-1-methylethyl acetate (10-15%) Ethylbenzene (5-10%) N-Butyl acetate (5-10%)	1330-20-7 7727-43-7 108-65-6 100-41-4 123-86-4	Harmful	0	1.89	Paint	10,20/21, 36,38	51,36/37, 23.1,38, 24
5045	<b>Alexit-Harter 400 Luft.451216050</b> Aliphatic Polyisocyanat (70-75%) N-Butyl acetate (25-30%) Hexamethylene-diisocyanate (<0.5%)	28182-81-2 123-86-4 822-06-0	Irritant	0	0.016	Paint	43,10,23, 36/37/38, 42/43	51,23.1, 38,24
5062	<b>Hardener 92133</b> Isobutanol (10-30%) Benzyl alcohol (5-10%)	78-83-1 100-51-6	Harmful Irritant	0	0.268	Paint	10,20/21/ 22, 36/37/38, 43	26,51

For inspection purposes only.  
 Consent of copyright owner required for any other use.

Received  
 26 JAN 2005  
 Environmental Protection Agency  
 02016

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Xylene (30-60%) 3-Aminopropyl-triethoxysilane (1-5%)	1330-20-7 919-30-2						
5068	<b>T-Cut original</b>  White spirit (30-50)	  8030-30-6	Flammable	0	0.0036	Paint	10	2,46
5079	<b>Black Rust Not Spray</b>  Acetone (32-40) Ethanol (5-10%) Ethyl 3-ethoxypropionate (5-10%) Methyl Ethyl Ketone (0-5%) Xylene (5-10%) Propane/Isobutane mixture (20-25%) Propan-2-ol (0-5%)	  67-64-1 64-17-5 763-69-9 78-93-3 1330-20-7 68476-86-8 67-63-0	Extremely Flammable	0	0.081	Paint	36/37,20/ 21,38,12	2,51,16, 23a
5080	<b>Interplan 1065B</b>  Ammonium hydroxide (2%) Propyleneglycol-butylether (7%)	  1336-21-6 5131-66-8	-	0	0.01	Paint	34/37,36/ 38	-
5120	<b>Nycote 7-11</b>  Denatured ethanol alcohol, anhydrol 190 (30-60%) Toluene (10-30%) Phenol (<10%) 2-Nitropropane (<10%)	  64-17-5 108-88-3 108-95-2 79-46-9	Flammable Harmful	0	0.012	Paint	24/25,34, 20/22, 45, 20	-
5137	<b>Catalyst F275-160</b>  Xylene, Mixture of isomers (40-50%) Ethyl benzene (7-10%) Methanol (0.1-0.2%) 2,4,6-Trisphenol (3-5%)	  1330-20-7 100-41-4 67-56-1 90-72-2	-	0	0.014	Paint	-	-

Consent of copyright owner required for any other use.  
For inspection purposes only.

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Methoxysilane (15-20%) Toluene Butan-1-ol	- 108-88-3 71-36-3						
5140	<b>F275-189 inter act</b>  Epoxy resin (2-3%) Ethylbenzene (5-7%) Xylene (20-25%) Propyl alcohol (60-70%)	25068-38-6 100-41-4 1330-20-7 71-23-8	Harmful Irritant	0	0.0072	Paint	36/38, 43, 51/53	-
5210	<b>T230 Thinner</b>  1-Methoxy-2-Propanol (2-3%) Methanol (2-3%) Propyl alcohol (40-50%) Ethanol (40-50%)	107-98-2 67-56-1 71-23-8 64-17-5	Highly Flammable Irritant	0	0.115	Paint	10	-
5215	<b>BMS10-21TY3 Antistat</b>  Methyl Ethyl Ketone (40%) Xylene (10%) Toluene (15%) Isopropyl alcohol (25%) Tridi-me-amino-me-phenol (<5%) Organo silane ester (<5%)  <b>528x310 Sk cond.</b>  Epoxy resin (20%) Butyl acetate (30%) Cyclohexanone (10%)	78-93-3 1330-20-7 108-88-3 67-63-0 90-72-2 1760-24-3  37312-33-7 123-86-4 108-94-1	Harmful Flammable	0	0.015	Paint	-	-

For inspection purposes only. Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	N-Butyl alcohol (<5%) Methyl Ethyl Ketone (15%) Carbon Black (10%) Crystalline silica (15%)	71-36-3 78-93-3 1333-86-4 14808-60-7						
5216	<b>BMS 10-79K Type III</b>  Toluene (40%) Isopropanol (55%) Aliphatic amine (<5%) Organosilane ester (<5%)	108-88-3 71-23-8 90-72-2 1760-24-3	Flammable Harmful	0	0.0038	Paint	-	-
5225	<b>LH-451205010</b> <b>Aerodur Finish C21-100UVR</b>  Cyclohexanone (2.5-10%) N-butyl acetate (2.5-10%) 2-Methoxy-1-methylethyl acetate (25-50%)	108-94-1 123-86-4 108-65-6	-	0	0.0048	Paint	10,20,36	2,16,23
5226	<b>LH 451216000</b> <b>Alexit 414-12 white</b>  Barium sulphate (20-25%) N-Butyl acetate (10-15%) Xylene (5-10%) 4-hydroxy-4-methylpentan-2-one (1-5%) Ethylbenzene (1-5%)	7727-43-7 123-86-4 1330-20-7 123-42-2 100-41-4	-	0	0.14	Paint	10,20/21, 38,36,11	51,23,1, 38
5240	<b>BMS 10-60 TY 1</b>  Benzene (<0.1%) Xylene (0.5%) 1-methoxy-2-propanol acetate (33.2%) Unspecified material (22.1%)	71-43-2 1330-20-7 108-65-6 -	Harmful Toxic Flammable	0	0.00096	Paint	-	-

Consent of copyright owner required for any other use.





IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Aluminium oxide (0.9%) Chromium metal (1%) Lead (4.1%) Titanium dioxide (4.5%) Toluene (0.1%) Silica (0.7%) Carbon black (<0.1%) Methyl Ethyl Ketone (29.9%)	1344-28-1 7440-47-3 7439-92-1 13463-67-7 108-88-3 112926-00-8 1333-86-4 78-93-3						
5275	<b>Aerodur Barrier Primer 37045</b>  Toluene (2.5-10%) Xylene (2.5-10%) Ethylbenzene (<2.5%) 1-Methoxy-2-propanol (<2.5%) Butanone (2.5-10%) 4-methylpentan-2-one (<2.5%) Butyl acetates (<2.5%) 2-Methoxy-1-methyl ethyl acetate (10-25%)	108-88-3 1330-20-7 100-41-4 107-98-2 78-93-3 108-10-1 110-19-0 108-65-6	Flammable Irritant	0	0.014	Paint	11,20,10, 21,38,36, 37	16,23,38,39
5298	<b>Thinner SRA 169023 Fade out Thinner</b>  Toluene (10-25%) N-Butyl acetate (25-50%) 2-Methoxy-1-methylethyl acetate (25-50%)	108-88-3 123-86-4 108-85-6	Harmful	0	0.0048	Paint	11,20,10, 36.	16,23,39
5302	<b>Interplan 1065B</b>  Ammonium hydroxide (2%) Propyleneglycolbutyl ether (7%)	1336-21-6 5131-66-8	-	0	0.035	Paint	34/37,36/ 38.	-
5314	<b>ASN-B-7072 Blue for Nycote 7-11</b>	-	-	0	0.006	Paint	-	-
5317	<b>LH 451206080 Hardener</b>		Harmful	0	0.011	Paint	43,10,36, 20/21,38,	51,23,38,24

For inspection purposes only. Consent of Copyright owner required for any other use.

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Aliphatic polyisocyanat (75-80%) 2-Methoxy-1-methylethyl acetate (10-15%) Xylene (10-15%) Ethylbenzene (1-5%) Hexamethylene-diisocyanate (0.5-1%)	28182-81-2 108-65-6 1330-20-7 100-41-4 822-06-0					23,36/37/ 38,42/43.	
5323	<b>Laquer Celomar 5014 TYII 0986/2620</b>  Xylene (5-10%) 1-methoxy-2-propyl acetate (10-25%) N-Butyl acetate (10-25%) Isocyanate (0-5%)	1330-20-7 - - 0-01-1		0	0.001	Paint	10	23,24,42, 51.
5325	<b>Scotch weld 3901 Metal primer</b>  Methyl alcohol (99-100%) Amino silane (0.1-1.0%)	67-56-1 1760-24-3	Toxic Highly Flammable	0	0.0058	Paint	11,23/25, 36	7,16,23,24/2 5,26, 28,2
5330	<b>Aerodur ARC</b>  Propanol (<2.5%) Cyclohexanone (<2.5%) N-butyl acetate (2.5-10%) 2-Methoxy-1-methyl ethyl acetate (10-25%)	67-63-0 108-94-1 123-86-4 108-65-6	-	0	0.0086	Paint	10	16,23,38
5332	<b>Activator CA8000B</b>  Butyl acetate (2.5-10%) Hdi homopolymer (50-100%) Hexamethylene-1,6-diisocyanate (0-1%) Isocyanate (10-25%)	123-86-4 28182-81-2 822-06-0 0-01-01	Flammable Sensitiser	0	0.47	Paint	43,23,65, 36/37/38, 42/43.	-

Consent of copyright owner required for any other use.



## IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Solvent naphtha (2.5-10%)	64742-95-6						
5333	<b>BMS10-86 Ty2 grey BAC707 Teflon</b> Crystalline silica (<10%) Butyl acetate (10-20%) Methyl Amyl Ketone (10-20%) 1-Methoxy 2 propanol acetate (<10%) Aluminium oxide non volatile (6-7%)	14464-46-1 123-86-4 110-43-0 108-65-6 1344-28-1	-	0	0.0009	Paint	-	-
5337	<b>TL-139</b> Butanone (25-50%) 2-Methoxy-1-methylethyl acetate (25-50%) Propyl alcohol (10-25%) 4-methylpentan-2-one (10-25%)	78-93-3 108-65-6 71-23-8 108-10-1	Irritant Highly Flammable	0	0.0048	Paint	11,36/37	16,24/25,33
5338	<b>Hardener CA 116 for 463-12-8</b> N-beta-gamma-aminopropyl trimethoxysilane (<2.5%) Toluene (2.5-10%) Propanol (10-25%) Butanol (10-25%) 2,4,6-trisphenol (<2.5%) Butanone (50-100%)	1760-24-3 108-88-3 67-63-0 71-36-3 90-72-2 78-93-3	Flammable Harmful	0	0.0048	Paint	11,42,36/ 37	16,33,23,38, 39
5339	<b>Thinner TL 65</b> Toluene (2.5-10%) Xylene (2.5-10%) Ethylbenzene (<2.5%) Butanol (25-50%)	108-88-3 1330-20-7 100-41-4 78-83-1	Flammable Harmful	0	0.0048	Paint	11,20,36/ 37.	16,33,23,38, 39.

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Butanone (25-50%) Cyclohexanone (10-25%)	78-93-3 108-94-1						
5340	<b>Fluid Resistant primer 463-12-8</b>  Strontium chromate (2.5-10%) Xylene (2.5-10%) Ethylbenzene (2.5-10%) Butanol (2.5-10%) Butanone (2.5-10%) 4-Methylpentan-2-one (2.5-10%) N-butyl acetate (2.5-10%)	7789-06-2 1330-20-7 100-41-4 71-36-3 78-93-3 108-10-1 123-86-4	Flammable Toxic Carcinogen	0	0.0096	Paint	11,45.	53,16,45,99.
5343	<b>Hardener S66/16</b>  Polyamide (10-25%) Propanol (25-50%) Butanols (25-50%)	68410-23-1 67-63-0 78-83-1	Flammable Harmful	0	0.0048	Paint	36,38 11 10,20	16 33 23
5344	<b>Epoxy Primer 37002 S15/76</b>  Strontium chromate (10-25%) Toluene (2.5-10%) Xylene (2.5-10%) Ethylbenzene (<2.5) Butyl acetate (10-25%)	7789-06-02 108-88-3 1330-20-7 100-41-4 110-19-0	Highly flammable Carcinogen	0	0.0048	Paint	22,45 11,20	53, 16, 45, 99
5347	<b>515 x 346 Primer</b>  Epoxy resin (30-60%) Methyl Isobutyl ketone (10-20%) Strontium chromate (10-30%) Ethylene glycol monoethyl ether acetate (10-30%)	37312-33-7 108-10-1 7789-06-2 111-15-9	Flammable	0	0.0004	Paint	-	-

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Titanium dioxide (1-10%) Cyclohexanone (<5%) Carbon black (<1%)	13463-67-7 108-94-1 1333-86-4						
5350	<b>Thinner 0491 9000</b>  Ethyl methyl ketone (45-50%) Ethyl acetate (15-20%) 4-Methylpentan-2-one (10-15%) Methoxypropylacetat (5-10%) Xylene (5-10%)	78-93-3 141-78-6 108-10-1 108-65-6 1330-20-7	Highly flammable Irritant	0	0.025	Paint	51,53,62, 63,38	-
5351	<b>Thinner 0470 9000</b>  Ethyl Methyl Ketone (50-55%) N-butyl acetate (50-55%)	78-93-3 123-86-4	Highly Flammable Irritant	0	0.0029	Paint	78-93-3 123-86-4	11-36 10
5352	<b>Durcisseur 0701 Activator 0701/9000</b>  1-methoxy-2-propyl acetate (25-50%) Hdl homopolymer (50-100%) Hexamethylene-1,6-diisocyanate (0-1%) Isocyanate (10-25%)	108-65-6 28182-81-2 822-08-0 00-01-1	Flammable Harmful Irritant Sensitiser	0	0.08	Paint	36	23,36,42,51
5353	<b>Diluant 0434</b>  Diacetone alcohol (50-100%) Ethanol (10-25%) Methanol (0-1%) Xylene (25-50%)	123-42-2 64-17-5 1330-20-7 67-58-1	Highly Flammable Harmful Irritant	0	0.056	Paint	38 20,21,38 23,24,25 39,23,24	16,23,33,36/ 37,51
5354	<b>Diluant Reactif 0841 Activator 0841/9000</b>		Highly Flammable Harmful	0	0.2205	Paint	22,37/38, 41,67	16,23,33, 36/37,51

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Butan-1-ol (2.5-10%) Ethanol (25-50%) Methanol (1-2.5%) Phosphoric acid (2.5-10%) Xylene (50-100%)	71-38-3 64-17-5 67-58-1 7664-38-2 1330-20-7	Irritant					
5355	<b>PAC 33 Primaire beige RAL 1001 HR S. chromate</b>  1-methoxy-2-propyl acetate (25-50%) Butanone (10-25%)	  108-65-6 78-93-3	Highly Flammable Irritant Sensitiser	0	0.326	Paint	36 36,66,67	23,51
5356	<b>P99 Peinture primaire reactif 76413600</b>  Butan-1-ol (25-50%) Butan-2-ol (2.5-10%) Butanone (2.5-10%) Chromium (VI) cpds (2.5-10%) Ethanol (10-25%) Methanol (0-1%) Phenol (0-1%) Zinc potassium chromate (10-25%)	  71-36-3 78-92-2 78-93-3 7440-47-3 64-17-5 67-56-1 108-95-2 11103-86-9	Toxic Highly Flammable	0	0.2205	Paint	22,37/38 41,67 36/37,67 36,66,67 23/24/25, 39/23/24/25	26,33 38/39,51
5357	<b>Diluant 0433</b>  1-methoxy-2-propyl acetate (25-50%) Butanone (25-50%) Ethyl acetate (10-25%) Toluene (10-25%)	  108-65-6 78-93-3 141-78-6 108-88-3	Highly Flammable Irritant Sensitiser	0	0.403	Paint	36 36,66,67 36,66,67 20	16,23,33,51
5358	<b>Heat resistant Spray paint</b>  Toluene (15-30%) Acetone (25-35%) Butane (30-40%)	  67-64-1 106-97-8 108-88-3	Extremely Flammable Harmful	0	0.0014	Paint	11 12 11,20	-

Consent of copyright owner required for any other use.  
For inspection purposes only



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
5361	<b>Desothane HS Topcoat</b> Toluene (1-2.5%) Xylene (1-2.5%) Heptan-2-one (10-25%)	108-88-3 1330-20-7 110-43-0	Flammable	0	0.14	Paint	20 20/21,38 20/22	-
5362	<b>Accelerator Thinner CA8000C2</b> 4-methylpentan-2-one (25-50%) Butyl acetate (25-50%) Pentane-2, 4-dione (10-25%)	123-54-6 123-86-4 108-10-1	Highly Flammable Harmful	0	0.074	Paint	22	-
5363	<b>Desothane HS Reducer 6-8hrs DTT CA8000C1</b> 4-methylpentan-2-one (25-50%) Butyl acetate (25-50%) Pentane-2, 4-dione (10-25%)	108-10-1 123-86-4 123-54-6	Highly Flammable Harmful	0	0.439	Paint	22	-
5364	<b>Pyroflex 7D713 Noir conducteur</b> N-Butyl acetate (>50%) Carbon black (10-25%) Xylene (<2.5%)	123-86-4 1333-86-4 1330-20-7	Flammable	0	0.003	Paint	10,66,67 10,	-
5365	<b>BMS10-11 TY1 Green 10-P4-2/EC117</b> 3-propyltrimeth-oxy silane (<10%) Dimethyl aminmethylphenol mix (<10%) Ethyl Benzene (10-30%) Xylene (30-60%) Propan-2-ol (30-60%)	1760-24-3 - 100-41-4 1330-20-7 67-63-0	Teratogen	0	0.007	Paint	10,20,21, 38 11,36,67	-
5367	<b>Desothane HS topcoat yellow CA8000/R1028</b>		Flammable	0	0.0048	Paint	20/22	-



Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Heptan-2-one (10-25%) Pentan-2-one (1-2.5%) Xylene (2.5-10%)	110-43-0 107-87-9 1330-20-7					20/21, 38	
5368	<b>Desothane HS Thinner CA8000C</b>  4-methylpentan-2-one (25-50%) Butylacetate (25-50%) Pentane-2, 4-dione (10-25%)	108-10-1 123-86-4 123-54-6	Harmful Highly Flammable	0	0.0024	Paint	20,36/37, 66	-
5369	<b>PAC 33 Primaire beige RAL 1001 HR S. chromate 43603031</b>  1-methoxy-2-propyl acetate (25-50%) Butanone (10-25%)	108-65-6 78-93-3	Highly Flammable Irritant Sensitises	0	0.216	Paint	36 36,66,67	
5370	<b>Desothane HS Topcoat Blue CA8000/B5022</b>  1-Methoxy-2-propyl acetate (1-2.5%) Heptan-2-one (10-25%) Pentan-2-one (0-1%) Xylene (1-2.5%)	108-65-6 110-43-0 107-87-9 1330-20-7	Flammable	0	0.029	Paint	20 20/21,38	-
5371	<b>Desothane HS Topcoat White CA8000/B7945</b>  Heptan-2-one (10-25%) Pentan-2-one (0-1%) Toluene (1-2.5%) Xylene (1-2.5%)	110-43-0 107-87-9 108-88-3 1330-20-7	Flammable	0	0.077	Paint	20/22	-
5372	<b>Desothane HS Topcoat Black CA8000/B701</b>  1-Methoxy-2-propyl acetate (1-2.5%)	108-65-6	Flammable	0	0.0058	Paint	36 20/22	-

For inspection purposes only. Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Heptan-2-one (10-25%) Pentan-2-one (0-1%) Xylene (1-2.5%)	110-43-0 107-87-9 1330-20-7						
5373	<b>Desothane HS Topcoat Grey CA8000/B708</b>  Heptan-2-one (10-25%) Pentan-2-one (0-1%) Toluene (1-2.5%) Xylene (1-2.5%)	110-43-0 107-87-9 108-88-3 01-02-5	Flammable	0	0.0479	Paint	20/22  20 20/21,38	
5374	<b>Desothane HS Topcoat Red CA8000/R3000</b>  Heptan-2-one (10-25%) Pentan-2-one (1-2.5%) Xylene (2.5-10%)	110-43-0 107-87-9 1330-20-7	Flammable	0	0.0058	Paint	20/22	-
5375	<b>Desothane HS Topcoat Mica Silver CA8000/C6631</b>  Butyl acetate (1-2.5%) Heptan-2-one (10-25%) Pentan-2-one (0-1%) Xylene (2.5-10%)	123-86-4 110-43-0 107-87-9 1330-20-7	Flammable	0	0.072	Paint	66,67 20/22 20/21,38	-
5378	<b>Metaflex FCR Plus</b>  Butan-1-ol (25-50%) Zinc chromates (10-25%) Ethanol (10-25%) Butanone (2.5-10%) Toluene (2.5-10%) Isobutyl acetate (1-2.5%) Phenol (0-1%)	71-36-3 37300-23-5 64-17-5 78-93-3 108-88-3 110-19-0 108-95-2	Carcinogen Highly Flammable Harmful Irritant Sensitiser Toxic to aquatic organisms.	0	0.71	Paint	10,22 37/38,41, 67 45,22,43, 50/53,53 11 11,36,66, 67 11, 20	-

For inspection purposes only. Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Methanol (0-1%) Formaldehyde (0-1%)	67-56-1 50-00-0					11,66 24,25,34 11 23/24/25, 39/23/24/ 25,40 23,24,25, 34,43	
5379	<b>Metaflex FCR Plus Hardener</b>  Xylene (25-50%) Ethanol (25-50%) Ethylbenzene (10-25%) Butan-1-ol (10-25%) Phosphoric acid (2.5-10%) Methanol (0-1%)	1330-20-7 64-17-5 100-41-4 71-36-3 7664-38-2 67-56-1	Irritant	0	0.6998	Paint	10,20/21, 38, 11	-
5383	<b>Desothane HS Topcoat Grey CA8000/C9635</b>  Heptan-2-one (10-25%) Pentan-2-one (0-1%) Toluene (1-2.5%) Xylene (1-2.5%)	110-43-0 107-87-9 1330-20-7 108-88-3	Flammable	0	0.072	Paint	20/22	-
5385	<b>Desothane HS Topcoat Grey CA8000/F16515</b>  Heptan-2-one (10-25%) Pentan-2-one (0-1%) Toluene (1-2.5%) Xylene (1-2.5%)	110-43-0 107-87-9 108-88-3 1330-20-7	Flammable	0	0.116	Paint	20/22	-
5393	<b>N 59111 451206070 Anti static Primer</b>		Flammable	0	0.048	Paint	-	-

For inspection purposes only.  
Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
5404	Butyl acetate <b>Intermediate Coat Light Grey F565-4010</b> Benzyl alcohol (3-5%) Propyl Alcohol (50-60%)	123-86-4 100-51-6 71-23-8	Irritant	0	0.038	Paint	20/22, 11,41,67	-
6002	<b>EA934/A</b> Epoxy Novolac resin (30-60%) Aluminium Powder N,N-Diglycidyl-4-glycidyoxyaniline (10-30%) Silica (1-5%) <b>EA934/B</b> Polyamide resin (30-60%) Diethylenetria-mine (10-30%) Triethylenetetra-mine (5-10%)	28064-14-4 7429-90-5 5026-74-4 112945-52-5 - 111-40-0 112-24-3	Harmful Dangerous to the environment	0	0.036	Composite	36/38,43 22, 36/37/38	26,24/25, 36/37,60
6008	<b>EA9390A</b> N,N-Diglycidyl-4-glycidyoxyaniline (30-60) Silica (1-5) Epoxy resin (30-60) <b>EA9390B</b> 2,2-dimethyl-4,4-methylenebis(cyclohexylamine) (60-100)	5026-74-4 112945-52-5 25068-38-6 6864-37-5	Harmful Carcinogen Toxic to aquatic organisms Toxic Corrosive	0.006	0.039	Composite	22,36/38, 43 22,36/37/ 38,40,43 22,23/24, 35,51/53 36/38,43, 51/53	28,37/39 26,36/37,39 45
6009	<b>EY3804A</b> Glycidyl ether (10-30) Amorphous silica (1-5) Epoxy resin (60-100) <b>EY3804B</b>	- 7631-86-9 25068-38-6	Harmful Carcinogen (Cat. 3) Corrosive	0.001	0.019	Composite	21/22,36/ 38,40,43 34,43	26,24/25,36/ 37 26,45,24/25, 36/37/39

For inspection purposes only. Consent of copyright owner required for any other use.

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Polyamide resin (60-100) Benzyl alcohol (5-10) Carbon Black (0-1) Diethylenetria-mine (5-10) Aliphatic amine (5-10)	68410-23-1 100-51-6 1333-86-4 111-40-0 68605-86-7						
6015	<b>Mould Release QZ 5111</b> Naphtha (90-95) Hexane isomers Triethylenettra-mine	64742-49-0 110-54-3 112-24-3	Flammable Harmful Irritant	0.001	0.006	Composite	11-51/53-65 11 21-34-43- 52/53	7,16
6016	<b>BR127</b> 2-Butanone (58.2) Tetrahydrofuran (17.9) Diacetone alcohol (13.4) Strontium Chromate (2) Methanol (0.6) Formaldehyde (<0.0131)	78-93-3 109-99-9 123-42-2 7789-06-2 67-56-1 50-0-0	Flammable Irritant Carcinogen (Cat.2)	0.0037	0.0099	Composite	-	-
6017	<b>Epocast 1616A</b> Phosphoric acid (0-10) Antimony oxide (0-10) Oxirane, [(2-methylphenoxy)methyl] (0-10) Epoxy resin (30-60) Oxirane, [[4-(1,1-dimethylethyl)phenoxy]methyl] (0-10) Benzene,1,1-oxybis-pentabromo deriv (0-10) Epoxy resin (10-30) Glass, oxide, chemicals (10-30) Oxirane, mono[(C10-16-alkyloxy)methyl]derivs (0-	115-86-6 1309-64-4 2210-79-9 25068-38-6 3101-60-8 32534-81-9 25068-38-6 65997-17-3 68081-84-5	Irritant Carcinogen (Cat.3)  Corrosive Harmful	0	0.1225	Composite	36/38,43, 51/53,40  34,21/22, 43	28,37/39  26,36/37/39

Consent of copyright owner required for any other use.



Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	10) <b>Epocast 1616B</b> 1,2-Ethanedia-mine, N-(2-amino-ethyl) (60-90) Ethanol, 2-amino (0-10) Phenol,4,4-(1-methylethylidene) bis (10-30) Adduct diethylene-triamine, monoethanol-amine & bisphenol A (0-10)	111-40-0 141-43-5 80-05-7 32430						
6018	<b>EPOCAST 1636A</b> Aluminium hydroxide (0-10) Oxirane, 2,2 [1,4-butanediylbis (oxy-methylene)]bis- (0-10) Phenol, 4,4-(1-methylethylidene) bis-, polymer with (chloromethyl) oxirane (10-30) Phenol, polymer with formal-dehyde, glycidyl ether (10-30) Carbonic acid calcium salt (1:1) (10-30) Ammonium polyphosphate (0-10) Aluminium (10-30)  <b>Epocast 1636B</b> 1,2 Ethanediamine, N,N-bis (2-aminoethyl) (30-60) 1,3- Benzene dimethanamine (10-30) Phenol,4,4-(1-methylethylidene) bis-, polymer with (chloromethyl)oxirane (10-30) 1H-Imidazole, 1-methyl- (0-10) Bis (N-aminoethyl aminoethyl) imidazolidine -alpha, omega-heptane (10-30)	21645-51-2 2425-79-8  25068-38-6  28064-14-4  471-34-1 68333-79-9 7429-90-5  112-24-3 1477-55-0 25068-38-6  616-47-7 21751	Carcinogen (ARC 2A)	0	0.014	Composite	-	-
6019	<b>Lefkoweld 109</b> Bisphenol A Epoxy resin Epichlorohydrin	25068-38-6 106-89-8	Toxic Harmful Carcinogen (Cat.2)	0	0.0009	Composite	45,10,23/ 24/25,34, 43,36/38 20	53,45,43 24/25

Consent of copyright owner required for any other use.

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Vinyl acetate polymer Butyl glycidyl ether	9003-20-7 2426-08-6						
6021	<b>EA956A</b> Epoxy resin (30-60) N,N-diglycidyl-4-glycidioxyaniline (30-60) <b>EA956B</b> Polyamide resin (30-60) Diethylenetria-mine (10-30) Triethylenetetra-mine (5-10)	25068-38-6 5026-74-4 - 111-40-0 112-24-3	Harmful Dangerous for the environment Harmful Corrosive	0.0009	0.0045	Composite	36/38,43 22, 36/37/38, 36/38 21/22,34, 43 21,34,43	26,24/25,36/ 37,60,61 26,45,24/25 36/37/39,60
6022	<b>Scotchweld 2216 Accelerator (EC-2217)</b> Aliphatic polymer diamine (60-65) Aluminium silicate pigment (35-40) Carbon black (0.01-0.1)	68911-25-1 1332-58-7 1333-86-4	Irritant	0	0.038	Composite	36/38,43	24/25,37/39, 28,26
6024	<b>Versamid 125</b> Triethylenetetramine (5-9.9)	112-24-3	Irritant	0.001	0.001	Composite	21,34,43	26,36/37/39
6025	<b>HV997</b> Bisphenol A/ epichlorohydrin epoxy resin	25068-38-6	Irritant	0	0.0035	Composite	36/38,43 51/53	28,37/39
6026	<b>Scotchweld 3532 B/A Part B Urethane Adhesive</b> Polyester resin (45-55) Polypropylene glycol (20-30) Talc (15-25) Polyoxypropylene Triol (1-10) O-Diethyl-bisaniline (1-10) Zeolite (1-10)	- 25322-69-4 14807-96-6 25723-16-4 13680-35-8 68989-22-0	Harmful Irritant Sensitiser	0	0.023	Composite	20,36/37,	23,51,24/25

For inspection purposes only.  
Consent of copyright owner required for any other use.





IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Beta-(3,4-Epoxy cyclohexyl) ethyltrimethoxysilane (0.1-0.5)  <b>Part A</b>  Urethane Prepolymer (25-35) Talc (20-30) Diphenylmethane diisocyanate (15-25) Higher oligomers of MDI (15-25) Zeolite (1-10)	3388-04-3  - 14807-96-6 26447-40-5 9016-87-9 68989-22-0						
6027	<b>EA9309-3NA/A</b>  Epoxy resin (60-100) Butadiene acrylonitrile copolymer (5-10) Titanium dioxide (1-5) Silica (1-5)  <b>EA9309-3NA/B</b>  4,7,10-Trioxatridecane-1,13-diamine (60-100) Alkyl amine (10-30) Diethylenetri-amine (5-10) Phenol (0-1)	25068-38-6  13463-67-7 112945-52-5  4246-51-9  111-40-0 108-95-2	Irritant Dangerous for the environment Harmful Corrosive	0	0.0054	Composite	36/38,43 36/37/38  21/22,34, 43 21/22,34, 43 21/22,34, 43 24/25, 34	26,37,24/25, 60/61  26,45,24/25, 36/37/39, 60
6033	<b>Diethylenetriamine 99%</b>	111-40-0	Harmful Corrosive	0	0.0115	Composite	21/22,34, 43	26,36/37/39, 45
6034	<b>MS122DF-Spray</b>  1,1-Dichloro-1-Fluoroethane (60-100) Telomer of Tetrafluoroethy-lene (0-1) 1,1,1,2-Tetrafluorethane (10-30)	1717-00-6 65530-85-0 811-97-2	-	0	0.00045	Composite	-	21,26,38,39, 24/25,60
6037	<b>Epocast 50A</b>	25068-38-6	Irritant	0	0.0036	Composite	36/38-43-51/53	



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Bisphenol A epoxy resin (50-62) Tricresyl phosphate (<0.15) Tricresyl phosphate (10-17)  <b>Hardener 9816</b>  Triethylenetet-ramine (1-5)	78-30-8 78-32-0  112-24-3					39/23/24/25 21/22 34,21,43	24/25
6038	<b>Silver Goop</b>  Castor oil (50-60) Silver (20-30) Talc (5-10) Organophilic clay (5-10) Magnesium oxide (<5)	8001-79-4 7440-22-4 14807-96-6 71011-27-3 1309-48-4	Irritant	0	0.002	Composite	-	-
6040	<b>2202 Microballoons</b>  Silicic acid Sodium salt Boric acid Sodium salt	- - 10043-35-3 -	Irritant	0	0.0009	Composite	-	-
6041	<b>Epon 828</b>  Epoxy resin (99.99)	25068-38-6	Irritant Dangerous for the environment Sensitiser Toxic to aquatic organisms	0	0.028	Composite	36/38,43	-
6042	<b>Epibond 156 Part A</b>  Epoxy resin (30-60) Dibutyl phthalate (1-5)	25068-38-6 84-74-2	Irritant  Corrosive	0	0.018	Composite	36/38,43 62,63 21/22,43, 34,52/53	-

For inspection purposes only.  
Consent of copyright owner required for any other use.

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	<b>Epibond 156 Part B</b> Diethylenetri-amine (60-100)	111-40-0						
6173	<b>AF888</b> Acrylate Polymer (6-8)	9017-68-9	Irritant	0.005	0.05	Composite	-	-
6190	<b>EC-3960</b> Methyl Ethyl Ketone (40-50) Diacetone alcohol (10-20) Tetrahydrofuran (10-20) Epoxy resin (3-7) Epoxy resin (1-5) 1-Methoxy-2-propanol (1-5) Water (1-5) Strontium chromate (1-5) Methyl alcohol (0.1-1.0) Acetone (0.1-1.0)	78-93-3 123-42-2 109-99-9 25036-25-3 28064-14-4 107-98-2 7732-18-5 7789-006-2 67-56-1 67-64-1	Carcinogen (Cat.2) Harmful Irritant	0	0.0048	Composite	-	-
6244	<b>Pasa-Jell 105</b> Sulfuric acid (10-30) Chromic acid (1-10) Inorganic oxide (1-10)	7664-93-9 7738-94-5 -	Carcinogen	0.001	0.0034	Composite	-	-
6245	<b>Initiator 1</b> Butraldehyde-aniline condensation product Aniline	34562-31-7 62-53-3	Carcinogen Irritant Harmful	0	0.002	Composite	20/21/22 48/23/25, 50	-
6247	<b>Araldite LY 560</b> Bisphenol A epoxy resin (76-88) Diglycidylether of polypropylenegly-col (2-8)	25068-38-6 9072-62-2	Irritant Sensitiser	0	0.002	Composite	36/38,43, 51/53	-

For inspection purposes only.  
Consent of copyright owner required for any other use.

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
7001	<b>Dinitrol AV 30</b> White spirit (35-45) Butyl glycol (1.1-1.6) Light paraffinic oil (1-5) Alkyd resin (4-10) Hydrocarbon resins (20-25) Polyolefin (3-8) Waxes (1-5) Inhibitor (10-15) Surfactant (0-2) Pigment & perfume (0-0.2) Lanolin (1-5) Drying agent (0-1)	64742-48-9 111-76-2 64741-89-5 68390-25-0 - 9002-88-4 - - 25307-17-9 - 8006-54-0 -	Flammable	0.0998	1.016	Oils/greases	65 37,20/21/ 22 36/38 34,22,50	9,23,24, 28,38
7003	<b>Dinitrol AV 100D</b> White spirit (20-30) Light paraffinic distillate (3-10) Resins (25-35) Wax of hydrocarbons (10-15) Calcium carbonate (7-12) Lanolin (1-5) Thickener (1-5) Inhibitors (5-10) Oxidized hydro-carbon (5-10) Perfume(<0.05)	64742-48-9 64741-89-5 - 63231-60-7 1317-65-3 8006-54-0 68953-58-2 - 64743-01-7 -	Flammable	0	0.0019	Oils/greases	10,20/22	9,16,29, 33,38,23
7004	<b>Dinitrol AV 8</b> Naphtha Hydro-treated heavy (50-60) Inhibitor (Sulfon-ate based) (1-5) Inhibitor (Sulfon-ate based) (10-15)	64742-48-9 57855-77-3 25619-56-1	Flammable	0	1.11	Oils/greases	65 36/38 36/38	-

For inspection purposes only. Consent of copyright owner required for any other use.



## IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
7005	WD-40 Naphtha (Petroleum) (67) Hydrotreated heavy mineral oil (21) Carbon dioxide (2-3) Non hazardous ingredient (<10)	64742-48-9 64742-65-0 124-38-9 -	Flammable Irritation	0	0.145	Oils/greases	10,65,66 10,66	-
7007	Hyjet IV-A Tributyl phos-phate (74) Triarylphosphate (26)	126-73-8 -	Harmful Carcinogen (Cat.3)	0.016	0.094	Oils/greases	40,43,36/ 38	24/25,26,39, 36/37
7008	Skydrol LD Type 4 Butyl diphenyl phosphate Dibutyl Phenyl phosphate Tributyl phosphate 2,6-Di-tert. Butyl p-cresol	2752-95-6 2528-36-1 126-73-8 128-37-0	Irritant	0.001	0.27	Oils/greases	36/38	34/35
7010	Aeroshell Compound 05	-	-	0	0.012	Oils/greases	-	-
7012	Aeroshell Grease 14 Soap Petroleum	- 74869-21-9	-	0	0.015	Oils/greases	-	-
7013	Aeroshell Grease 17 Phenyl alpha naphthylamine (<1.5) Molybdenum disulphide	135-88-6 -	Irritant	0	0.011	Oils/greases	43	24,37
7014	Aeroshell Grease 22 Arylated naphthylamine (<2)	-	Irritant	0.006	0.037	Oils/greases	43	20,24,46
7015	Aeroshell Grease 5	-	-	0	0.003	Oils/greases	-	-

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Petroleum Clay Thickener Additives	-						
7016	<b>Aeroshell Fluid 12</b> Barium dinonyl naphthasulphonate (<3) Phenothiazine (0-0.7) N,N-bis (2-ethylhexyl)-1H-benzotriazole-1-methylamine (0-0.02) N,N-bis(2-ethylhexyl)-methyl-1H-benzotriazole-1-methylamine (0-0.05)	- 92-84-2 - -	Harmful Irritant	0	0.0038	Oils/greases	20/22,43 41,36/38	-
7017	<b>Shell Aviation Fluid 3</b> Barium dinonyl naphtha sulphonate (0-5) Calcium dinonyl naphtha sulphonate (0-2) N,N-bis(2-ethylhexyl)-1H-benzotriazole-1-methylamine (0-0.3)	- - -		0	0.035	Oils/greases	20/22,41, 38,36/37/ 38,43	-
7019	<b>Mobil Jet Oil 254</b> Tricresyl phosphate (1-5)	1330-78-5	Harmful	0.053	0.14	Oils/greases	-	-
7020	<b>Mobil Jet Oil II</b> Tricresyl phosphate (1-5) 1-Naphalenamine, N-phenyl (1-5)	1330-78-5 90-30-2	Harmful Irritant Dangerous for environment	0.3229	0.185	Oils/greases	40,20,21, 22,43,50, 53	20/21,28
7022	<b>MobilGrease 28</b> Pentaerythritol (1-5)	115-77-5	-	0	0.1097	Oils/greases	-	-

Consent of copyright owner required for any other use.

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
7023	<b>Aeroshell Grease 16</b> Synthetic esters Petroleum Inorganic clay Additives	- - - -	none	0	0.008	Oils/greases	-	-
7024	<b>AMS4 Silicone Grease</b> LPG (40-60) Methylcyclohexane (40-50)	- 108-87-2	Flammable	0	0.00014	Oils/greases	12	16,23,24/ 25,51
7025	<b>Aeroshell Fluid 41</b> Petroleum Additives	- -	-	0.16	1.985	Oils/greases	-	-
7029	<b>Mastinox 6856K</b> Xylene (2.5-10) Toluene (2.5-10) Strontium chromate (10-25) Barium chromate (10-25) Chromium (VI) compounds (2.5-10)	108-38-3 584-84-9 7789-06-2 - 7440-47-3	Harmful Toxic Carcinogen (cat.2)	0.01	0.109	Oils/greases	20/21,38, 22,45	9,23,38, 53
7031	<b>Rocol RTD liquid</b> C10-C13 Chlorinated Paraffins Sulphurised ester	- - -	-	0	0.00115	Oils/greases	-	-
7032	<b>Molykote G-Rapid Plus Paste</b> Calcium hydroxide (20)	1305-62-0	Corrosive	0	0.00395	Oils/greases	34	24/25,62



Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Molybdenum disulphide (25) Graphite (10) Mineral oils (40)	1317-33-5 7782-42-5 -						
7034	<b>Aeroshell Turbine Oil 308</b> Benzenamine, n-phenyl- (<1.5) Phenyl alpha naphthylamine (<1.0)	- -	Irritant Harmful	0.0028	0.0073	Oils/greases	36/37,43, 20/21/22, 43	-
7035	<b>MCS 352B Hydr-aulic Ass-embly Lubricant</b> Tributyl phosphate	126-73-8	-	0	0.00046	Oils/greases	-	-
7038	<b>Skydrol 500B Type 4</b> Butyl Diphenyl phosphate Dibutylphenyl phosphate Tributyl phosphate 2,6- Di-tert. Butyl p-cresol	2752-95-6 2528-36-1 126-73-8 128-37-0	Harmful	0	0.82	Oils/greases	22	-
7040	<b>LPS 3 Heavy- Dusty Rust Inhibitor</b> Aliphatic Hydrocarbon Petroleum oil Dipropylene glycol monomethyl ether Carbon dioxide propellant	64742-88-7 64742-52-5 34590-94-8 124-38-9	Flammable	0	0.116	Oils/greases	10,36/37	2,16,23, 51
7042	<b>Aeroshell Grease 7</b> Synthetic ester (80-85) Inorganic clay (5-10) Fatty acid amides (3-5) Phenyl-alpha-naphthylamine (1-2) Additives (1-2)	103-24-2 1302-78-9 - 90-30-2 -	Irritant	0	0.25	Oils/greases	20/21/22, 43	37,24,46

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
7051	<b>Aeroshell Turbine oil 560</b> Synthetic ester (0-96) Synthetic ester (0-96) Octylated n-phenyl-1-naphthylamine (1-2) P,P-Dioctyl-diphenylamine (1-2) Tricresyl phosphate (1) Minor additives (<1)	68424-31-7 68424-33-9 68259-36-9 101-67-7 1330-78-5 -	-	0	0.0038	Oils/greases	-	-
7052	<b>Royco11MS</b> Bentonite clay (5-10) Fatty acid diethanolamide (1-5) Molybdenum disulfide (5-10) Petroleum oil (60-100)	1302-78-9 - 1317-33-5 -	-	0	0.005	Oils/greases	-	26,24/25
7056	<b>Molykote 55M Grease</b>	-	-	0	0.006	Oils/greases	-	-
7060	<b>Molykote Pulver spray</b> White spirit Propane/butane Molybdenum (IV) sulfide	- - -	-	0	0.004	Oils/greases	-	-
7062	<b>Parkerolube</b> Mineral oil (60-100) Barium soap (10-30)	64742-52-5 68201-19-4	-	0	0.011	Oils/greases	-	-
7066	<b>Aeroshell Grease 7</b> Phenyl alpha naphthylamine (<2)	-	Irritant	0	0.100	Oils/greases	43	37,24,46
7070	<b>ZX-35 Powder</b> Molybdenum disulphide powder	-	-	0	0.0005	Oils/greases	-	-

Consent of copyright owner required for any other use.  
For inspection purposes only.



## IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
7073	MICA Lubricant Anti-Seize	-	-	0	0.00045	Oils/greases	-	-
7076	Molykote (R) 33 Grease, Medium	-	-	0.0004	0.0104	Oils/greases	-	-
7078	Shell Turbo Oil T Phenyl alpha naphthylamine (<0.2) Amines, (1H-benzotriazol-1-ylmethyl)dicoco alkyl (<0.03) N,N-bis (2-ethylhexyl)-1H-benzotriazole-1-methylamine (<0.01)	- - -	-	0.0239	0.023	Oils/greases	43	-
7087	Molykote (R) Z Powder Molybdenum disulphide (~99)	1317-33-5	-	0	0.001	Oils/greases	-	22,25
7094	Everlube @ 620A RTA (10-101) Molybdenum disulfide Methyl Ethyl ketone (<10) Xylene (<10) Ethanol Toluene (45-55) N-Butanol (<10) Methyl Isobutyl Ketone (<10) Cellosolve acetate (<10)	1317-33-5 78-93-3 1330-20-7 64-17-5 108-88-3 71-36-3 108-10-1 111-15-9	Flammable Harmful	0	0.0009	Oils/greases	-	-
7095	Skydrol LD Type 4 Butyl diphenyl phosphate Dibutyl phenyl phosphate Tributyl phosphate 2,6- Di-tert. Butyl p-cresol	2752-95-6 2528-36-1 126-73-8 128-37-0	Harmful	0	1.99	Oils/greases	22	-
7102	Castrol Aero HF35	-	-	0	0.575	Oils/greases	-	-



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Refined Mineral Oil Additives	-						
7117	<b>Molykote (R) D 321 R Spray</b> Butane (58) Naphtha(Petrol-eum) (10) N-Butyl acetate (10) Molybdenum sulfide (6) Polybutyl titanate (4)	106-97-8 64742-82-1 123-86-4 1317-33-5 9022-96-2	Extremely Flammable Harmful to aquatic organisms.	-	0.056	Oils/greases	66,67 65,51/53 36	
7124	<b>Procyon</b> Aliphatic hydrocarbon (40-60) Petroleum oil (10-15) Dipropylene Glycol Mono-methyl ether (2-3)	64742-88-7 64742-52-5 34590-94-8	Flammable	0	0.019	Oils/greases	10	2,16,23, 51
7125	<b>Molykote (R) D321R Spray</b> Propane/Butane propellant (~68) N-Butyl acetate (~11) Mineral Oils (~10) Proprietary Polymer (~3) Molybdenum disulphide (~6) Graphite (~2)	- 123-86-4 - - 1317-33-5 7782-42-5	Flammable	0.002	0.022	Oils/greases	12	23, 24/25, 51
7131	<b>LPS 1 Greaseless Lubricant</b> Odourless Kerosene (60-100) Aliphatic Hydrocarbon (15-30)	64742-47-8 64742-30-9	Flammable	0	0.004	Oils/greases	65	16,51,23,2
7132	<b>Tectyl ML, Engine Guard</b> Butane (10-25)	106-97-8	-	0	0.004	Oils/greases	12,18	2,16,33, 23,51

For inspection purposes only. Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
7134	<b>ROYCO 308A</b> Hydrotreated Light naphthenic distillate (60-100) Distillates, Petroleum (1-5) Barium Dinonyl naphthasulphonate (1-5)	64742-53-6 64742-46-7 25619-56-1	Harmful	0	0.015	Oils/greases	36/38, 65	26,24/25,62
7136	<b>BOELUBE 70302/70307</b>	-	-	0	0.002	Oils/greases	-	-
7137	<b>Aeroshell Grease 33</b> Zinc C1-C14 Alkyl Dithiophosphate (1)	-	-	0	0.419	Oils/greases	41,38	-
7140	<b>MIL-T-5544-1.75 LB</b> Graphite (30-60)	7782-42-5	Irritant	0	0.004	Oils/greases	36/38	26,37,24/25
7141	<b>Armna G4789</b>	-	-	0	0.135	Oils/greases	-	-
7142	<b>Molykote (R) G-Rapid Plus Spray</b> Mineral Oils (>40) Butane (35) Molybdenum Disulfide (8) Calcium Hydroxide (6)	- 106-97-8 1317-33-5 1305-62-0	Extremely flammable	0.003	0.02	Oils/greases	21 41 12	16 23 24/25 51
7143	<b>Jenolite RRN</b> Phosphoric acid (37)	7664-38-2	Irritation	0	0.00012	Oils/greases	-	-
7144	<b>Ardrox 3302</b> Aliphatic hydrocarbons (30-60)	64742-48-9	Flammable	0.049	0.0048	Oils/greases	-	-
7145	<b>Turmogrease Li AzR</b>	-	-	0.015	0.01	Oils/greases	-	-

For inspection purposes only.  
Consent of copyright owner required for any other use.

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Ester oils Lithium soap Additives	- - -						
7146	<b>BPTO2197</b> Aromatic phosphate ester (>90)	-	Harmful	0.0394	0.103	Oils/greases	-	-
7147	<b>Hydraunycoil FH 5 AW</b> Alkylated phenol (<0.5) Triaryl phosphate (<1) Thiophosphate (<2)	128-37-0 68937-41-7 68649-42-3	-	0.019	0.019	Oils/greases	-	-
7149	<b>Renolit CL X2</b> Highly refined mineral oil (40-50) Highly refined mineral oil (20-30) Diphenylamine (<1)	64742-15-6 64742-65-0 122-39-4	Irritant	0.025	0.0125	Oils/greases	23/24/25, 33 50/53	
7150	<b>Molykote (R) P 37 paste</b> Mineral oil (43) Calcium hydroxide (15) Polybutene (6)	8042-47-5 1305-62-0 9003-29-6	-	0	0.001	Oils/greases	36/38	-
7151	<b>NYCO Grease GN 144</b> Aromatic amine (<2) Alkylated phenol (<1)	201-983-0 239-816-9	-	0.007	0.024	Oils/greases	52,53	-
7153	<b>0314015</b> <b>Moly Dry Film Antiseize</b>		Highly Flammable Harmful	0	0.001	Oils/greases	10,37,51/ 53, 65,	-



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Aromatic solvent (20-30) 1,2,4-Trimethyl-benzene (5-10) 1,3,5-Trimethyl-benzene (1-5) Toluene (1-5)	- - - 108-88-3	Irritant Toxic to aquatic Adverse effects in aquatic.				10, 20 36/37/38 10,37 11,20	
7154	<b>ROYCO 22MS</b>  Polyalphaolefins (60-90) Organophilic clay (60-90) Molybdenum disulphide (<10) Sodium Nitrate (<10) Graphite (<10) Pentaerythritol esters (<10) Other additives (<10)	68037-01-4 71011-25-1 1317-33-5 7631-99-4 7782-42-5 68424-31-7 -	Irritant	0	0.00045	Oils/greases	22	-
7155	<b>Molykote (R) G-N Plus Paste</b>  White mineral oil (41) Calcium dihydroxide (26)	8042-47-5 1305-62-0		0	0.00029	Oils/greases	36/38	-
7156	<b>Turbonycoil 3516</b>  Alkylated phenol (<1)	204-881-4	-	0	0.0038	Oils/greases	-	-
9002	<b>Fixer Industrex Kodak 505 3863</b> 225ml A + 50ml B to 1 litre <b>Part A</b>  Ammonium Thiosulphate (50-60) Water (35-40) Sodium acetate (1-5) Sodium bisulphite (1-5)	7783-18-8 7732-18-5 127-9-3 7631-90-5	Irritant	0	0.192	Photographic development	36/38	26

Consent of copyright owner required for any other use.  
For inspection purposes only.



Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	Boric acid (1-5) Acetic acid (1-5)  <b>Part B</b>  Water (70-80) Aluminium sulphate (10-15) Acetic acid (10-15) Tartaric acid (1-5)	10043-35-3 64-19-7  7732-18-5 10043-01-3 64-19-7 87-69-4						
9003	<b>Kodak Industrex Developer Replenisher 505 5959</b> <b>Part A</b>  Water (60-65) Potassium sulphite (20-25) Hydroquinone (5-10) Potassium carbonate (1-5) Sodium bromide (1-5) Pentetic acid (1-5)  <b>Part B</b>  Acetic acid (50-55) Diethylene glycol (35-40) 1-phenyl-3-pyrazolidone (5-10) Water (5-10)  <b>Part C</b>  Water (65-70) Glutaraldehyde bis (Sodium bisulphite) (20-25) Glutaraldehyde (10-15) Acetic acid (<1)	  7732-18-5 10117-38-1 123-31-9 584-08-7 7647-15-6 140-01-2  64-19-7 111-46-6 92-43-3 7732-18-5  7732-18-5 7420-89-5 111-30-8 64-19-7	    Irritant   Corrosive  Corrosive	          0.088	          0.192	          Photographic development	    43,37/38   34   20/22,34 42/43	          23,26, 36/37   26,37/39,45   23,26,36/37/ 39,45
9006	<b>Pseridan Disinfecting Solution</b>	-	Irritant	0	0.0019	Disinfectant	-	-

For inspection purposes only. Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
9007	<b>Kit AY Surface Prep</b>							
	Fluorinated Solvent Halogenated silane	86508-42-1 -						
	<b>Cleaning Solvent</b>							
	Hydrotreated Heavy Naphtha	64742-48-9	Toxic Flammable	0	0.046	Cleaning agent	-	-
9014	<b>Polishing Slurry</b>							
	Aluminium Oxide Water	1344-28-1 7732-18-5						
	<b>AF 201 Hardener</b>							
	2,4,6-Tris (Dimethylaminomethyl) phenol (5-10)	90-72-2						
	Terminated polymer (55-65)	-						
9016	Amorphous fumed silica (1-5)	67762-90-7						
	Aliphatic acid (1-5)	30399-84-9						
	Ammonium Polyphosphate (20-30)	68333-79-9						
	<b>Lifeguard Cleaner Disinfectant concentrate</b>							
9016	Ethoxylated Alcohol (5-10)	68439-45-2						
	Sodium Tripolyphosphate (5-10)	-						
	Benzalkonium chloride (1-5)	68989-00-4						
	Sodium EDTA (1-5)	-						
	Perfume (<1)	-						
	Dye (<1)	-						
				0	0.288	Disinfectant	36,38	28

For inspection purposes only. Consent of copyright owner required for any other use.

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
9017	<b>Diverloo</b> Hydrochloric acid (>10)	-	-	0	0.56	Disinfectant	-	-
9018	<b>Power Plus N405</b> Propylene Glycol N-Butyl Ether Alcohol Ethoxylate Xylene sulphonate Sodium silicates Organic Amine Isopropanol	- - - - 67-63-0	-	0	0.56	Cleaning agent	-	-
9019	<b>DAPCO 18-4- Pint A</b> Lead (1-5)	7439-92-1	Toxic	0	0.021	Epoxy Curing agent	33 61	38 45 1 12
9023	<b>Sandblasting media Guyson Saftigrain</b> Aluminium Trioxide (>80) Silicon dioxide (12) Titanium dioxide (1.5)	- - -	Non toxic	0.05	1.335	Sandblasting media	-	-
9024	<b>Honey Bee 76 Cleaner</b>	-	Non toxic	0	0.26	Cleaning agent	-	-
9025	<b>AGC 22 Acrylic Glass Cleaner</b> 1-Methoxy-2-propanol (5-10) Surfactants (<1) De-ionised water (>50) Bactericide/Fungicide (<1)	107-98-2 - - -	-	0.011	0.057	Cleaning agent	-	-
9027	<b>Ammonium Persulphate (100)</b>	7727-54-0	Irritant	0	0.0034	Oxidising agent	-	-
9028	<b>Cleaner ZOK27</b>		Irritant	0	0.011	Cleaning agent	36/38	-

For inspection purposes only  
Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material / Substance <sup>(1)</sup>	CAS Number	Danger <sup>(2)</sup> Category	Amount Stored (tonnes)	Annual Usage (tonnes)	Nature of Use	R <sup>(3)</sup> - Phrase	S <sup>(3)</sup> - Phrase
	ZOK27-25ltr (>90)	-						
9035	Nitrogen gas (100)	7727-37-9	-	0.02	0.52	Aircraft Tyres	-	-
9036	Argon (100)	7440-37-1	-	0.03	0.0247	Welding	-	-

For inspection purposes only.  
Consent of copyright owner required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
1001	<b>14HF Fluorescent Ink</b> Petroleum distillate (Aliphatic) Iron oxide Aerosols contain hydrocarbon propellant		Yes	Bland		7		7	
1005	<b>C28/15</b> Toluene (25-50) Butanol (10-25) Acetone (50-100)		Yes	Characteristic			+ 112		
1006	<b>Methyl Ethyl Ketone</b>		Yes	Pleasant					
1007	<b>Low Aromatic White spirit</b> Xylene (1%) 1,2,4 - Trimethylbenzene (3) Mesitylene (1)						+ 129		
1009	<b>Jet Clean C</b> Sodium nitrite (0.1 - 1) Nonyl phenol ethoxylate 9 moles ethylene oxide (1-5) 2- butoxyethanol (5-15)						8		7

For inspection purposes only. Consent of copyright owner is required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
1011	<b>Isopropyl Alcohol</b> Isopropanol (99.8%)		Yes	Solvent odour					
1012	<b>Phosphoric acid 85%</b>		No	Oodourless		5		5	
1013	<b>Gramos Booth Spray</b> Sodium hydroxide			metalloid					
1014	<b>Alocrom 1000</b> Chromium trioxide (>0.2 - <1) Potassium dichromate (0.2- < 1)					1		1 1	
1015	<b>Ardrox Leeder 1900B</b> Octylphenol ethoxylate (1-5) Sodium hydroxide (0.5-2)								
1018	<b>Silica gel desiccant</b> Silica gel (100%)								
1019	<b>Spotcheck developer</b> Propan-2-ol (50-95) Acetone (5-25) Calcium carbonate (<5) Talc (<5)								

For inspection purposes only. Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
1023	<b>Alochrome 1200</b>  <b>Part A</b> Sodium dichromate (>1-<10) Fluoroboric acid (>1-<10)  <b>Part B</b> Potassium dichromate (>0-<0.2)						1		1
1024	<b>LPS1</b>  Solvent naphtha (Petroleum) 1-methoxy-2-propanol acetate n-propoxypropanol d-limonene Carbon dioxide propellant (aerosol only)								
1028	<b>Freezer Aerosol</b>  1,1,1,2-Tetrafluoroethane (>50) 1,1-Difluoroethane (<50)								
1029	<b>Amberclens</b>  LPG (10-30) Kerosene (1-5) 1-methoxy-2-propanol (1-5) Propan-2-ol (1-5) Ammonia (0-1)						8		7

Consent of copyright owner required for any other use.





IPPC Application Form

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
1035	<b>Gramos Aquarite "C" spray booth additive</b>  Sodium hydroxide (20-50) Disodium metasilicate (20-50) Trisodium phosphate (1-10)								
1038	<b>Peek Metal Polish</b>  Petroleum derived solvent blend								
1039	<b>SKC-S</b>  Petroleum distillate (>70%) Aerosol contain hydrocarbon propellant (<30%)								
1044	<b>Tetrosyl panel wipe</b>  Petroleum distillates (60-100%)								
1047	<b>Ethanol</b>								
1052	<b>Honey Bee 60</b>  Sulfamic acid (8-12)		Yes	Mild					
1063	<b>Sprint Hard Surface Cleaner</b>  Tetrasodium EDTA 2-(2-Butoxyethoxy) ethanol Ethoxylated alcohol		Yes	Characteristic					

Consent of copyright owner required for any other use.  
For inspection purposes only.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	Alkyl aryl sulphonate								
1103	<b>Cadmium LHE SPS 5070</b> Cadmium fluoroborate (10-30) Ethylenediamine (1-5)		No	No characteristic odour		6	+ 12	6	
1104	<b>Chromic convertor SSS3002</b> Sodium dichromate, dehydrate		No	No characteristic odour			1		1
1119	<b>LPS3</b> Severely refined mineral oil Aliphatic hydrocarbon Dipropylene glycol methyl ether		Yes	Fruity		7 7		7 7	
1120	<b>Brush alodine 600</b> Sodium dichromate (>0.2 -<1)			-			1		1
1124	<b>Honey Bee 60T</b> Sulphamic acid (5-10)		Yes	Pleasant					
1129	<b>Copper(II) sulphate, anhydrous</b>		No	Odourless			1		1
1130	<b>Wadis 24</b>			-					

Consent of copyright owner required for any other use.  
For inspection purposes only.



IPPC Application Form

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	Aliphatic hydrocarbons Greases Mineral oils Oxygenous solvent								
1138	<b>White spirit</b> (Naphtha, petroleum)		Yes	Characteristic odour		7		7	
1141	<b>Super Bee 210</b>  Nonidet Le (2-10%) Surfac SX 93 (2-10%) Wetting agent-14 (2-10%) Propylene glycol N-butyl ether (2-10%)		Yes	Pleasant					
1145	<b>CN13 solvent</b>  Naphtha (50-100%)								
1151	<b>Avia wash</b>  Detergent Sodium metasilicate								
2004	<b>Turco 9090</b>  Benzyl alcohol (30-100%) Formic acid (5-15%) Oxalic acid (1-5)		Yes	Sharp					

Consent of copyright owner required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
2005	<b>Turco 6776 LO</b> Benzyl alcohol (15-30%) Combustible aromatic hydrocarbons (>25%) Formic acid (5-15%)		Yes	Characteristic – Acid					
2014	<b>Cee - Bee E-2012A</b> Benzyl alcohol (30-50%) Sodium silicate (1– 5%) Anisole ( 5-15%) Solvent Naphtha heavy aromatic (1-5%)		Yes	Perceptible					
2015	<b>SPC 909 Stripper (Sea to Sky)</b> Aromatic alcohol (20-40) Dihydrogen dioxide (4-7) Corrosion inhibitor blend (0.1-5) Water (30-50)		Yes	Mild					
3003	<b>PR-1422A 1/2 ACCEL</b> Calcium bichromate	14307-33-5		-			+ 112		

For inspection purposes only. Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	N,n-dimethylacetamide	127-19-5							
3004	<b>PR-1422 A2 BASE</b>  Phenol (0 -1) Butan-2-one (2.5-10) Toluene (2.5 -10) Liquid polysulphide polymer (50-100)						+ 112		
3005	<b>PR 1422 B ½</b>  N,N-dimethylacetamide (10-25) Calcium dichromate (10-25) Chromium(VI)compounds (2.5 - 10) Magnesium dichromate (2.5 - 10)			-			1 1 1		1 1 1
3006	<b>PR1422B2ACC</b>  Calcium dichromate N,N-dimethylacetamide			-			1		1
3007	<b>PR - 1431G Type 2 ACC</b>  Calcium dichromate			-			1		1

Consent of copyright owner required for any other use.  
For inspection purposes only.



IPPC Application Form

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odorous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	PR-1431 G Type 2 base Magnesium chromate Toluene Methanol						1 + 112		1
3008	PR - 1436 GA ½  Chromium (VI) compounds N,N-dimethylacetamide Calcium dichromate			-			1 1		1 1
3009	PR - 1436G A-2 Accel  Calcium bichromate N,N dimethylacetamide Octylphenoxypolyethoxyethanol			-			1		1
3010	PR 1436 GB ½ ACC  Chromium(VI) compounds Magnesium dichromate Calcium dichromate N,N-dimethylacetamide			-			1 1 1		1 1 1
3011	PR 1436G Class B2  Calcium bichromate (25 - 50) N,N-dimethylacetamide (25-50)			-			1		1
3014	PR - 1440 B1/2 Base			-					

Consent of copyright owner required for any other use.  
For inspection purposes only.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	(PR-1750 B) Liquid polysulphide polymer (50-100)								
3017	<b>RTV 106 Silicone sealant red</b> Methyltriacetoxysilane (1-5)		Yes	Acetic acid					
3018	<b>RTV 3145 grey adhesive sealant</b> Alkoxysilane (7)			-					
3020	<b>Dow Corning RTV 732 multi purpose sealant</b> Methyltriacetoxysilane (2) Silica, amorphous (9) Ethyltriacetoxysilane (3)		Yes	Acetic acid odour					
3021	<b>RTV 732 multi purpose sealant, white</b> Silica, amorphous (11) Acetoxysilane (4)		Yes	Acetic acid					
3024	<b>RTV 108, Clear</b> Rare earth octoate salts (<1) Vinyltriethoxysilane (<1)		Yes	Acetic acid					

Consent of copyright owner required for any other use.  
For inspection purposes only





IPPC Application Form

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	Octamethylcyclotetrasiloxane (<1) Dimethyl methylvinylsiloxane (60-80) Tetramer treated fumed silica (10-30) Silanol (<1) Polytetrafluoroethylene (<1) Silica gel (5-10) Siloxanes & silicones (<1)								
3025	<b>RTV 102, white</b>		Yes	Acetic acid					
3026	<b>Poly siloxane compound RTV 159 red</b>  Methyltriacetoxysilane (1-5)		Yes	Vinegar					
3039	<b>RTV 157 grey</b>  Methyltriacetoxysilane (1-5)		Yes	Vinegar					
3067	<b>Proseal 870 B 1/2 base PS-870 class B1/2BS</b>  Toluene (2.5-10) Liquid polysulphide polymer (25-50)			-			+ 112		
3135	<b>AV 25 Dinitrol</b>			-					

For inspection purposes only. Consent of copyright owner required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	Naphtha hydrotreated heavy (50-65) Butyl Glycol (1-5)								
3136	<b>PR 1403 GA2 Pt.A</b>  Strontium chromate (<5) Butanone: MEK ((<5) Toluene (<5)			-			1 + 112		1
3138	<b>Micro Ultra 15-3</b>  Unsaturated polyester resin blend Styrene monomer (50) Titanium dioxide (15) Silica (6) Magnesium silicate (2) Sodium borosilicate microspheres (10) Antimony oxide (0.5)		-	-			1  1		1  1
4004	<b>Fastbond 10</b>  Aliphatic petroleum distillate (30-40) Acetone (20-30) Synthetic rubber (10-20) Toluene (<12.5) Phenolic resin (1-10)			-			+ 112		

Consent of copyright owner required for any other use.  
For inspection purposes only.



IPPC Application Form

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	Magnesium oxide (1-5) N-Hexane (<0.8)								
4014	<b>Araldite 252 resin</b>  Bisphenol A; epoxy resin (48-60) Antimony trioxide (2-8)			-			1		1
4020	<b>Loctite Super glue</b>  Ethyl cyanoacrylate (65-95)		Yes	Sharp. Characteristic					
4025	<b>Spray glue/ wuerth</b>  Naphtha (30-50) Dimethyl ether (30-50)		Yes	Characteristic					
4027	<b>Araldite 2012</b>  Bisphenol A epoxy resin 1,4 Butanedioldiglycidylether N(3-Dimethylaminopropyl)		Yes	Slight					
4047	<b>Epocast 50A</b>  Phenol dinonyl (0.01-0.1) Phosphoric acid (10-30) Oxirane (60-90) Silane (0.1-1.0) Benzene,1,1-oxybis-Pentabromo			Slight			5		5

For inspection purposes only. Consent of copyright owner required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	derive (10-30) Benzene,1,1-oxybis-hexabromo derive (0.1-1.0) Benzene,1,1-oxybis-tetrabromo derive (0.1-1) Benzene,1,1-oxybis-tribromo derive (1.0) Methanol								
4051	<b>Araldite LY564</b> Butanedioldiglycidl ether (14-22) Bisphenol A-(epichlorhydrin) (78-86)		Yes	Slight					
4107	<b>Solvent No. 1</b> Toluene (50-60) Heptane (40-50)		Yes	Aromatic solvent odour		+ 112			
4198	<b>461102720</b> <b>Lufthansa (Tesa) Aerosol</b> Propane/butane		-	-					
4206	<b>Epocast 1638</b> Glycidl ether (10-30) Bisphenol A diglycidl ether resin (30-60) Glass, oxide, chemicals (10-30)		Yes	Slight					

For inspection purposes only  
 Consent of complaint owner required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	Siloxanes & silicones, di-me, reaction products with silica (0-10) Ammonium polyphosphate (10-30) 1,2- benzenedicarboxylic acid, dibutyl ester (0-10) Melamine formaldehyde polymer (0-10)								
5001	<b>Aerodur Finish C21/100UVR</b>  Cyclohexanone (2.5-10) n-butyl acetate (2.5-10) 2-methoxy-1-methylethyl acetate (10-25)		Yes	Characteristic					
5002	<b>Aviox HS 5L</b>  N butyl acetate (10 - 25) Polyester polyol (2.5 -10) Cyclohexanone (2.5-10) Xylene (1-2.5)		-	-			+ 129		
5005	<b>Aquadex Semi gloss</b>  Dibutylphthaiate (<2.5) n-methyl-2-pyrrolidone (2.5-10)		Yes	Characteristic					
5006	<b>Aerodex Finish</b>		Yes	Characteristic					

For inspection purposes only  
Consent of copyright owner required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	Xylene (10-25) Ethylbenzene (2.5-10) Propanol (2.5-10) Ethyl acetate (2.5-10) n-butyl acetate (10-25) Hydrodesulphurised heavy naphtha (<2.5)						+ 129 + 79		
5008	<b>Aerodex tint</b>  Xylene (10-25) Ethylbenzene (2.5-10) Propanol (2.5-10) Ethyl acetate (2.5-10) n-butyl acetate (10-25) Hydrodesulphurised heavy naphtha (<2.5)		Yes	Characteristic			+ 129 + 79		
5009	<b>Hardener for aviox</b>  Hexane, 1,6-diisocyanate, homopolymere (25-50) n-butyl acetate (50-100)		Yes	Characteristic					
5010	<b>Hardener S66/14</b>  n-butyl acetate (25-50) Hexane, 1,6-diisocyanato-, homopolymer (25-50)		-	-					

For inspection purposes only. Consent of copyright owner required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	Benzene, 1,3-diisocyanatomethyl-, polymer with 1,6-diisocyanatohexane (10-25) 2-methoxy-1-methylethyl acetate (2.5-10) Xylene (2.5-10) Ethylbenzene (1-2.5) Hexamethylene-di-isocyanate (0-1) m-tolylidene diisocyanate (0-1)						+ 129 + 79		
5011	<b>Hardener S66/22R</b> n-butyl acetate (50-75) Hexane, 1,6-diisocyanato-, homopolymer (25-50) 2-Methoxy-1-methylethyl acetate (2.5-10) Xylene (2.5-10) Ethylbenzene (1-2.5) Hexamethylene-di-isocyanate (0-1)						+ 129 + 79		
5012	<b>Aerodur Arc</b> Propanol (<2.5) Cyclohexanone (<2.5) n-butyl acetate (2.5-10) 2-methoxy-1-methyl ethyl acetate (10-25)		Yes	Characteristic					

For inspection purposes only. Consent of copyright owner required for any other use.



Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
5013	<b>Aerodur CF Primer 37047</b>  Butanol (2.5-10) n-butyl acetate (10-25) 2-methoxy-1-methylethyl acetate (10-25)		Yes	Characteristic					
5014	<b>Epoxy primer CF 37076</b>  Xylene (2.5-10) Ethylbenzene (<2.5) Epoxy resin (25-50) 4-Methylpentan-2-one (2.5-10) n-butyl acetate (10-25) 2-Methoxy-1-methyl ethyl acetate (2.5-10)		Yes	Characteristic			+ 129 + 79		
5015	<b>Epoxy primer 37052(Green)</b>  Strontium chromate (2.5-10) Xylene (2.5-10) Ethylbenzene (2.5-10) Butanol (2.5-10) Butanone (2.5-10) 4-methylpentan-2-one (2.5-10) n-butyl acetate (2.5-10)		Yes	Characteristic			1 + 129 + 79		1
5017	<b>Thinner C 25/90S</b>		Yes	Characteristic					

For inspection purposes only. Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odorous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	Propanol (10-25) Butanone (25-50) 4-methylpentan-2-one (10-25) 2-methoxy-1-methylethyl acetate (25-50)								
5018	<b>Thinner 98064</b>  Butanol (10-25) n-butyl acetate (50-100) 2-methoxy-1-methylethyl acetate (25-50)		Yes	Characteristic					
5020	<b>Peelable coating Ref. 6112</b>  Toluene (30-50) Acetone (20-40)		Yes	Solvent			+ 112		
5025	<b>Corrosion Guard G12E25</b>  Santicizer 141 (2.5-10) Aliphatic solvents (2.5-10) Toluene (10-25) n-butyl acetate (50-100)		Yes	Characteristic			+ 112		
5026	<b>Aerodur Clearcoat UVR</b>  Benzotriazol compound (<2.5) Xylene (10-25)		Yes	Characteristic			+ 129		

Consent of copyright owner required for any other use.  
For inspection purposes only.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	Ethylbenzene (2.5-10) Propanol (<2.5) n-butyl acetate (10-25) 2-methoxy-1- methyl ethyl acetate (10-25)						+ 79		
5032	<b>Aerodur non slip</b>  2-Methoxy-1-methylethyl acetate (10-25) Cyclohexanone (1-2.5) n-butyl acetate (1-2.5) Decanedioic acid, bis (1,2,2,6,6-pentamethyl-4-piperidinyl) ester (0-1)		-	-					
5044	<b>Alexit FST 414-12 Filler</b>  Xylene (15-20) Barium sulphate (10-15) 2-methoxy-1-methylethyl acetate (10-15) Ethylbenzene (5-10) N-butyl acetate (5-10)		Yes	Like aromatic hydrocarbon			+ 129 1  + 79		1
5062	<b>Hardener 92133</b>  Isobutanol (10-30) Benzyl alcohol (5-10) Xylene (30-60)		-	-			+ 129		

Consent of copyright owner required for any other use.  
For inspection purposes only.



IPPC Application Form

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	3-aminopropyl-triethoxysilane (1-5)								
5079	<b>Black rust not spray</b>  Acetone (32-40) Ethanol (5-10) Ethyl 3 ethoxypropionate (5-10) Methyl ethyl ketone (0-5) Xylene (5-10) Propane/isobutene mixture (20-25) Propan-2-ol (0-5)		-	-			+ 129		
5210	<b>Thinner T230</b>  1-methoxy-2-propanol (2-<3) Methanol (2-<3) Propyl alcohol (40-<50)  Ethanol (40-<50)		-	-					
5330	<b>Aerodur arc blue</b>  Propanol (<2.5) Cyclohexanone (<2.5) n-butyl acetate (2.5-10) 2-methoxy-1-methyl ethyl acetate (10-25)		Yes	Characteristic					
5332	<b>BMS10-60T2CB</b>		-	-					

For inspection purposes only. Consent of copyright owner required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	<b>Activator</b> Butyl acetate (2.5-10) Hdi homopolymer (50-100) Hexamethylene-1,6-diisocyanate (0-1) Isocyanate (10-25) Solvent naphtha (2.5-10)								
5347	<b>515x346 Primer</b> Epoxy resin (30-60) Methyl Isobutyl ketone (10-30) Strontium chromate (10-30) Ethylene glycol monoethyl ether acetate (10-30) Titanium dioxide (1-10) Cyclohexanone (<5) Carbon black (<1)		-	-			1		1
5352	<b>Activator 0701/9000</b> 1-methoxy-2-propyl acetate (25-50) Hdl homopolymer (50-100) Hexamethylene -1,6-diisocyanate (0-1) Isocyanate (10-25)		-	-			1		1
5353	<b>Thinner 0434/9000</b>		-	-					

Consent of copyright owner required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	Diacetone alcohol (50-100) Ethanol (10-25) Methanol (0-1) Xylene (25-50)						+ 129		
5354	<b>Activator 0841/9000</b>  Butan-1-ol (2.5-10) Ethanol (25-50) Methanol (1-2.5) Phosphoric acid (2.5-10) Xylene (50-100)		-	-			5 + 129		5
5355	<b>PAC 33</b> 1-methoxy-2-propyl acetate (25-50) Butanone (10-25)		-	-					
5356	<b>P99 Wash Primer</b>  Butan-1-ol (25-50) Butan-2-ol (2.5-10) Butanone (2.5-10) Chromium (VI) compounds (2.5-10) Ethanol (10-25) Methanol (0-1) Phenol (0-1) Zinc potassium chromate (10-25)		-	-			1       1		1       1

For inspection purposes only. Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
5357	<b>Thinner 0433/9000</b> 1-methoxy-2-propyl acetate (25-50) Butanone (25-50) Ethyl acetate (10-25) Toluene (10-25)		-	-			+ 112		
5361	<b>Desothane HS Topcoat (CA8000/B707)</b> Toluene (1-2.5) Xylene, mixture of isomers (1-2.5) Heptan-2-one (10-25)		-	-			+ 112 + 129		
5362	<b>Accelerator Thinner CA8000C2</b> 4-methylpentan-2-one (25-50) Butyl acetate (25-50) Pentane-2,4-dione (10-25)		-	-					
5363	<b>Desothane HS Reducer CA8000C1</b> 4-methylpentan-2-one (25-50) Butyl acetate (25-50) Pentane-2,4-dione (10-25)		-	-					
5369	<b>4360/3031 cf base</b>		-	-					

For inspection purposes only. Consent of copyright owner required for any other use.





IPPC Application Form

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	1-methoxy-2-propyl acetate (25-50) Butanone (10-25)								
5371	<b>CA8000/ BAC7945</b> <b>White</b>  Heptan-2-one (10-25) Pentan-2-one (0-1) Toluene (1-2.5) Xylene (1-2.5)		-	-			+ 112 + 129		
5373	<b>CA8000/BAC708</b> <b>Grey</b>  Heptan-2-one (10-25) Pentan-2-one (0-1) Toluene (1-2.5) Xylene (1-2.5)		-	-			+ 112 + 129		
5375	<b>CA8000/C6631</b>  Butyl acetate (1-2.5) Heptan-2-one ((10-25) Pentan-2-one (0-1) Xylene (2.5-10)		-	-			+ 129		
5378	<b>Metaflex FCR plus</b>  Butan-1-ol (25-50)		-	-					

For inspection purposes only.  
Consent of copyright owner required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	Zinc chromates (10-25) Ethanol (10-25)Butanone (2.5-10) Toluene (2.5-10) Isobutyl acetate (1-2.5) Phenol (0-1) Methanol (0-1) Formaldehyde (0-1)						1  + 112		1
5379	<b>Metaflex FCR plus Hardener</b> Xylene (25-50) Ethanol (25-50) Ethylbenzene (10-25) Butan-1-ol (10-25) Phosphoric acid (2.5-10) Methanol (0-1)		-	-			+ 129  + 79  5		5
5383	<b>Desothane HS Topcoat Grey (CA8000/C9635)</b>  Heptan-2-one (10-25) Pentan-2-one (0-1) Toluene (1-2.5) Xylene (1-2.5)		-	-			+ 112 + 129		
5385	<b>CA8000/C1436</b>  Heptan-2-one (10-25) Pentan-2-one (0-1) Toluene (1-2.5)		-	-			+ 112		

Consent of copyright owner required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129 + 129	List I	List II
	Xylene (1-2.5)								
6002	<b>Hysol EA 934NA</b> Epoxy novolac resin (30-60) Aluminium powder N,N-diglycidyl-4-glycidyl-oxyaniline (10-30) Silica (1-5)		Yes	Slight					
6003	<b>Scotch weld™ AF-163-2 Structural Adhesive Film</b>  Dialkyl amine (40-70) Polyhaloepoxy resin (10-30) Epoxy resin (3-7) Dicyandiamide (3-7) Non-volatile amide (0.5-1.5) N,N-(methyl-1-3,-phenylene) Bis (N,N-dimethylurea) (0.5-1.5) 1,4-Bis (2,3-Epoxypropoxy)methyl (1.5)		No	Odourless					
6008	<b>Hysol EA 9390 QT system</b>  N,N-diglycidyl-4-glycidyl-oxyaniline (30-60) Silica (1-5)		Yes	Characteristic					

For inspection purposes only. Consent of copyright owner required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	Epoxy resin , polyfunctional weight <=700 (30-60)								
6016	<b>BR-127-THF</b> <b>BMS-89 Ty1 Gr.A</b>  2-Butanone (MEK) (58.2) Tetrahydrofuran (17.9) Diacetone alcohol (13.4) Strontium chromate (2) Methanol (0.6) Formaldehyde (<0.0131)		Yes	Ketone odour			1		1
6017	<b>Epocast 1616</b>  Phosphoric acid, triphenyl ester (0-10) Antimony oxide (0-10) Oxirane[(2-methylphenoxy)methyl] (0-10) Epoxy resin (30-60) Oxirane, [[4-(1,1-dimethylethyl)phenoxy]methyl] (0-10) Benzene,1,1-oxybis-pentabromo deriv (0-10) Epoxy resin (10-30) Glass,oxide, chemicals (10-30) Oxirane, mono[(C10-16-alkyloxy)methyl] derives (0-10)		Yes	Slight			5 1		5 1

For inspection purposes only  
 Consent of copyright owner required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
6020	<b>Magnamite fibre carbon fibre BMS-8FT1CL2</b>  Carbon fibre (99) Respirable fibrous carbon dust		No	No distinctive odour					
6022	<b>Scotchweld 2216</b>  Aliphatic polymer diamine (60-65) Aluminium silicate pigment (35-40) Carbon black (0.01-0.1)		-	-					
6026	<b>Scotchweld 3532</b>  Polyester resin (45-55) Polypropylene glycol (20-30) Talc (15-25) Polyoxypropylene triol (1-10) O-diethylbisaniline (1-10) Zeolite (1-10) Beta-(3,4-epoxycyclohexyl) ethyltrimethoxysilane (0.1-0.5)		Yes	Polyester odour					
6028	<b>BMS5-129 TY2 CL2BGRD10</b>  Dichloromethane (0-1) Poly(aromatic) glycidyl ether (60-100)		No	Odourless			+ 62		

For information purposes only. Consent of copyright owner required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
6041	<b>Epon ® Resin 828</b> Epoxy resin (99.9)		-	-					
6051	<b>Fibre glass BMS9-3 Type D</b> Glass wool fibre (99.9)		No	No characteristic odour					
6052	<b>Fibreglass BMS 9-3 TY H7781</b> Glass wool fibre (99.9)		No	No characteristic odour					
6101	<b>GIL 1167</b> Fibrous glass dust (55-75)		Yes	Slight characteristic odour					
6141	<b>Pressure sen. Flashbreaker 1</b> Polyester Silicone		No	Odourless					
6157	Breather/absorb. Airweave NW339HA Polyester fibre		No	Odourless					
6158	<b>Film release/ RF260P3</b> Fluorinated ethylene propylene		No	Odourless					

For inspection purposes only. Consent of copyright owner required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
6162	<b>GIL5242 AL.FL.BRD</b>  Particles – not otherwise regulated, total dust Fibrous glass dust		Yes	Slight characteristic balsa odour					
6173	<b>Patch 8*8 Akro</b>  Acrylate polymer (6-8)		-	-					
6241	<b>BMS5-90 T3 CH</b>  Epoxy resin system (75) Polyamide system (<5) Oxybis (Benzen-sulfonyl) (<5) Formaldehyde (<0.1)		Yes	Epoxy odour					
7001	<b>Dinitrol AV30</b>  Naphtha hydrotreated heavy (35-45) Butyl glycol (1.1 - 1.6) Surfactant (0-2) Inhibitor (10-20)		Yes	Solvent					
7004	<b>Dinitrol AV 8</b>  Naphtha hydrotreated heavy (50-60) Inhibitor (Sulfonate based) (1-5) Inhibitor (Sulfonate based) (10-15)		Yes	Solvent					

For inspection purposes only. Consent of copyright owner required for any other use.



Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
7005	<b>WD-40</b> Naphtha (67) Hydrotreated heavy mineral oil (21) Carbon dioxide (2-3) Non hazardous ingredient (<10)		Yes	Characteristic odour					
7007	<b>Chevron Hyjet IV-A plus</b> Tributyl phosphate (74) Additives including Triarylphosphate (26)		Yes	Sweet odour					
7008	<b>Skydrol LD TY4</b> Butyl diphenyl phosphate Dibutyl phenyl phosphate Tributyl phosphate 2,6 - Di-tert. Butyl p-cresol		Yes	Slight pungent					
7019	<b>Mobil Jet Oil 254</b> Tricresyl phosphate (1-5)		-	-					
7020	<b>Mobil Jet Oil II</b>								

For inspection purposes only  
 Consent of copyright owner required for any other use.

Received  
 Initials  
 26 JAN 2005  
 Environmental Protection Agency  
 + 114

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	Tricresyl phosphate (1-5) 1-naphthalenamiphenyl (1-5)								
7022	<b>Mobil grease 28</b>  Pentaerythritol (1-5%)		Yes	Mild					
7025	<b>Aeroshell fluid 41</b>  Mineral oil		Yes	Characteristic mineral oil		7		7	
7029	<b>Mastinox 6856K</b> <b>Jaune BMS3-27</b>  Xylene, mixture of isomers (2.5-10) Toluene (2.5-10) Strontium chromate (10-25) Barium chromate (10-25) Chromium (VI) compounds (2.5-10)		-	synthetic			+ 129 + 112 1 1 1		1 1 1
7032	<b>Molykote ® G- rapid plus paste/spray</b>  Calcium hydroxide (20) Molybdenum disulphide (25) Graphite (10) Mineral oils (40)		Yes	Slight			1		1
7038	<b>Skydrol 500B</b>		Yes	Slight pungent					

Consent of copyright owner required for any other use.  
For inspection purposes only.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	<b>TY4</b> Butyl diphenyl phosphate Dibutyl phenyl phosphate Trbutyl phosphate 2,6 - di-tert. Butyl p-cresol								
7040	<b>LPS3</b> <b>Aerosol spray can</b> Aliphatic hydrocarbon (70-80) Petroleum oil (10-15) Dipropylene glycol monomethyl ether (2-3) Carbon dioxide propellant (2-3)		Yes	Mild odour					
7042	<b>Aeroshell grease 7</b> Synthetic ester Inorganic clay Fatty acid amides Phenyl-alpha-naphthylamine Additives		Yes	Slight odour					
7062	<b>Super-O-Lube</b> Mineral oil (60-100) Barium soap (10-30)		No	Odourless			1		1
7066	<b>Aeroshell grease 7</b>		Yes	Slight					

Consent of copyright owner required for any other use.



IPPC Application Form

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	Phenyl alpha naphthylamine (<2)								
7076	DC-33 Molykote		-	-					
7095	Hydraulic Skydrol Butyl diphenyl phosphate Dibutyl phenyl phosphate Tributyl phosphate 2,6-di-tert. Butyl p-cresol		Yes	Slight pungent			+ 114		
7102	Castrol Aero 35		Yes	Mild					
7117	Molykote 321R AF coating  Butane (58) Naphtha (10) n-Butyl acetate (10) Molbdenum sulfide (6) Polybutyl titanate (4)		Yes	Solvent			1		1
7125	Molykote 321R  Propane/butane propellant (68) n-Butyl acetate (11) Mineral oils (10) Proprietary polymer (3) Molybdenum disulphide Graphite (2)		Yes	Solvent odour			1		1

For inspection purposes only. Consent of copyright owner is required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
7137	<b>Aeroshell grease 33 BMS 3-33</b>  Zinc C1-C14 Alkyl dithiophosphate (1)		Yes	Slight			1		1
7141	<b>Armna G4789</b>		Yes	Mild					
7146	<b>BP Turbine oil 2197</b>  Aromatic phosphate ester (>90)		Yes	Perceptible odour.					
9002	<b>Kodak Industrex Lo Fixer &amp; replenisher, Part A</b>  Water (45-50) Ammonium thiosulphate (35-40) Acetic acid (1-5) Sodium Thiosulphate (1-5) Sodium sulphite (1-5)		Yes	Ammonia odour					
9003	<b>Developer Industrex Kodak 5055959</b>  Water (85-90) Potassium sulphite (5-10) Hydroquinone (1-5) Potassium acetate; Sodium acetate (1-5)								
9007	<b>Kit AY</b>		-	-					

For inspection purposes only. Consent of copyright owner is required for any other use.

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	<b>Cleaning solvent</b> Hydrotreated heavy naphtha (100)  <b>Surface prep</b> Fluorinated solvent (>99) Halogenated silane (<1)  <b>Polishing slurry</b> Aluminium oxide (15-25) Water (75-85)								
9015	<b>Orcofilm AN-49W</b>  Antimony trioxide (0.1-1.0) Brominated material (0.1-2)		No	Odourless			1		1
9016	<b>Lifeguard cleaner</b>  Ethoxylated alcohol (5-10) Sodium tripolyphosphate (5-10) Benzalkonium chloride (1-5) Sodium EDTA (1-5) Perfume (<1)			-					
9017	<b>Diverloo</b>  Hydrochloric acid (>10)		Yes	Pine odour					
9018	<b>Powerplus</b>		Yes	Characteristic					

Consent of copyright owner required for any other use.  
For inspection purposes only.



IPPC Application Form

Ref. No. or Code	Material/ Substance	TA Luft Class 1, 2 or 3	Odour			EU Lists I and II (Tick and specify Group/Family Number)			
			Odourous Yes/No	Description	Threshold ug/m3	Dangerous Substances Directive 76/464/EEC		Groundwater Directive 80/68/EEC	
						List I	List II + 129	List I	List II
	Propylene glycol-n-butyl ether  Alcohol ethoxylate Xylene sulphonate Sodium silicates Organic amine Isopropanol						+129		
9023	<b>(Sandblasting media)</b> <b>Recycled aluina abrasive and refractory synthetic aggregate.</b>  Al <sub>2</sub> O <sub>3</sub> (>80) SiO <sub>2</sub> (12) TiO <sub>2</sub> (1.5)		No	None					
9024	<b>Honey Bee 76 Cleaner</b>		Yes	Pleasant					
9025	<b>Ardrox 1218</b>  1-Methoxy-2-propanol (5-10) Surfactants (<1)  De-ionised water (>50) Bactericide/fungicide (<1)		Yes	Negligible					
9035	<b>Nitrogen gas</b>		No	None					

For inspection purposes only. Consent of copyright owner required for any other use.



**G.2 A description of the energy used in or generated by the activity must be provided.**

Outline the measures taken to ensure that energy is used efficiently and where appropriate, an energy audit with reference to the EPA Guidance Document on Energy Audits should be carried out.

*The fuel sources used at Shannon Aerospace Limited are Liquefied Petroleum Gas (LPG), kerosene and natural gas. LPG (Liquid Petroleum Gas) is the present form of gas used in the facility; however we have the flexibility to change to natural gas if the need or opportunity arose.*

*Boiler No. 1 runs on Natural Gas, Boiler No.2 on LPG/kerosene and Boiler No. 3 on Kerosene only. Most of the kerosene used onsite is taken off aircraft, and instead of being taken off-site as a waste product is used instead as a fuel source. The use of natural gas, LPG and kerosene at any one time is dependent on fuel prices and the availability of kerosene from aircraft arriving on-site.*

*There are 2 gas meters on site; one which measures gas supply to the boiler house, the other meters the remainder supplied to the main building. Kerosene is monitored by an in-line flow-meter. All of these three meters are connected to the BMS. On a weekly basis a gas/kerosene consumption report is generated. All three boilers are maintained on a regular basis and NOx & SOx levels are monitored to ensure the boilers operate efficiently.*

*Energy consumption is tightly monitored at Shannon Aerospace Limited. For large energy consumption items (i.e. hangar ventilation, heating of the paint hangar) a formal request must be put through the Facilities Department to "enable" the BMS" to be operated. This is done through the Building Management System (which consists of a computer based "outstation" which uses software to control energy consuming plant and equipment, and which monitors and reports on the plant's performance).*

*Looking at energy consumption from year to year in terms of an energy audit is not entirely accurate for Shannon Aerospace Limited as energy usage is determined by number of aircraft present, use of paint hangar, whether hot strips are required, outside weather conditions etc. Because of Shannon Aerospace's work profile typically our energy profile is not comparable on a week by week basis against the previous year*

*A weekly energy consumption report is generated by Facilities at which seasonal variations are checked against the previous year.*

*The general trend for electrical energy consumption is for greater use during winter months than in summer.*

**Past performance**

*Over recent years Shannon Aerospace has carried out energy saving projects throughout the facility including;*



*IPPC Application Form*

- installation of a new smaller compressor.
- replacing eight hundred 250 Watt Metal halide lamps with twin 5ft fluorescent fittings which incorporate reflective diffusers.
- optimising the Building Management System.
- making greater use of night-rate electricity.
- insulation of photocell and hangar lighting etc

*Shannon Aerospace was also highly commended by ESB for the 1997 ETA award. A survey was carried out in 1996 in conjunction with ESB to identify energy saving projects.*

	Electricity kWh	Gas m <sup>3</sup>	Kerosene Litres
2003	6,921,858	128,491	547,939
Equivalent GJ	24,919	24,253	23,178

For inspection purposes only.  
Consent of copyright owner required for any other use.

**SECTION H MATERIALS HANDLING****H.1 Raw Materials, Intermediates and Product Handling.**

All materials should be listed in Tables G.1(i) and G.(ii) of Section G.

Details of the storage conditions, locations within the site, segregation system used and transport systems within the site should be outlined here. In addition, information relating to the integrity, impermeability and recent testing of pipes, tanks and bund areas should be outlined.

*See Tables G.1 (i) and G.1 (ii) of Section G Resources Use and Energy Efficiency for details of Raw Materials, Intermediates and Products Handling.*

*A copy of the latest bund testing carried out in 2003 is attached in Attachment H.1. Also attached are details of correspondence with the EPA in relation to other bund testing.*

*The SAL site contains four separate bunding structures and/or areas specifically provided for the purpose of retaining liquid in the event of a spill or other emergency discharge from vessels stored within.*

*These are identified as follows –*

*Bulk Kerosene Storage Tank Bund*

*Hazardous Material and waste Compound Stores*

*Equipment Room and Paint Mixing Area*

*These bunded areas are discussed individually in the following sections.*

**Bulk Kerosene Storage Tank Bund:**

*The bund to the main site Kerosene Storage Tank is a purpose built above ground reinforced concrete structure. The internal dimensions of the bund are 15.20m x 5.90m x 0.675 m high giving a maximum storage capacity of 60.5m<sup>3</sup>. The walls of the bund are all of 300mm thickness, while the base is 200mm thick.*

*The kerosene tank itself is a horizontal cylindrical steel vessel with a capacity of 50,000Litres. The maximum bund capacity therefore equates to approximately 120% of the storage tank volume. The tank is mounted on two reinforced concrete arch columns at a height of 1200mm above the base of the bund. The bund was constructed in 1996.*

*The base of the bund is sloped to a centrally located drainage gully. A penstock valve located external to the bund facilitates the removal of uncontaminated rain water from within the bund to the surface water drainage system via an oil interceptor. Daily checks of this bund are carried according to Jobcard JC002 (see Attachment H.1) to check for any spills etc.*

**Hazardous Material Stores:**

The hazardous material storage area is a purpose built building provided to store aqueous chemicals (principally solvent based paints and thinners) used in the facility's operations. The building is divided into three separate stores each of which are designated for storage of specified substances. Ramped forklift access into each of the three stores is provided so as to create a shallow containment bund in the floor of each room.

**Waste Compound Stores:**

The waste compound storage area is also a purpose building and is provided to store site generated hazardous waste materials (e.g. waste solvent, stripper waste etc.) prior to shipment off site for recovery/disposal by licenced waste contractors. The building is located immediately adjacent to the hazardous material storage building and is divided into two separate stores.

Both waste compound stores, (of which waste compound store no. 1 is the smaller of the two rooms), have a built-in shallow containment bund within the floor similar to that in the hazardous material stores.

See attachment H.1 for a plan of the layout of both the hazardous material and waste compound storage buildings. The table below summarises the status of each of the rooms within the two buildings.

Room	Floor Area	Min. Height of Bunding	Spill Containment Capacity	Max. Drum Size Stored	Max. Spill Pool Depth
Hazardous Material Store 1	105m <sup>2</sup>	150mm	14,000l	210l	26mm
Hazardous Material Store 2	60m <sup>2</sup>	150mm	7,350l	210l	57mm
Hazardous Material Store 3	44m <sup>2</sup>	150mm	5,200l	210l	11mm
Waste Compound Store 1	37m <sup>2</sup>	150mm	4,125l	25l	14mm
Waste Compound Store 2	67m <sup>2</sup>	150mm	8,325l	210l	35mm

**Equipment Room and Paint Mixing Area:**

The equipment room (originally a sanding room) and paint mixing area is an internal room within the main facility hangar building which incorporates shallow bunds within the floors for spill containment purposes.

The equipment room is a 12.2m x 10.0m with a ramped access which drops approximately 100mm to finished floor level thus creating a containment bund of capacity 12,200lt. The entire floor area and bund edging is finished with a heavy duty ceramic tile. No aqueous chemicals are stored within the equipment storage room. The paint mixing area is also located within the main hangar building and is similar in construction to the equipment room. The room measures 8.2m x 5.2m with a 100mm containment depth, thus giving a 4,300l spill capacity. This room is not used for storage of chemical materials, just for paint mixing etc.

**Integrity Assessment:**

**Bulk Kerosene Storage Tank Bund –**

According to condition 9.2.1 “all bunds shall be tested once every three years”. The last bund testing for the kerosene tank was carried out in July 2003. The results of this bund testing are included in Attachment H.1 The bund test was carried out in accordance with the requirements of Section 9.2 of BS8007: 1987.

**Hazardous Material and Waste Compound Stores –**

All of the five rooms within the hazardous material and waste compound stores contain shallow floor bunds. Following an initial inspection by Project Management in 1997 it was deemed impractical to carry out hydrostatic testing on these for the following reasons:

- A water test would create a potential hazard and significant disruption during the test period
- The maximum design test volume for these floor bunds equates to 120% of the capacity of the largest ten drums stored within. On this basis the maximum test depth of water on any of the five compartments would be approximately 57mm. This test depth is considered insufficient to accurately gauge any potential loss.

Accordingly, assessment of the integrity and watertightness of the floor bunds within the hazardous material and waste compound stores has been based on a detailed visual inspection. This information was supplied to the EPA in 1997, a reply on the 25<sup>th</sup> September 1997 (ref. M69/AK/02) indicates that this fact has been noted and the EPA records have been updated accordingly. This letter is included in Attachment H.1.

**Equipment Room and Paint Mixing Room –**

Hydrostatic tests are not currently carried out on these rooms due to the fact that chemicals are not stored here.

**H.2 Describe the arrangement for the recovery of solid and liquid wastes accepted into or generated by the installation/facility.**

For each waste material, give full particulars of:

- (a) Name
- (b) Description & Nature of waste
- (c) Source
- (d) Where stored and integrity/impermeability of storage areas
- (e) Amount (m<sup>3</sup>) and tonnage
- (f) Period or Periods of generation
- (g) Analysis (include test methods and Q.C)
- (h) European Waste Catalogue Code
- (i) Waste Category per EC Reg. 1774/2002/EC where relevant

Where any waste would be classified as Hazardous Waste as defined in the Waste Management Acts, 1996 to 2003, this should be made clear in the information provided.

Summary Tables H.1(i) and H.1(ii) should also be completed, as appropriate, for each waste. The licence/permit register number of the waste collection agent or disposal/recovery operator should be supplied as well as the expiry date of the relevant permits.

Supporting information should form **Attachment H.1**

***Storage of Waste******Hazardous Waste***

*The waste compound storage area is a purpose building designed to store site-generated hazardous waste materials (principally waste solvent, stripper waste and wash-water) prior to shipment off-site for recovery/disposal by specialist licenced waste contractors. The building is divided into two separate stores.*

*Waste Compound Store 1, which is the smaller of the two rooms, has a built-in shallow containment bund within the floor. Segregation and barrelling of wastes (e.g. sealant tubes, out of date materials etc.) is carried out in this store.*

Waste Compound Store 2, is used the storage of barrelled and labelled waste drums e.g. solvent wastes, empty stripper drums etc.

The compound is fitted with suitable locking devices at the entrance and large signs are displayed which identify the area. Only authorised persons have access to the compound.

Both waste compounds are electrically Ex-rated, which is a requirement for buildings storing flammable substances. The compounds have ramps at entrances which slope inwards. The compounds are bunded as there is a 50mm up-stand all around the internal walls of the store.

The empty barrel compound is an open compound which is fenced off.

Storage of hazardous waste is outlined below:

- All hazardous waste is stored in the Waste Compound
- Time expired materials are stored in the Waste Compound
- Empty un-used barrels are stored in the Empty Barrel Compound

#### Other Waste

There is a waste compactor located outside the hangar building for the storage of non-hazardous waste materials. Non-hazardous materials include:

- Mixed municipal waste
- Paper wrapping unsuitable for recycling
- Cooking oil from canteen (kept on bunded area)

There is a paper/cardboard compactor located outside the hangar building for the storage of paper/cardboard material.

#### Periods of Waste Generation

Most waste (both hazardous and non-hazardous) are generated on a continuous basis and are then stored for collection/disposal at regular intervals depending on the nature of the activity. Municipal waste is disposed of at regular intervals from the waste compactor. Paper/cardboard waste is collected at regular intervals from the paper compactor.

See Attachment H.1 for details of Copies of Licences/Permits held by waste contractors.



Table H.1 (i) WASTE - Hazardous Waste Recovery/Disposal

Waste Material	EWC Code	Main Source <sup>1</sup>	Quantity		On-site Recovery/ Disposal (Method & Location)	Off-site Recovery, reuse or recycling (Method & Location)	Off-site Disposal (Method, Location & Undertaker)
			Tonnes/month	M <sup>3</sup> /month			
Waste wash-water	080119	Aircraft washing after a chemical strip	8.58	-	-	-	Treated. Shannon Environmental Services, Shannon, Co. Clare.
Engine Oil	130899	Engine oil, aviation fuel and skydrol emoved from aircraft	1.79	-	-	Recycled. Atlas Environmental Ltd, Portlaois, Co. Laois	-
Paint Booth Sludge	080114	Paint Booth Sludge from annual emptying out of paint booths	4.22	-	-	-	Treated. Shannon Environmental Services, Shannon, Co. Clare
Waste Solvent	080102	Waste solvent from paint mixtures, cleaning out of paint spray guns.	1.175	-	-	Recycled. Shannon Environmental Services, Shannon, Co. Clare	-
Fluorescent Lamps	200121	Fluorescent lamps replaced in the building	0.029	-	-	Recycled. Irish Lamps Recycling Ltd, Athy, Co. Kildare	-
Waste stripper	080113	Waste stripper (i.e.	1.06	-	-	-	Treated.

		contaminated plastic, sludge and paint)					Shannon Environmental Services, Shannon, Co. Clare.
Mixed Hazardous waste	080199	Contaminated wipes, brushes etc. from aircraft processes	0.86	-	-	-	Incinerated. Shannon Environmental Services, Shannon, Co. Clare.
Waste Alochrome	060199	Waste Alochrome – chromium solution diluted with water	0.33	-	-	-	Treated. Shannon Environmental Services, Shannon, Co. Clare
Adhesives/ Hardeners	080409	Adhesives/ Hardeners – out of date materials		-	-	-	Incinerated. Shannon Environmental Services, Shannon, Co. Clare.
Dinitrol	070104	Dinitrol – coating solution	0.01	-	-	-	Incinerated. Shannon Environmental Services, Shannon, Co. Clare.
Empty Aerosols	200199	Empty Aerosols from workshops, lines etc.	0.1	-	-	-	Incinerated. Minchem, Cork, Co. Cork
Clinical Waste	180101	Clinical Waste from on-site medical clinic	0.01	-	-	-	RD & Associates (Transafe Limited), Limerick, Co.

For inspection purposes only. Consent of copyright owner required for any other use.



							Limerick
Oil/Water Mixture	130507	Oil and Water Mixture from cleaning out of oil interceptors	0.25	-	-	-	Treated. Shannon Environmental Services, Shannon, Co. Clare
Fixer/ Developer	070104	Fixer/Developer – photographic development	0.03	-	-	-	Treated. Shannon Environmental Services, Shannon, Co. Clare
Aeroshell Grease	130899	Aeroshell Grease	0.018	-	-	-	Incinerated. Shannon Environmental Services, Shannon, Co. Clare
Phosphoric acid	060104	Phosphoric acid – used for etching	0.03	-	-	-	Treated. Shannon Environmental Services, Shannon, Co. Clare
Oxygen Generators	160904	Discharged Oxygen Generators removed from aircraft	0.028	-	-	-	Incinerated. Shannon Environmental Services, Shannon, Co. Clare
Sludge	200399	Sludge from cleaning out of ducts	0.626	-	-	-	Treated. Shannon Environmental Services, Shannon,

For inspection purposes only. Consent of copyright owner required for any other use.



IPPC Application Form

Lead/Acid Batteries	160601	Lead/Acid Batteries	0.06	-	-	Recycled. Returnbatt, Co. Kildare	Co. Clare
---------------------	--------	---------------------	------	---	---	-----------------------------------	-----------

A reference should be made to the main activity/process for each waste

For inspection purposes only.  
Consent of copyright owner required for any other use.

Table H.1(ii) WASTE - Other Waste Recovery/Disposal

Waste Material	EWC Code	Main Source <sup>1</sup>	Quantity		On-site Recovery/ Disposal (Method & Location)	Off-site Recovery, reuse or recycling (Method & Location)	Off-site Disposal (Method, Location & Undertaker)
			Tonnes/month	M <sup>3</sup> /month			
Timber Waste	200138	Timber Waste – arising from pallets etc. on-site	3.28	-	-	Recycled. Mr. Binman Ltd., Killmallock, Co. Limerick	-
Steel/ Aluminium	200140	Steel/Aluminium	2.79	-	-	Recycled. Hegarty Metals Ltd, Limerick, Co. Limerick	-
General Waste	200301	General Waste	20.8	-	-	-	Landfilled, Mr. Binman Ltd, Killmallock, Co. Limerick
Primary Household Batteries	160604	Primary Household Batteries	0.73	-	-	Recycled. Returnbatt, Co. Kildare	-
Paper/ Cardboard	200101	Paper/Cardboard	2.79	-	-	Recycled. Limerick Waste Recycling, Co. Limerick	-
Cooking Oil	200125	Cooking Oil from on-site canteen	0.06	-	-	Recycled. Lehane Environmental & Industrial Services, Co. Cork	-

For inspection purposes only. Consent of copyright owner required for any other use.

Canteen and Aircraft Food Waste	200108	Canteen and Aircraft Food Waste	0.13	-	-	-	Landfilled, Mr. Binman Ltd, Kilmallock, Co. Limerick
Empty Plastic Barrels	150102	Empty Plastic Barrels	0.005	-	-	Recycled. Shannon Environmental Services, Shannon, Co. Clare	-
Empty Metal Drums	150104	Empty Metal Drums	0.003	-	-	Recycled. Shannon Environmental Services, Shannon, Co. Clare	-
Laser Printer Cartridges	080399	Laser Printer Cartridges	0.015	-	-	Recycled. The Recycling Appeal, Eurosource Ltd, Dublin	-

A reference should be made to the main activity/process for each waste  
 The method of disposal or recovery should be clearly described and referenced to Attachment H.1

Consent of copyright owner required for any other use.

H.2 Waste disposal by on-site landfilling.

For wastes to be disposed of by landfilling on-site, full details of the disposal site should be submitted (to include *inter alia*, site selection procedures, location maps, geology, hydrogeology, operational plan, containment, gas and leachate management, post-closure care).

Supporting information should form **Attachment no. H.2**

*Attachment No.H.2 not required as waste disposal by on-site landfilling is not carried out by Shannon Aerospace Limited.*

For inspection purposes only.  
Consent of copyright owner required for any other use.

**SECTION I EXISTING ENVIRONMENT & IMPACT OF THE ACTIVITY**

**Describe the conditions of the site of the installation.**

**Provide an assessment of any emissions on the environment, including on an environmental medium other than that into which the emissions are made.**

**Describe, where appropriate, measures for minimising pollution over long distances or in the territory of other states.**

I.1. Assessment of atmospheric emissions

Describe the existing environment in terms of air quality with particular reference to ambient air quality standards.

Provide a statement whether or not emissions of main polluting substances (as defined in the Schedule of S.I. 394 of 2004) to the atmosphere are likely to impair the environment.

Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

**Attachment No I.1** should also contain full details of any dispersion modelling of atmospheric emissions from the activity, where required.

Air Dispersion Modelling Study:

*TMS Consultancy Ltd. carried out a screen dispersion modelling study of VOC emissions from the two stacks in the painting hangar.*

*The aim of this study was to assess maximum ground level concentrations (GLC) under different emission concentration scenarios from each stack. The GLC's have been compared with derived ambient air quality guidelines to assess the significance of each emission scenario in comparison with environmental quality objectives. The modelling results commented upon in the report demonstrate that corresponding ground level concentrations at the emission limits (50 mg/Nm<sup>3</sup>) is predicted to be within applied environmental levels.*

*This report is included in Attachment I.1.*

Description of Surrounding Habitat, Landscape and Topography

*The facility is located to the North-East of Shannon Airport, adjacent to the main runway (-6/24) and the apron area is linked to this by a 280 meters (950 feet) long taxi-way which forms part of the overall development.*

*Shannon Airport is located in a triangle of land of fairly uniform low-lying topography of small hills distributed over level ground, bounded to the south and west by the junction of the estuary of the River Fergus with the main Shannon Estuary, and to the east and north by a part of the Limerick/Ennis road.*

Other Activities and Sensitive Areas within 5km of the Site*Activities surrounding the site:*

Agricultural land surrounds Shannon Aerospace to the west and north. Shannon Airport lies to the south-west of the site. Beyond the airport lies the Shannon Estuary. This is a large estuarine complex consisting of the River Fergus from where it becomes tidal at Clarecastle to where it meets the Shannon Estuary and sweeps inland in an easterly direction as far as Limerick City.

Areas of Environmental Significance:

An investigation of environmentally sensitive areas within a 5km radius of the Hangar site was undertaken to assess possible impacts of air emissions on surrounding habitats. The Shannon Estuary includes a number of Special Protection Areas for Birds (SPA's) such as Poulmasharry Bay, Clanderlaw Bay and the Fergus Estuary. It is also designated as a Special Protection Area. Natural Heritage Area: Site Code 2048 – Fergus Estuary and Inner Shannon, North Shore.

I.2. Assessment of Impact on Receiving Surface Water

Describe the existing environment in terms of water quality with particular reference to environmental quality standards or other legislative standards. Table I.2(i) should be completed

Provide a statement whether or not emissions of main polluting substances (as defined in the Schedule of S.I. 394 of 2004) to water are likely to impair the environment.

Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Full details of the assessment and any other relevant information on the receiving environment should be submitted as **Attachment No I.2.**

Name and description of Receiving Surface Water:

All surface and storm water from the plant is discharged to a surface water drain which discharges to an Aer Rianta R.C culvert to an outer catchment drain, then to tidal sluice and thence to Drumgeely Creek in Shannon Estuary. The Shannon Estuary lies approximately 1km south of the site.

Receiving Water Quality:

The Shannon Estuary has been nominated periodically as part of the EPA's monitoring programme. A series of monitoring samples were taken during 1998 and 2000 in the Shannon Estuary area. The conclusion drawn following analysis of this more recent data was that, overall, there has been no apparent change in the water quality in the Shannon Estuary since 1991-1994. The water quality data collected in the 1998-2000 period are

consistent with the classification of the Shannon Estuary as a non-eutrophic waterbody under the recent assessment of the trophic status of Irish Estuaries and bays.

**Existing or Proposed Uses of the Surface Water Body:**

As the Shannon Estuary is a large saline water body, no potential beneficial use for the estuary in terms of industrial abstraction has been identified. The Estuary is used for shipping, recreation and fishing.

**Sensitivity of Fish/Biological Species to Emissions to Surface Water Body:**

The mouth of the Shannon Estuary has 3 of the 58 areas monitored as part of the shellfish sanitation monitoring programme under EC Directive (91/492/EEC). Two of the three sites show that the quality of the shellfish is excellent with a classification A – can be collected for direct human consumption. The other site shows that purification for 48hours is necessary.

**Assessment of Impacts of Emissions on the Receiving Waters:**

The single surface water discharge point from the Shannon Aerospace Limited facility, consisting of surface/storm water runoff from hardstanding and roof surfaces at the site, has minimal adverse impact upon the water quality of the Estuary due to its significant assimilative capacity. This operation will not affect the aquatic habitats in the Estuary.

Potential contamination of the surface storm/runoff by accidental spillages is minimised through the segregation of plant operations from the surface water collection system, interceptors and the presence of bunding structures. These bunding structures are described in Section H.2.

Also surface water run-off from buildings and the run-way is discharged via oil interceptors to a culvert and thence to a stream. All necessary precautions are taken to ensure that pollution of the surface water does not occur.





Table I.2 (i) SURFACE WATER QUALITY

(Sheet 1 of 2) Monitoring Point/Grid Reference SW1

Parameter	Results (mg/l)				Sampling method <sup>2</sup> (grab, drift etc)	Normal analytical range	Analysis method / technique
	Date		Date				
pH	5/10/04	7.05	2/11/04	7.08	Grab	6-9	pH electrode /meter
Temperature							
Electrical conductivity EC							
Ammonical nitrogen NH <sub>4</sub> -N							
Chemical Oxygen Demand	5/10/04	19	2/11/04	9	Grab		Standard Method
Biochemical Oxygen Demand							
Dissolved Oxygen DO							
Calcium CA							
Cadmium Cd							
Chromium Cr							
Chloride Cl							
Copper Cu							
Iron Fe							
Lead Pb							
Magnesium Mg							
Manganese Mn							
Mercury Hg							

For inspection purposes only. Consent of copyright owner required for any other use.

**SURFACE WATER QUALITY (Sheet 2 of 2)**

Parameter	Results (mg/l)				Sampling method (grab, drift etc)	Normal analytical range	Analysis method / technique
	Date		Date				
Nickel Ni							
Potassium K							
Sodium Na							
Sulphate SO <sub>4</sub>							
Zinc Zn							
Total alkalinity (as CaCO <sub>3</sub> )							
Total organic carbon TOC							
Total oxidised nitrogen TON							
Nitrite NO <sub>2</sub>							
Nitrate NO <sub>3</sub>							
Faecal coliforms ( /100mls)							
Total coliforms ( /100mls)							
Phosphate PO <sub>4</sub>							

Consent of copyright owner required for any other use.  
For inspection purposes only.

I.3. Assessment of Impact of Sewage Discharge.

Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Full details of the assessment and any other supporting information should form **Attachment No I.3.**

***Effluent Emission Monitoring:***

*A sample from the final effluent discharged at the pumping station (S-1) is sampled bi-monthly by an external laboratory to assess compliance with the effluent emissions conditions specified in the IPC licence.*

***Assessment of Impact of Sewage Discharge:***

*Currently, the wash-water from the aircraft stripping process is collected in a sump, transferred to IBC's and taken off-site by a licensed waste disposal contractor. This means that this type of waste is never released to drain by Shannon Aerospace.*

*The effluent from the plant comprises mostly of tech washings from aircraft and domestic effluent generated by the plant staff. This is described in Attachment E.3. The effluent is discharged to a Clare County Council sewer (formerly a SFADCo sewer), where it is conducted to the wastewater treatment plant at Tradaree Point. The treated water is discharged from the wastewater treatment plant to the Shannon Estuary. The single wastewater discharge point from the Shannon Aerospace Limited facility would not impact upon the water quality of the Shannon Estuary due to its significant assimilative capacity.*

I.4 Assessment of impact of ground/groundwater emissions

Describe the existing groundwater quality. Tables I.4(i) should be completed. Give summary details and an assessment of the impacts of any existing or proposed emissions on the ground (aquifers, soils, sub-soils and rock environment), including any impact on environmental media other than those into which the emissions are to be made. This includes landspreading, land injection etc.

Full details of the assessment as well as a hydrogeological report (to include meteorological data and water quality, and aquifer classification, vulnerability, source and resource identification and zonation should be included in **Attachment No I.4.** A soils survey must also be included where emissions are directly onto or into soils. All vulnerable (as a result of ground emissions) surface water bodies must be identified.

Landspreading of Agricultural/Non Agricultural Wastes





*IPPC Application Form*

---

Tables I.4(ii) and I.4.(iii) should be complete where applicable. Further information is available in the Application Guidance Document.

*There are no emissions to ground*

*For inspection purposes only.  
Consent of copyright owner required for any other use.*



Table I-4 (i) GROUNDWATER QUALITY

(Sheet 1 of 2) Monitoring Point/Grid Reference \_\_\_\_\_ Not Applicable

Parameter	Date	Date	Date	Date	Date	Analysis method / technique
pH						
Temperature						
Electrical conductivity EC						
Ammonical nitrogen NH <sub>4</sub> -N						
Dissolved Oxygen DO						
Residue on evaporation (180°C)						
Calcium Ca						
Cadmium Cd						
Chromium Cr						
Chloride Cl						
Copper Cu						
Cyanide Cn, total						
Iron Fe						
Lead Pb						
Magnesium Mg						
Manganese Mn						
Mercury Hg						
Nickel Ni						
Potassium K						
Sodium Na						

For inspection purposes only. Consent of copyright owner required for any other use.

**GROUNDWATER QUALITY (Sheet 2 of 2)**

Parameter	Results (mg/l)				Sampling method (composite, dipper etc.)	Normal analytical range	Analysis method / technique
	Date	Date	Date	Date			
Phosphate PO <sub>4</sub>							
Sulphate SO <sub>4</sub>							
Zinc Zn							
Total alkalinity (as CaCO <sub>3</sub> )							
Total organic carbon TOC							
Total oxidised nitrogen TON							
Arsenic As							
Barium B							
Fluoride F							
Phenol							
Phosphorus P							
Selenium Se							
Silver Ag							
Nitrite NO <sub>2</sub>							
Nitrate NO <sub>3</sub>							
Faecal coliforms ( /100mls)							
Total coliforms ( /100mls)							
Water level (m OD)							

Consent of copyright owner required for any other use.  
For inspection purposes only.

Table I.4 (ii) LIST OF OWNERS/FARMERS OF LAND

Land Owner	Townlands where landspreading	Map Reference	Fertiliser P requirement for each farm
Not Applicable			* NMP must take account of on-farm slurry

Total P requirement of the client list \_\_\_\_\_

For inspection purposes only.  
Consent of copyright owner required for any other use.



**Table I.4 (iii) LANDSPREADING**

Land Owner/Farmer Not Applicable

Map Reference \_\_\_\_\_

Field ID	Total area (ha)	(a) Usable Area (ha)	Soil P Test mg/l	Date of P test	Crop	P Required (kg P/ha)	Volume of on-Farm Slurry (kg P/ha)	Estimated P in On-Farm Slurry (kg P/ha)	(b) Volume to be Applied (m <sup>3</sup> /ha)	P Applied (kg P/ha)	Total Volume of imported slurry per plot (m <sup>3</sup> )

For inspection purposes only. Consent of copyright owner required for any other use.



I.5 Ground and/or groundwater contamination

Summary details of known ground and/or groundwater contamination, historical or current, on or under the site must be given.

Full details including all relevant investigative studies, assessments, or reports, monitoring results, location and design of monitoring installations, plans, drawings, documentation, including containment engineering, remedial works, and any other supporting information should be included in **Attachment No I.5**.

*Attachment No. I.5 is not required as there are no known ground and/or groundwater contamination. .*

I.6 Assessment of the environmental impact of on-site waste recovery and/or disposal.

Describe the arrangements for the prevention and recovery of waste generated by the activity.

Give details, and an assessment of the impact of any existing or proposed on-site waste recovery/disposal on the environment, including environmental media other than those into which the emissions are to be made.

This information should form **Attachment No I.6**.

*Attachment No. I.6 is not required as there are no on-site waste recovery or disposal activities carried out.*

I.7 Noise Impact.

Give details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

Ambient noise measurements

Complete Table I.7(i) in relation to the information required below:

- (i) State the maximum Sound Pressure Levels which will be experienced at typical points on the boundary of the operation. (State sampling interval and duration)
- (ii) State the maximum Sound Pressure Levels which will be experienced at typical noise sensitive locations, outside the boundary of the operation.

(iii) Give details of the background noise levels experienced at the site in the absence of noise from this operation.

Prediction models, maps, diagrams and supporting documents, including details of noise attenuation and noise proposed control measures to be employed, should form **Attachment No I.7.**

*Shannon Aerospace contributes no significant noise to the surrounding environment. Although there are a number of significant noise sources within the site, these are located in the centre of the plant and are almost completely surrounded by hangar doors and other buildings. The primary source of noise affecting the noise sensitive locations in the area appears to be the main road.*

*The exception to this occurs only during engine test runs. The table indicates sound levels sound levels experienced at surrounding locations during this operation. The test duration is approximately 40 minutes and full power is applied for only 10 minutes during the test. Also a run-up mound is in place at the engine run-up area to reduce noise levels. See Attachment I.7 for a map of the Engine run-up area.*

*It should also be noted that Shannon Aerospace operates in close proximity to Shannon Airport. Noise monitoring carried out in the past (see Attachment E.5.1) indicates that the noise climate in the immediate vicinity of Shannon Aerospace Limited, is dominated over much of the time by heavy air traffic and road traffic. Although there are a number of noise sources identified within the site, these are located in the centre of the plant and are almost completely surrounded by other buildings. The primary source of noise affecting the noise sensitive locations in the area appears to be the main road.*

**Table I.7 (i) AMBIENT NOISE ASSESSMENT**

*Third Octave analysis for noise emissions should be used to determine tonal noises*

	National Grid Reference	Sound Pressure Levels		
	(5N, 5E)	L(A) <sub>eq</sub>	L(A) <sub>10</sub>	L(A) <sub>90</sub>
<b>1. SITE BOUNDARY</b>				
Location 1: SB1 (Day) Due north of facility		49	50	47
Location 2: SB2 (Day) NE of facility, near entrance gate		72	58	42
Location 3: SB3 (Day) At site boundary on airside of engine run-up mound		59	55	38
Location 4: SB4 (Day) At perimeter SW of site		47	47	37
Location 5: SB4 (Day) At NW corner of site (close to sensitive location A)		54	56	41
<b>2. NOISE SENSITIVE LOCATIONS</b>				
Location 1: NSL A (Day)		55	53	40
Location 2: NSL A (Night)		50	39	25
Location 3:				
Location 4:				

**Note:** All locations should be identified on accompanying drawings.

**I.8 Environmental Considerations and BAT**

**Describe in outline the main alternatives, if any, to the proposals contained in the application.**

Describe any environmental considerations which have been made with respect to the use of cleaner technologies, waste minimisation and raw material substitution.

Describe the measures proposed or in place to ensure that:

- (a) The best available techniques are or will be used to prevent or eliminate or, where that is not practicable, generally reduce an emission from the activity;
- (b) no significant pollution is caused;
- (c) waste production is avoided in accordance with Council Directive 75/442/EEC of 15 July 1975 on waste; where waste is produced, it is recovered or, where that is technically and economically impossible, it is disposed of while avoiding or reducing any impact on the environment;
- (d) energy is used efficiently;
- (e) the necessary measures are taken to prevent accidents and limit their consequences;
- (f) the necessary measures are taken upon definitive cessation of activities to avoid any pollution risk and return the site of operation to a satisfactory state.

Supporting information should form **Attachment No I.8**.

*Environmental improvements relating to cleaner technologies, waste minimisation and raw material substitution are influenced greatly by aircraft manufacturers and their safety and performance requirements regarding aircraft maintenance. Consequently the scope for raw material substitution and waste minimisation is limited. A number of improvements in the industry, deemed acceptable by the originating aircraft manufacturers, have been introduced in recent years. These would include the increased use of high-solids based paints. In addition, during the paint stripping process, the use of phenol and methylene chloride has been phased out during paint stripping operations. During application of paint in the hangar, electrostatic paint spray guns are used which ionise the paint spray thereby reducing overspray and minimising quantities of paint materials used.*

- a) *Ensure that Best Available Techniques are or will be used to prevent or eliminate, or, where that is not practicable, generally reduce an emission from an activity:*
  - *Shannon Aerospace Limited now operates an in-house restriction on a chemical stripper Turco 5873 (which contains methylene chloride). This restriction on the use of methylene chloride based strippers means that VOC emissions are reduced. The main chemical stripper in use (Turco 6776 LO – which contains formic acid) is known as an “environmentally advantaged” product as it is less harmful to the environment than previous stripper types.*



- *Electrostatic spray application for paint materials. Shannon Aerospace Limited has favoured the use of electrostatic spray guns since the commencement of operations. This minimises overspray and therefore reduces VOC emissions.*
  - *High solids topcoats – over the last few years Shannon Aerospace Limited has switched over to using this type of paint in an effort to reduce VOC emissions and as part of a BAT approach to the Solvents Directive.*
  - *Shannon Aerospace Limited has worked together with Akzo Nobel (an aircraft paint manufacturer), Lufthansa Technik Painting Shannon and FLS Aerospace to develop an Irish BAT note in relation to aircraft painting etc. This is included in Attachment E.1.A*
- b) *Ensure no significant pollution is caused: Legislation, BAT are followed at all times.*
- c) *waste production is avoided in accordance with Council Directive: There are limited opportunities for recycling in the aircraft painting industry as the industry is highly regulated and all chemicals used are specified by the airframe manufacturers. The very nature of the business means that waste production cannot be avoided e.g. stripper waste, wash-water etc. Due to potential contamination and damage to aircraft structures and systems, solvent cannot be recycled for use on the aircraft. However, there are the following opportunities for re-use – gun-cleaning (a small percentage is re-used for gun-cleaning purposes) & the vast majority of waste solvent is currently sent off-site for re-use.*
- d) *Ensure energy is used efficiently. Energy consumption is tightly monitored at Shannon Aerospace Limited. Heating of the hangar, extraction of hangar and workshops is only turned on when required. This is done through the Building Management System (which consists of a computer based “outstation” which uses software to control energy consuming plant and equipment, and which monitors and reports on the plant’s performance). This is controlled by the Facilities Department. See Attachment F for a copy of the Resource Consumption and Event Monitoring Procedure.*
- e) *Ensure the necessary measures are taken to prevent accidents and limit their consequences: There is an emergency response procedure in place for dealing with environmental incidents/emergencies. More information on accident prevention etc. is included in Section J.*
- f) *Ensure the necessary measures are taken upon definitive cessation of activities to avoid any pollution risk and return the site of operation to a satisfactory state: A Residuals Management Plan is included in Attachment K.*

**SECTION J ACCIDENT PREVENTION & EMERGENCY RESPONSE**

Describe the existing or proposed measures, including emergency procedures, to minimise the impact on the environment of an accidental emission or spillage.

Also outline what provisions have been made for response to emergency situations outside of normal working hours, i.e. during night-time, weekends and holiday periods.

Describe the arrangements for abnormal operating conditions including start-up, leaks, malfunctions or momentary stoppages.

Supporting information should form **Attachment No J**.

*A copy of Environmental Preparedness and Response Procedure is enclosed in Attachment J.*

*The company has seven oil interceptors on site which are located as follows:*

- a) Kerosene Gas Tank (leading to SW1 culvert)*
- b) Near taxiway, in front of Bay 1 (leading to SW1 culvert)*
- c) In front of the painting hangar ( leading to S-1 pumping station)*
- d) Near engine run-up area (leading to SW1 culvert)*
- e) Loading/unloading area; near the waste stores (leading to SW1 culvert)*
- f) GSE workshop (leading to SW1 culvert)*
- g) At front of building, opposite M5 hangar (leading to SW1 culvert)*

*The interceptors are sized to take any substantial spillage from aircraft.*

*Spill or Emergency Containment Measures and Structures:*

*The following structures are in place for the containment of accidental spillages.*

- All delivery, loading and transport areas at the facility are covered by concrete hardstanding. Interceptors are also in place throughout the site. Inside the main plant building the floor is lined with an industrial covering.*
- All processes carried out at the facility that utilise hazardous materials are contained inside the workshops and hangars. Spillages from inside the plant buildings are separated from the surface water system*
- Spillages can be mopped up easily using a readily available spill kit which consists of an absorbent material. The waste would then be contained and disposed of as hazardous waste. Adequate concrete ground cover to prevent egress of spilled substances to ground is provided.*
- Surface water run-off from buildings and the run-way is discharged via oil interceptors to a culvert and thence to a stream. All necessary precautions are taken to ensure that pollution of the surface water does not occur. Surface water streams are maintained in strict segregation from all process water streams.*

Provision for Containment and On-site Storage of Water for Firefighting:

While bunding of the main areas involved in the storage and use of potentially hazardous substances is provided at the facility, there are no specific provisions for the containment of contaminated firewater on-site. In the event of a fire contained within the hangar, all liquid wastes – likely to be largely water from fire fighting – will tend to flow into the gulleys and channels and be directed, via oil interceptors, to the Clare County Council sewage system. If a fire broke out in the painting hangar (P1 & M5) this water would be contained within the building in the underground ducts situated here. Run-off of contaminated firewater to the surface water drain system is therefore not anticipated and a firewater retention facility will not be required.

A study was carried out in late 2002 to determine if Shannon Aerospace Limited required fire-water retention facilities. This study was conducted as per the EPA Draft Guidance Note to Industry on the Requirements for Fire-water Retention Facilities. This study determined that Shannon Aerospace Limited is not covered under Section I or II of Appendix A of the Draft Guidance Note for the following reasons:

- A review of the main materials stored and used on site was carried out. Various products used in SAL contain R50, R51, R52 and R53 compounds. These are used in small quantities only and consequently only small amounts of these are stored on site. The maximum combined volume of such materials stored on site at any one time is not expected to exceed 1/10<sup>th</sup> tonne.
- The foul sewer and process water discharge point at SAL leads to an effluent treatment plant operated by Clare County Council, thus SAL cannot discharge these effluent types to receiving waters. Also SAL's process effluent is contained in ducts.
- At present, the wash-water from the paint hangar is not discharged to drains, but is sent to an approved waste contractor for treatment. This procedure ensures that SAL does not discharge polluting substances.

Catchment Areas for Surface Water Collection System:

The total catchment area for the surface water collection system is approximately ... This can be divided into the following:

- 1) 21,600 m<sup>2</sup> from the roof areas
- 2) 3,640 m<sup>2</sup> from the new building
- 3) 14,300 m<sup>2</sup> from the site road and car park
- 4) 18,000 m<sup>2</sup> from the concrete hardstanding paved areas.

Drawing of the Stormwater and Process/Foul Drainage System:

A map is attached in Attachment J which details the stormwater and process/foul drainage systems.

Transport of Materials within the site:

Materials and chemicals for use in the workshops and hangar are delivered from the material stores. The delivery of chemicals from their storage locations to the various process areas and the paint hangar are carried out by trained Stores staff.





IPPC Application Form

Potential Points of Contamination:

Surface Water -

Potential points of contamination of the surface water collection system at Shannon Aerospace Limited are mainly related to the any accidental spillages that may result from the transportation and storage of materials on-site. To minimise such a risk, containment measures of all potential areas of contamination have been put in place and procedures developed to deal with such an occurrence.

An Emergency Response Team (ERT) is equipped and trained to deal with fires and large spills. Spill kits are available for use with smaller spills of oils or chemicals.

Emergency Situations outside of normal working hours:

An out-of-hours system operates in the facility. After 5pm, all alarms etc. from the BMS are transferred to Security. There is an on-call system in place which is used to call in members of the Facilities Department as required.

Public liability Insurance:

Shannon Aerospace has adequate Public Liability Insurance in place in the event of a pollution incident. Copies of the relevant documentation are included in Attachment J.

For inspection purposes only.  
Consent of copyright owner required for any other use.

**SECTION K REMEDIATION, DECOMMISSIONING, RESTORATION & AFTERCARE**

Describe the existing or proposed measures to minimise the impact on the environment after the activity or part of the activity ceases operation, including provision for post closure care of any potentially polluting residuals.

Supporting information should be included as **Attachment No. K**.

*In the event of the activity ceasing operations, the following will apply - Stocks of raw materials, service materials and spare parts will be reduced to a minimum prior to decommissioning. Remaining materials will be disposed of as follows:*

- a) Paints, strippers and solvents will be transferred to other locations within the Lufthansa Technik Group.*
- b) Paint beyond its approved shelf life will be disposed of by a licenced waste disposal contractor*
- c) Other raw materials/service materials will be removed from the plant for re-use.*
- d) Spare parts will be removed to other plants within Lufthansa Technik Group or returned to manufacturers.*
- e) Thermal oil systems will be drained and the oil will be removed from the plant for recycling*
- f) Plant and machinery will be either left on the site in running order or will be removed from the site to be used within the Lufthansa Technik Group, to be sold or to be recycled/scrapped.*
- g) Where material is to be disposed of as waste, this disposal will be undertaken by licenced waste contractors approved by the Environmental Protection Agency.*

**SECTION L STATUTORY REQUIREMENTS**

Indicate how the requirements of Section 83(5)(a)(i) to (v) and (vii) to (x) of the EPA Acts, 1992 and 2003 shall be met, having regard, where appropriate, to any relevant specification issued by the Agency under section 5 (3) of the Act and the reasons for the selection of the arrangements proposed.

Indicate whether or not the activity is carried out on, or may be carried out on, or is located such that it is liable to have an adverse effect on -

- (a) a site placed on a list in accordance with Chapter 1 of SI 94 of 1997, or
- (b) a site where consultation has been initiated in accordance with Article 5 of the EU Habitats Directive (92/43/EEC), or

Indicate whether or not the activity is liable to have an adverse effect on water quality in light of S.I. No. 258 of 1998 (Local Government (Water Pollution) Act, 1977 (Water Quality Standards for Phosphorus) Regulations, 1998).

Indicate whether any of the substances specified in the Schedule of the EPA (Licensing)(Amendment) 2004 are discharged by the activity to the relevant medium.

**A Habitats**

- (a) *The activity is not carried out on, or located such that is liable to have an adverse effect on the integrity of a site of community importance as listed in Chapter 1 of SI 94 of 1997.*
- (b) *The activity is not carried out on, or located such that it is liable to have an adverse effect on a site where consultation has been initiated in accordance with Article 5 of the EU Habitats Directive (92/43/EEC).*
- (c) *The activity is not carried out on, or located such that is liable to have an adverse effect on the integrity of a European site as described in Article 2 of the SI 94 of 1997.*

**B Phosphorous Regulations**

*The activities undertaken at the facility will not result in effluent containing Phosphorous being discharged to waters. The activity will therefore not have an adverse effect on water quality in the light of S.I. No. 258 of 1998.*

**C Section 83(3) of PEA Act 1992 and 1993**

- (a) *Air Quality Standards (AQS) as specified under Section 50 of the Air Pollution Act 1987 are contained in S.I. No. 244 of 1997 and concern sulphur dioxide, suspended particulates, lead and nitrogen dioxide only. The emission from the stacks discharges suspended particulates. Air dispersion modelling of this emission has been undertaken and indicates that the maximum emission has*

*no significant environmental effect and would not result in any breach of relevant Air Quality Standards.*

*(c) To avoid duplication, it is more convenient to include the subject of this paragraph in the following paragraph (c) as many of the standards/limit values were made on foot of this EU Directive.*

*(d) The following Regulations were reviewed:*

- S.I. No. 294 of 1885 Cadmium Discharges*
- S.I. No. 55 of 1986 Mercury and hexachlorocyclohexane discharges*
- S.I. No. 348 of 1993 Aldrin, dieldrin, endrin, isodrin, hexachlorobenzene, hexachlorobutadiene and chloroform discharges*
- S.I. No. 294 of 1985 1,2-dichloroethane, perchloethylene, trichlorobenzene and trichloroethylene discharges*
- S.I. No. 32 of 1994 Carbon Tetrachloride, DDT and pentachlorophenol discharges*
- S.I. No. 41 of 1999 Protection of Groundwater Regulations*

*The effluent discharged from the facility does not contain any of the substances listed in*

*There are no direct emission to groundwater and inadvertent indirect emission are prevented by bunding of storage tanks, segregation and spillage preventative measures for chemical and waste storage areas, inspection of the integrity of wastewater drains and the use of concrete hardstandings for loading, delivery and courtyard areas. Thus S.I. 41 of 1999 will be adhered to.*

*All solid process wastes which are disposed of off-site are fully documented and controlled, using licensed waste contractors, in full compliance with the appropriate regulations*

*The emissions from the activities at the facility will comply with, or will not result in the contravention of, any relevant standard including any standard for an environmental medium prescribed under regulations made under the European Communities Act, 1972, or any other enactment.*

*(e) There are no relevant noise control regulations under Section 196 of the EPA Act (Noise Regulations S.I. No. 179 of 1994 refers to complaints).*

*(f) Significant Environmental Pollution – the emissions from the facility will not result in any significant environmental pollution.*

*Air Emission Modelling, as discussed in Section I.1, has indicated that air emissions would result in no significant environmental pollution.*

## IPPC Application Form

---

*In Section I.2 the impact of storm waters discharging to the Shannon Estuary is considered. This data indicates that the emission does not have any significant impact on the receiving water.*

*In Section I.3 the impact of emissions of trade and domestic effluent to the public sewer is considered. This data indicates that the facilities effluent emissions to public sewer, does not have any significant environmental impact.*

*A survey of noise emissions as described in Section E.5 indicates that noise from the activities at Shannon Aerospace Limited would not result in any significant noise pollution at noise sensitive locations adjacent to the site.*

*For inspection purposes only.  
Consent of copyright owner required for any other use.*





## IPPC Application Form

### Fit and Proper Person

The PoE Act in Section 83(5)(xi) specifies that the Agency shall not grant a licence unless it is satisfied that the applicant or licensee or transferee as the case may be is a fit and proper person. Section 84(4) of the PoE Act specifies the information required to enable a determination to be made by the Agency.

- Indicate whether the applicant or other relevant person has been convicted under the PoE Act, the Waste Management Act 1996, the Local Government (Water pollution) Acts 1977 and 1990 or the Air Pollution Act 1987.
- Provide details of the applicant's technical knowledge and/or qualifications, along with that of other relevant employees.
- Provide information to show that the person is likely to be in a position to meet any financial commitments or liabilities that may have been or will be entered into or incurred in carrying on the activity to which the application relates or in consequence of ceasing to carry out that activity.

Supporting information should be included as **Attachment No L** with reference to where the information can be found in the application.

*The company has never been convicted of any offences under the PoE Act, the Waste Management Act 1996, the Local Government (Water pollution) Acts 1977 and 1990 or the Air Pollution Act 1987.*

*The environmental organisation structure (refer to Attachment C) consists of the Chief Executive Director, Head of Engineering and Planning, Facilities Manager and Environmental Engineer. The above are suitably qualified and experienced for their assignments. The company is satisfied that the above are technically competent and experienced for their assignments and conversant with all relevant statutory requirements.*

*Due provision for commitments or liabilities, subject to the respective feasibility and or economic considerations of such matters is an integral constituent of the company's operating philosophy. The company has adequate insurance in place to ensure that financial commitments or liabilities are covered in the event of the company ceasing operations; this topic is covered in Section K. A Residuals Management Report is included in Attachment K. Also, Shannon Aerospace has adequate environmental liability insurance in place in the event of a pollution incident. A copy of this certificate is included in Attachment J.*

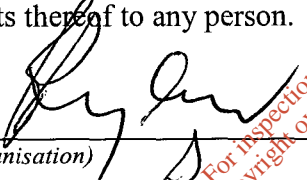
**SECTION M DECLARATION**

**Declaration**

I hereby make application for a licence / revised licence, pursuant to the provisions of the Environmental Protection Agency Acts, 1992 and 2003 and Regulations made thereunder.

I certify that the information given in this application is truthful, accurate and complete.

I have no objection to the provision by the Agency or local authority of a copy of the application or parts thereof to any person.

Signed by:  Date: 24 Jan 2005  
(on behalf of the organisation)

Print signature name: PAMICK RYAN

Position in organisation: Head of ENGINEERING & PLANNING

Company stamp or seal: \_\_\_\_\_

