

**Emissions of Volatile Organic Compounds from Organic Solvents Regulations  
2002**

**(S.I. 543 of 2002)**

**Compliance Report**

Name and address of the operator of the installation<sup>1</sup>:

Address of the installation (if different to operator address)<sup>2</sup>:

**1 SUMMARY**

COMPLETE THIS SUMMARY SECTION ONLY *AFTER* COMPLETING ALL OTHER RELEVANT SECTIONS OF THE REPORT

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**1.1 Installation Details**

Type of activity (or activities)<sup>3</sup>:

Type of installation<sup>4</sup>:    new installation ☐        existing installation ☐

Reason for reporting<sup>5</sup>:    annual reporting ☐    substantial change ☐    new installation ☐

Register number<sup>6</sup>:

Competent authority<sup>7</sup>:

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**1.2 Compliance or otherwise of this Installation with the Regulations**

In accordance with article 24(1) of the Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (S.I. 543 of 2002), the undersigned Accredited Inspection Contractor hereby declares that the above named installation is<sup>8</sup>

- ☐ in compliance with the requirements of the Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (S.I. 543 of 2002), subject to the following conditions and recommendations:
- ☐ not in compliance with the requirements of the Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (S.I. 543 of 2002).The undersigned Accredited Inspection Contractor makes the following recommendations in relation to this facility:

**1.2.1 Conditions<sup>9</sup>:**

**1.2.2 Recommendations<sup>10</sup>:**

Accredited Inspection Contractor signature:

Date of compliance report:

Accredited Inspection Contractor name (print)<sup>11</sup>:

Accredited Inspection Contractor body<sup>12</sup>:

Accredited Inspection Contractor NAB ref. no<sup>13</sup>:

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**1.3 Summary of Requirements for this Installation and Compliance or  
Otherwise with these Requirements<sup>14</sup>**

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## 2 RELEVANT ACTIVITIES

The activity or activities relevant to the installation are listed below, together with relevant solvent consumption thresholds, where applicable. The solvent management plan, or other means, has determined that the solvent consumption of the activity or activities relevant to the installation are as shown below.

Activity <sup>15</sup> :	Solvent Consumption Threshold (t/yr) <sup>16</sup> :	Installation's Solvent Consumption (t/yr) <sup>17</sup> :

The activity/activities relevant to the installation for which solvent consumption thresholds are exceeded are:

Activity (or activities) relevant to the installation <sup>18</sup> :

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## 3 ACTIVITIES LICENSABLE UNDER PART IV OF THE 1992 EPA ACT

The following activity definition, and solvent consumption threshold:

*"The manufacture or use of coating materials in processes with a capacity to make or use at least 10 tonnes per year of organic solvents"*

- ☐ Does apply to the installation<sup>19</sup>. Therefore the operator of the installation needs to apply for an IPC licence (if not already IPC licensed). The compliance report is not applicable for this installation.
- ☐ Does not apply to the installation<sup>20</sup>. Therefore the operator of the installation must meet the relevant requirements of S.I. 543 of 2002, including submission of this compliance report.

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## 4 SOLVENTS WITH SPECIFIC RISK PHRASES

### 4.1 Use of Solvents with Specific Risk Phrases

The following solvents are used by the installation which have been assigned risk phrases as indicated<sup>21</sup>:

Risk Phrase	Relevant Solvent
R45	
R46	
R49	
R60	
R61	
R40 and Halogenated	

#### 4.2 Measures Proposed to Replace Solvents with Specific Risk Phrases

The measures proposed by, or recommended for, the installation to replace as far as possible these substances by less harmful substances or preparations in accordance with article 8 of S.I. 543 of 2002 are as follows<sup>22</sup>:

#### 4.3 ELVs for Certain Discharges of Solvents with Specific Risk Phrases

Substances with the above mentioned risk phrases (apart from perchloroethylene used in the dry cleaning industry) have been given the following ELVs, where discharges are above the specified mass flows:

Risk Phrase	Threshold mass flow of the sum of such compounds	emission limit value (mass sum of the individual compounds)
R45 (may cause cancer) R46 (may cause heritable genetic damage) R49 (may cause cancer by inhalation) R60 (may impair fertility) R61 (may cause harm to the unborn child)	$\geq 10 \text{ g/h}$	$2 \text{ mg/Nm}^3$
R40 (limited evidence of a carcinogenic effect) and halogenated	$\geq 100 \text{ g/h}$	$20 \text{ mg/Nm}^3$

For those substances in use that have been assigned the above risk phrases (apart from perchloroethylene used in the dry cleaning industry), when discharges are compared with the mass flows stated in the previous table (tick as appropriate):

- ☐ None of the solvents in use carry any of the specified risk phrases<sup>23</sup>. Therefore these emission limit values are not relevant to the installation.
- ☐ Discharge(s) do not exceed the relevant mass flow thresholds stated in the table above<sup>24</sup>. Therefore these emission limit values are not relevant to the installation.
- ☐ The following discharge(s) exceed the relevant mass flow thresholds. The corresponding emission limit value in the final column below is applicable to the discharge point(s)<sup>25</sup>:

Risk Phrase	Threshold mass flow of the sum of such compounds (g/h)	Discharge Point	Actual mass flow of the sum of such compounds (g/h)	emission limit value (mass sum of the individual compounds) (mg/Nm <sup>3</sup> )

These emission limit values are applicable for emissions of such substances even where the operator of the installation opts to use the reduction scheme for other VOC emissions, or where the operator of the installation has existing abatement equipment.

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## 5 EMISSION LIMIT VALUES OR REDUCTION SCHEME

In accordance with article 7(1) of the Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (S.I. 543 of 2002), the installation has decided (indicate option chosen):

- ☐ To prove compliance with the Regulations using the Emission Limit Values. **Section 6** of the report is relevant to the installation.
- ☐ To prove compliance with the Regulations using the Reduction Scheme. **Section 7** of the report is relevant to the installation.
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## 6 EMISSION LIMIT VALUES

This section is relevant only if the installation has opted to use Emission Limit Values (ELVs). If not section 7 on the Reduction Scheme is the relevant section (select appropriate option).

- ☐ section 6 relevant.
- ☐ section 6 not relevant.
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### 6.1 Determining the relevant ELVs under the Regulations for this Installation

The installation is:

- ☐ a new installation. Section 6.2 is relevant.
- ☐ an existing installation, with new abatement equipment. Section 6.2 is relevant.
- ☐ an existing installation, with existing abatement equipment<sup>26</sup>. Section 6.3 is relevant.
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### 6.2 New Installation or Existing Installation with New Abatement Equipment

Since the installation is a new installation, or an existing installation with new abatement equipment, the Emission Limit Values (ELVs) under the Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (S.I. 543 of 2002) that are relevant to the installation are as follows<sup>27</sup>:

Activity (solvent consumption threshold in tonnes/year)	Threshold (solvent consumption threshold in tonnes/year)	Emission limit values in waste gases (mg C/Nm <sup>3</sup> )	Fugitive emission values (percentage of solvent input)	Total emission limit values	Special provisions

These Emission Limit Values (ELVs) must be met once the new installation is operational, or once the new abatement equipment in an existing installation is operational.

The above emission limit values in waste gases apply to the following discharge points<sup>28</sup>:

Discharge Point	Emission limit values in waste gases (mg C/Nm <sup>3</sup> )

The above fugitive emission values or total emission limit values apply to the installation<sup>29</sup>:

Fugitive emission values (percentage of solvent input)	Total emission limit values

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## 6.2 Existing Installation with Existing Abatement Equipment

Since the installation is an existing installation with existing abatement equipment, the Emission Limit Values (ELVs) under the Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (S.I. 543 of 2002) that are relevant to the installation are as follows:

Type of abatement	emission limit values (ELVs) for existing abatement equipment
Incineration	50 mg C/Nm <sup>3</sup>
Any other abatement equipment	150 mg C/Nm <sup>3</sup>

These ELVs are applicable only if the total emissions of the whole installation do not exceed those that would have resulted had all the requirements of Schedule 2 to S.I. 543 of 2002 been met. This would be as follows:

Total emissions had all the requirements of Schedule 2 been met (tonnes/year) <sup>30</sup>	
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The above emission limit values in waste gases apply to the following discharge points<sup>31</sup>:

Discharge Point	emission limit values (ELVs) for existing abatement equipment
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The installation is required to meet these ELVs no later than 31 October 2007.

The ELVs are applicable until 1 April 2013. After this date, the relevant ELVs in Schedule 2 to S.I. 543 of 2002 will apply.

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## 7 REDUCTION SCHEME

This section is relevant only if the installation has opted to use the reduction scheme. If not the previous section on Emission Limit Values (ELVs) is the relevant section<sup>32</sup>.

- ☐ section 7 relevant.  
☐ section 7 not relevant.

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### 7.1 Determining the Relevant Reduction Scheme Requirements for this Installation

The installation is planning to use<sup>33</sup>:

- ☐ the reduction scheme outlined in Schedule 3 to S.I. 543 of 2002. Section 7.2 is relevant.  
☐ a reduction scheme specially designed for the installation that in the end can achieve an equivalent emission reduction. Section 7.3 is relevant.

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### 7.2 Reduction Scheme Outlined in Schedule 3 to S.I. 543 of 2002

The reduction scheme requirements under the Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (S.I. 543 of 2002) that are relevant to the installation are as follows<sup>34</sup>:

#### **Annual Reference Emission**

$$\begin{aligned} &= (\text{total mass of solids in coatings consumed in a year}) \times (\text{multiplication factor}) \\ &= ( \quad \quad \quad ^{35}) \times ( \quad \quad \quad ^{36}) \\ &= ( \quad \quad \quad ) \text{ tonnes solvent} \end{aligned}$$

#### **Target Emission**

$$\begin{aligned} &= (\text{Annual Reference Emission}) \times (\text{percentage}) \\ &= ( \quad \quad \quad ^{37}) \times ( \quad \quad \quad ^{38}) \\ &= ( \quad \quad \quad ) \text{ tonnes solvent} \end{aligned}$$

#### **Maximum Allowed Total Annual Emissions**

$$\begin{aligned} \text{Interim: Maximum Allowed Total Annual Emissions} &= (\text{Target Emission}) \times 1.5 \\ &= ( \quad \quad \quad ) \times 1.5 \\ &= ( \quad \quad \quad ) \text{ tonnes solvent} \\ \text{Final: Maximum Allowed Total Annual Emissions} &= (\text{Target Emission}) \\ &= ( \quad \quad \quad ) \text{ tonnes solvent} \end{aligned}$$

Time period	Maximum Allowed Total Annual Emissions <sup>39</sup>
Interim <sup>40</sup> : By	
Final <sup>41</sup> : By	

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### **7.3 Alternative Reduction Scheme Specially Designed for the Installation**

Outline the alternative reduction scheme specially designed for the installation<sup>42</sup>:

Demonstrate how it can achieve an emission reduction equivalent to the reduction scheme in Schedule 3 to S.I. 543 of 2002:

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## 8 DEMONSTRATION OF COMPLIANCE

For solvents with the risk phrase(s) specified in section 4.1 the installation (tick the relevant option):

- ☐ Does not use any such solvents.
- ☐ Uses such solvents,
  - ☐ but discharges are below the mass flow thresholds specified in section 4.3. Therefore **Section 8.1** is relevant to the installation.
  - ☐ and has discharges of such solvents at mass flow thresholds above those specified in section 4.3. Therefore **Section 8.2** is relevant to the installation.

For solvents other than those with the risk phrase(s) specified in section 4.1, the installation (tick the relevant option):

- ☐ Is proving compliance using Emission Limit Values as outlined in section 6. Therefore **Section 8.3** is relevant to the installation.
- ☐ Is proving compliance using the Reduction Scheme as outlined in section 7. Therefore **Section 8.4** is relevant to the installation.

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### 8.1 Demonstration of Compliance – Use of Specified Risk Phrases below Specified Mass Flows

The measures proposed for the installation to meet the requirement to replace as far as possible specified risk phrase solvents by less harmful substances or preparations are as follows<sup>43</sup>:

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### 8.2 Demonstration of Compliance - Discharges with Specified Risk Phrases above Specified Mass Flows

The Emission Limit Value requirements for the installation and the actual emissions from the installation are as follows<sup>44</sup>:

Requirements			Actual		
Risk Phrase	Threshold mass flow of the sum of such compounds (g/h)	emission limit value (mass sum of the individual compounds) (mg/Nm <sup>3</sup> )	Discharge Point	Actual mass flow of the sum of such compounds (g/h)	Actual emissions (mass sum of the individual compounds) (mg/Nm <sup>3</sup> )

As can be seen from the above table, the installation:

- ☐ is in compliance
- ☐ is not in compliance

with the Emission Limit Value requirements in relation to discharges with specified risk phrases above specified mass flows.

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### 8.3 Demonstration of Compliance - Emission Limit Values

The Emission Limit Value requirements for the installation, and the actual emissions from the installation are as follows<sup>45</sup> (use one or both of the following tables depending on the type of ELV(s) applicable):

Type of ELV (fugitive emission value or total emission limit value)	ELV (units: )	Actual Emissions (units: )

ELV waste gases (mg C/Nm <sup>3</sup> )	Discharge Point	Actual Emissions (mg C/Nm <sup>3</sup> )

As can be seen from the above table(s), the installation:

- ☐ is in compliance  
☐ is not in compliance

with the Emission Limit Value requirements.

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### 8.4 Demonstration of Compliance - Reduction Scheme

The Reduction Scheme requirements for the installation, and the actual performance of the installation relative to the Reduction Scheme are as follows<sup>46</sup>:

As can be seen from the above table, the installation:

- ☐ is in compliance  
☐ is not in compliance

with the Reduction Scheme requirements.

The following is emissions reduction plan for the installation (if required):

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## 9 SOLVENT MANAGEMENT PLAN

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### 9.1 Mass Balance Terms

The mass balance terms for the solvent management plan in Schedule 6 to S.I. 543 of 2002 are as follows:

Mass Balance Terms	
<b><i>Inputs of organic solvents (I):</i></b>	
I1	The quantity of organic solvents or their quantity in preparations purchased which are used as input into the process in the time frame over which the mass balance is being calculated
I2	The quantity of organic solvents or their quantity in preparations recovered and reused as solvent input into the process. (The recycled solvent is counted every time it is used to carry out the activity)
<b><i>Outputs of organic solvents (O):</i></b>	
O1	Emissions in waste gases
O2	Organic solvents lost in water, if appropriate taking into account waste water treatment when calculating O5
O3	The quantity of organic solvents which remains as contamination or residue in products output from the process
O4	Uncaptured emissions of organic solvents to air. This includes the general ventilation of rooms, where air is released to the outside environment via windows, doors, vents and similar openings.
O5	Organic solvents and/or organic compounds lost due to chemical or physical reactions (including for example those which are destroyed, e.g. by incineration or other waste gas or waste water treatments, or captured, e.g. by adsorption, as long as they are not counted under O6, O7 or O8)
O6	Organic solvents contained in collected waste
O7	Organic solvents, or organic solvents contained in preparations, which are sold or are intended to be sold as a commercially valuable product
O8	Organic solvents contained in preparations recovered for reuse but not as input into the process, as long as not counted under O7
O9	Organic solvents released in other ways

The mass balance terms that are relevant to the installation are dependent on what the solvent management plan is being used to prove, and also on the type of activity being carried on at the installation. Since the installation is using the solvent management plan to (tick appropriate one):

- ☐ prove compliance with a total Emission Limit Value expressed in solvent emissions per unit product or otherwise stated in Schedule 2 to S.I. 543 of 2002 (see Appendix 2), section 9.2 outlines the mass balance terms relevant to the installation.
- ☐ prove compliance with a Fugitive Emission Value in Schedule 2 to S.I. 543 of 2002 (see Appendix 2), section 9.3 outlines the mass balance terms relevant to the installation.
- ☐ prove compliance with the Reduction Scheme in Schedule 3 to S.I. 543 of 2002 (see Appendix 3), section 9.3 outlines the mass balance terms relevant to the installation.
- ☐ prove compliance with any other Reduction Scheme, section 9.3 outlines the mass balance terms relevant to the installation.

## 9.2 Solvent Management Plan – proving compliance with Total Emission Limit Values

Since this installation is proving compliance with a total Emission Limit Value expressed in solvent emissions per unit product or otherwise stated in Schedule 2 to S.I. 543 of 2002 (see Appendix 2), the mass balance terms that are relevant to this installation and the values that have been calculated are as follows<sup>47</sup>:

Mass Balance Term		Value for the Installation (tonnes)
		Year:
F	Fugitive emissions - see section 9.6 for the calculation.	
O1	Emissions in waste gases	

Therefore emissions for the installation are as follows:

$$E = F + O1$$

$$E = ( \quad ) + ( \quad )$$

Also relevant to this installation is:

	Value for the Installation	Units
	Year:	
Relevant product parameter <sup>48</sup>		

Fugitive emission value = E / Relevant product parameter

$$= ( \quad ) / ( \quad )$$

$$= ( \quad )$$

## 9.3 Solvent Management Plan - proving compliance with Fugitive Emission Values

Since this installation is proving compliance with a Fugitive Emission Value, the mass balance terms that are relevant to this installation and the values that have been calculated are as follows<sup>49</sup>:

Mass Balance Term		Value for the Installation (tonnes)
		Year:
I1	The quantity of organic solvents or their quantity in preparations purchased which are used as input into the process in the time frame over which the mass balance is being calculated	
I2	The quantity of organic solvents or their quantity in preparations recovered and reused as solvent input into the process. (The recycled solvent is counted every time it is used to carry out the activity)	
F	Fugitive emissions - see section 9.6 for the calculation.	

Therefore emissions for the installation are as follows:

$$I = I1 + I2$$

$$I = ( \quad ) + ( \quad )$$

Fugitive emission = F / I

$$= ( \quad ) / ( \quad )$$

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#### 9.4 Solvent Management Plan – proving compliance with the Reduction Scheme in Schedule 3 to S.I. 543 of 2002

Since this installation is proving compliance by the Reduction Scheme in Schedule 3 to S.I. 543 of 2002 (see Appendix 3), the mass balance terms that are relevant to this installation and the values that have been calculated are as follows<sup>50</sup>:

Mass Balance Term		Value for the Installation (tonnes)
		Year:
I1	The quantity of organic solvents or their quantity in preparations purchased which are used as input into the process in the time frame over which the mass balance is being calculated	
O8	Organic solvents contained in preparations recovered for reuse but not as input into the process, as long as not counted under O7	

Therefore solvent consumption for the installation is as follows:

$$C = I1 - O8$$

$$C = ( \quad ) - ( \quad )$$

$$C = ( \quad ) \text{ tonnes}$$

Also relevant to this installation is:

	Value for the Installation (tonnes)
	Year:
Total mass of solids in coatings consumed in a year	

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#### 9.5 Solvent Management Plan – proving compliance with any other Reduction Scheme

Since this installation is proving compliance by an alternative Reduction Scheme, the mass balance terms that are relevant to this installation and the values that have been calculated are as follows<sup>51</sup>:

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#### 9.6 Solvent Management Plan – Calculating Fugitive Emissions

Fugitive emissions for the installation have been calculated as follows:

- ☐  $F = I1 - O1 - O5 - O6 - O7 - O8$  (section 9.6.1)
- ☐  $F = O2 + O3 + O4 + O9$  (section 9.6.2)
- ☐ An equivalent calculation (section 9.6.3)
- ☐ Direct measurement (section 10.2)

### 9.6.1 Calculating Fugitive Emissions using $F = I1 - O1 - O5 - O6 - O7 - O8$

Mass Balance Term		Value for the Installation (tonnes)
		Year:
I1	The quantity of organic solvents or their quantity in preparations purchased which are used as input into the process in the time frame over which the mass balance is being calculated	
O1	Emissions in waste gases	
O5	Organic solvents and/or organic compounds lost due to chemical or physical reactions (including for example those which are destroyed, e.g. by incineration or other waste gas or waste water treatments, or captured, e.g. by adsorption, as long as they are not counted under O6, O7 or O8)	
O6	Organic solvents contained in collected waste	
O7	Organic solvents, or organic solvents contained in preparations, which are sold or are intended to be sold as a commercially valuable product	
O8	Organic solvents contained in preparations recovered for reuse but not as input into the process, as long as not counted under O7	

$$F = I1 - O1 - O5 - O6 - O7 - O8$$

$$F = ( \quad ) - ( \quad ) - ( \quad ) - ( \quad ) - ( \quad ) - ( \quad )$$

$$F = ( \quad ) \text{ tonnes}$$

### 9.6.2 Calculating Fugitive Emissions using $F = O2 + O3 + O4 + O9$

Mass Balance Term <sup>52</sup>		Value for the Installation (tonnes)
		Year:
O2	Organic solvents lost in water, if appropriate taking into account waste water treatment when calculating O5	
O3	The quantity of organic solvents which remains as contamination or residue in products output from the process	
O4	Uncaptured emissions of organic solvents to air. This includes the general ventilation of rooms, where air is released to the outside environment via windows, doors, vents and similar openings.	
O9	Organic solvents released in other ways	

$$F = O2 + O3 + O4 + O9$$

$$F = ( \quad ) + ( \quad ) + ( \quad ) + ( \quad )$$

$$F = ( \quad ) \text{ tonnes}$$

### ***9.6.3 Calculating Fugitive Emissions using an Equivalent Calculation***

Fugitive emissions have been calculated using an equivalent calculation to those outlined in Schedule 3 to S.I. 543 of 2002 as follows:

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## **10 MEASUREMENT OF EMISSIONS**

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### **10.1 Measurement of Emissions – Waste Gases**

Emissions in waste gases have been measured directly as follows:

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### **10.2 Measurement of Emissions – Fugitive Emissions**

Fugitive emissions have been measured directly as follows:



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## **11 OTHER MEANS TO SHOW PERFORMANCE<sup>53</sup>**

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## **12    OTHER PERFORMANCE ISSUES<sup>54</sup>**

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## **CONFIDENTIAL INFORMATION<sup>55</sup>**

If this section is used, it should be submitted separate to the main body of the report.

In the event that the information in this section is deemed by the competent authority not to be held as confidential, it must be returned to the operator of the installation.

## APPENDIX 1

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### SCHEDULE 1 of *EMISSIONS OF VOLATILE ORGANIC COMPOUNDS FROM ORGANIC SOLVENTS REGULATIONS* 2002 (S.I. No 543 of 2002)

#### SCOPE

This Schedule contains the categories of activity referred to in article 4. When operated above the thresholds listed in Schedule 2, the activities mentioned in this Schedule fall within the scope of the Directive. In each case the activity includes the cleaning of the equipment but not the cleaning of products unless specified otherwise.

#### Adhesive Coating

Any activity in which an adhesive is applied to a surface, with the exception of adhesive coating and laminating associated with printing activities.

#### Coating Activity

- Any activity in which a single or multiple application of a continuous film of a coating is applied to:
  - vehicles as listed below:
    - new cars, defined as vehicles of category M1 in Directive 70/156/EEC<sup>1</sup>, and of category N1 in so far as they are coated at the same installations as M1 vehicles,
    - truck cabins, defined as the housing for the driver, and all integrated housing for the technical equipment, of vehicles of categories N2 and N3 in Directive 70/156/EEC,
    - vans and trucks, defined as vehicles of categories N1, N2 and N3 in Directive 70/156/EEC, but not including truck cabins.
    - buses defined as vehicles of categories M2 and M3 in Directive 70/156/EEC,
  - trailers, defined in categories O1, O2, O3 and O4 in Directive 70/156/EEC
  - metallic and plastic surfaces including surfaces of airplanes, ships, trains, etc.,
  - wooden surfaces,
  - textile, fabric, film and paper surfaces,
  - leather.

It does not include the coating of substrate with metals by electrophoretic and chemical spraying techniques. If the coating activity includes a step in which the same article is printed by whatever technique used, that printing step is considered part of the coating activity. However, printing activities operated as a separate activity are not included, but may be covered by the Directive if the printing activity falls within the scope thereof.

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<sup>1</sup> O.J. L 42, 23.2.1970, P.1 Directive as last amended by Directive 2000/40/EC (O.J. L 203, 10.8.2000, P.9)

### **Coil Coating**

Any activity where coiled steel, stainless steel, coating steel, copper alloys or aluminium strip is coated with either a film forming or laminate coating in a continuous process.

### **Dry Cleaning**

Any industrial or commercial activity using VOCs in an installation to clean garments, furnishing and similar consumer goods with the exception of the manual removal of stains and spots in the textile and clothing industry.

### *Footwear Manufacture*

Any activity of producing complete footwear or parts thereof.

### **Manufacturing of Coating Preparations, Varnishes, Inks and Adhesives**

The manufacture of the above final products, and of intermediates where carried out at the same site, by mixing of pigments, resins and adhesive materials with organic solvent or other carrier, including dispersion and pre-dispersion activities, viscosity and tint adjustments and operations for filling the final product into its container.

### **Manufacturing of Pharmaceutical Products**

The chemical synthesis, fermentation, extraction, formulation and finishing of pharmaceutical products and where carried out at the same site, at the same site, the manufacture of intermediate products.

### **Printing**

Any reproduction activity of text and/or images in which, with the use of an image carrier, ink is transferred onto whatever type of surface. It includes associated varnishing, coating and laminating techniques. However, only the following sub-process are subject to the Directive:

- *flexography* – a printing activity using an image carrier of rubber or elastic photopolymers on which the printing areas are above the non-printing areas, using liquid inks which dry through evaporation,
- *heatset web offset* – a web-fed printing activity using an image carrier in which the printing and non-printing area are in the same plane, where web-fed means that the material to be printed is fed to the machine from a reel as distinct from separate sheets. The non-printing is treated to attract water and thus reject ink. The printing area is treated to receive and transmit ink to the surface to be printed. Evaporation takes place in an oven where hot air is used to heat the printed material,
- *laminating associated to a printing activity* – the adhering together of two or more flexible materials to product laminates,
- *publication rotogravure* – a rotogravure printing activity used for printing paper for magazines, brochures, catalogues or similar products, using toluene-based inks,
- *rotogravure* – a printing activity using a cylindrical image carrier in which the printing area is below the non-printing area, using liquid inks which dry through evaporation. The recesses are filled with ink and the surplus is cleaned off the non-printing area before the surface to be printed contacts the cylinder and lifts the ink from the recesses,
- *rotary screen printing* – a web-fed printing activity in which the ink is passed onto the surface to be printed by forcing it through a porous image carrier, in which the printing area is open and the non-printing area is sealed off, using liquid inks which dry only through evaporation. Web-fed means that the material to be printed is fed

to the machine from a reel as distinct from separate sheets.

- *varnishing* – an activity by which a varnish or an adhesive coating for the purpose of later sealing the packaging material is applied to a flexible material.

### **Rubber Conversion**

An activity of mixing, milling, blending, calendering, extrusion and vulcanisation of natural or synthetic rubber and any ancillary operations for converting natural or synthetic rubber into a finished product.

### **Surface Cleaning**

Any activity except dry cleaning using organic solvents to remove contamination from the surface of material including degreasing. A cleaning activity consisting of more than one step before or after any other activity shall be considered as one surface cleaning activity. This activity does not refer to the cleaning of the equipment but to the cleaning of the surface products.

### **Vegetable Oil and Animal Fat Extraction and Vegetable Oil Refining Activities.**

Any activity to extract vegetable oil from seeds and other vegetable matter, the processing of dry residues to produce animal feed, the purification of fats and vegetable oils derived from seeds, vegetable matter and/or animal matter.

### **Vehicle Refinishing**

Any industrial or commercial coating activity and associated degreasing activities performing:

- the coating of road vehicles as defined in Directive 70/156/EEC, or part of them, carried out as part of vehicle repair, conservation or decoration outside of manufacturing installations, or
- the original coating of road vehicles as defined in Directive 70/156/EEC or part of them with refinishing-type materials, where this is carried out away from the original manufacturing line, or
- the coating of trailers (including semi-trailers) (category O).

### **Winding Wire Coating**

Any coating activity of metallic conductors used for winding the coils in transformers and motors, etc.

### **Wood Impregnation**

Any activity giving a loading of preservative in timber.

### **Wood and Plastic Lamination**

Any activity to adhere together wood and/or plastic to produce laminated products.

## APPENDIX 2

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SCHEDULE 2 of EMISSIONS OF VOLATILE ORGANIC COMPOUNDS FROM ORGANIC SOLVENTS REGULATIONS 2002 (S.I. No 543 of 2002)

### 1. THRESHOLDS AND EMISSION CONTROLS

	Column A	Column B	Column C	Column D	Column E	Column F
	Activity (solvent consumption in tonnes/year)	Threshold (solvent consumption threshold in tonnes/year)	ELV in waste gases (mg/C/Nm <sup>3</sup> )	Fugitive emission values (percentage of solvent input)	Total emission limit values	Special provisions
1	Heatset web offset printing (> 15)	15-25 > 25	100 20	30 <sup>(1)</sup> 30 <sup>(1)</sup>		<sup>(1)</sup> Solvent residue in finished product is not to be considered as part of fugitive emissions.
2	Publication rotogravure (>25)		75	(New) 10 (Existing) 15		
3	Other rotogravure, flexography, rotary screen printing, laminating or varnishing units (>15) rotary screen printing on textile/cardboard (> 30)	15-25 > 25 > 30 <sup>(1)</sup>	100 100 100	25 20 20		<sup>(1)</sup> Threshold for rotary screen printing on textile and on cardboard.
4	Surface cleaning <sup>(1)</sup> (>1)	1-5 > 5	20 <sup>(2)</sup> 20 <sup>(2)</sup>	15 10		<sup>(1)</sup> Using compounds specified in Articles 8 and 10. <sup>(2)</sup> Limit refers to mass of compounds in mg/Nm <sup>3</sup> and not to total carbon.
5	Other surface cleaning (>2)	2-10 > 10	75 <sup>(1)</sup> 75 <sup>(1)</sup>	20 <sup>(1)</sup> 15 <sup>(1)</sup>		<sup>(1)</sup> Installations which demonstrate to the competent authority that the average organic solvent content of all cleaning material used does not exceed 30% by weight are exempt from application of these values.

	Column A	Column B	Column C	Column D	Column E	Column F
	Activity (solvent consumption in tonnes/year)	Threshold (solvent consumption threshold in tonnes/year)	ELV in waste gases (mg/C/Nm <sup>3</sup> )	Fugitive emission values (percentage of solvent input)	Total emission limit values	Special provisions
6	Vehicle coating (<15) and vehicle refinishing	> 0. 5	50 <sup>(1)</sup>	25		<sup>(1)</sup> Compliance in accordance with Article 17 should be demonstrated on 15 minute average measurements.
7	Coil Coating (> 25)		50 <sup>(1)</sup>	(New) 5 (Existing) 10		<sup>(1)</sup> For installations which use techniques which allow reuse of recovered solvents, the emission limit value shall be 150
8	Other coating, including metal, plastic, textile <sup>(5)</sup> , fabric, film and paper coating (> 5)	5-15 > 15	100 <sup>(1)</sup> <sup>(4)</sup> 50/75 <sup>(2)</sup> <sup>(3)</sup> <sup>(4)</sup>	25 <sup>(4)</sup> 20 <sup>(4)</sup>		<sup>(1)</sup> Emission limit value applies to coating application and drying processes, operated under contained conditions <sup>(2)</sup> The first emission limit value applies to drying processes, the second to coating application processes. <sup>(3)</sup> For textile coating installations which use techniques which allow reuse of recovered solvents, the emission limit applied to coating application and drying processes taken together shall be 150. <sup>(4)</sup> Coating activities which cannot be applied under contained conditions (such as shipbuilding, aircraft painting) may be exempted from these values, in accordance with Article 13(3). <sup>(5)</sup> Rotary screen printing on textile is covered by activity No. 3.
9	Winding wire coating (> 5)				10 g/kg <sup>(1)</sup> 5 g/kg <sup>(2)</sup>	<sup>(1)</sup> Applies for installations where average diameter of wire ≤ 0.1 mm. <sup>(2)</sup> Applies for all other installations.
10	Coating of wooden surfaces (> 15)	15-25 > 25	100 <sup>(1)</sup> 50/75 <sup>(2)</sup>	25 20		<sup>(1)</sup> Emission limit applies to coating application and drying processes operated under contained conditions <sup>(2)</sup> The first value applies to drying processes, the second to coating application processes.



	Column A	Column B	Column C	Column D	Column E	Column F
	Activity (solvent consumption in tonnes/year)	Threshold (solvent consumption threshold in tonnes/year)	ELV in waste gases (mg/C/Nm <sup>3</sup> )	Fugitive emission values (percentage of solvent input)	Total emission limit values	Special provisions
11	Dry cleaning				20 g/kg <sup>(1)</sup> ( <sup>2</sup> )	<sup>(1)</sup> Expressed in mass of solvent emitted per kilogram of product cleaned and dried. <sup>(2)</sup> The emission limit in Article 10 does not apply for this sector.
12	Wood impregnation		100( <sup>1</sup> )	45	11 kg/m <sup>3</sup>	<sup>(1)</sup> Does not apply for impregnation with creosote.
13	Coating of leather (> 10)	10-25 >25 (>10) ( <sup>1</sup> )			85 g/m <sup>2</sup> 75 g/m <sup>2</sup> 150 g/m <sup>2</sup>	Emission limits are expressed in grams of solvent emitted per m <sup>2</sup> of product produced. <sup>(1)</sup> For leather coating activities in furnishing and particular leather goods used as small consumer goods like bags, belts, wallets, etc.
14	Footwear manufacture (>5)				25 g per pair	Total emission limit values are expressed in grams of solvent emitted per pair of complete footwear produced.
15	Wood and plastic lamination (> 5)				30 g/m <sup>2</sup>	
16	Adhesive coating (> 5)	5-15 > 15	50( <sup>1</sup> ) 50( <sup>1</sup> )	25 20		<sup>(1)</sup> If techniques are used which allow reuse of recovered solvent, the emission limit value in waste gases shall be 150.
17	Manufacture of coating preparations, varnishes, inks and adhesives (> 100)	100-1000 > 1 000	150 150	5 3	5% of solvent input 3% of solvent input	The fugitive emission value does not include solvent sold as part of a coatings preparation in a sealed container.
18	Rubber conversion (> 15)		20( <sup>1</sup> )	25 ( <sup>2</sup> )	25% of solvent input	<sup>(1)</sup> If techniques are used which allow reuse of recovered solvent, the emission limit value in waste gases shall be 150. <sup>(2)</sup> The fugitive emission value does not include solvent sold as part of products or preparations in a sealed container.

	Column A	Column B	Column C	Column D	Column E	Column F
	Activity (solvent consumption in tonnes/year)	Threshold (solvent consumption threshold in tonnes/year)	ELV in waste gases (mg/C/Nm <sup>3</sup> )	Fugitive emission values (percentage of solvent input)	Total emission limit values	Special provisions
19	Vegetable oil and animal fat extraction and vegetable oil refining activities (> 10)				Animal Fat: 1.5 kg/tonne Castor: 3 kg/tonne Rape Seed: 1 kg/tonne Sunflower seed: 1 kg/tonne Soya beans (normal crush): 0. 8 kg/tonne Soya beans (white flakes): 1.2 kg/tonne Other seeds and other vegetable matter: 3 kg/tonne <sup>(1)</sup> 1.5 kg/tonne <sup>(2)</sup> 4 kg/tonne <sup>(3)</sup>	<sup>(1)</sup> Total emission limit values for installations processing individual batches of seeds and other vegetable matter should be set by the competent authority on a case-by-case basis, applying the best available techniques. <sup>(2)</sup> Applies to all fractionation processes excluding de-gumming (the removal of gums from the oil). <sup>(3)</sup> Applies to de-gumming.
20	Manufacturing of pharmaceutical products (> 50)		20 <sup>(1)</sup>	(New) 5 <sup>(2)</sup> (Existing) 15 <sup>(2)</sup>	(New) 5% of solvent input (Existing) 15% of solvent input	<sup>(1)</sup> If techniques are used which allow reuse of recovered solvent, the emission limit value shall be 150. <sup>(2)</sup> The fugitive emission limit value does not include solvent sold as part of products or preparation in a sealed container.

## **2. THE VEHICLE COATING INDUSTRY**

The total emission limit values are expressed in terms of grams of solvent emitted in relation to the surface area of product in square metres and in kilograms of solvent emitted in relation to the car body.

The surface area of any product dealt with in the table below is defined as follows:

- the surface area calculated from the total electrophoretic coating area, and the surface area of any parts that might be added in successive phases of the coating process which are coated with the same coatings as those used for the product in question, or the total surface area of the product coated in the installation.

The surface of the electrophoretic coating area is calculated using the formula:

$$\frac{2 \times \text{total weight of product shell}}{\text{average thickness of metal sheet} \times \text{density of metal sheet}}$$

This method shall also be applied for other coated parts made out of sheets.

Computer aided design or other equivalent methods shall be used to calculate the surface area of the other parts added, or the total surface area coated in the installation.

The total emission limit value in the table below refers to all process stages carried out at the same installation from electrophoretic coating, or any other kind of coating process, through to the final wax and polish of top-coating inclusive, as well as solvent used in cleaning of process equipment, including spray booths and other fixed equipment, both during and outside of production time. The total emission limit value is expressed as the mass sum of organic compounds per m<sup>2</sup> of the total surface area of coated product and as the mass sum of organic compounds per car body.

Activity (solvent consumption threshold in tonnes/year)	Production threshold (refers to annual production of coated item)	Total emission limit value (g/m <sup>2</sup> unless otherwise indicated)	
		New	Existing
Coating of new cars (> 15)	> 5,000	45 or 1.5 kg/body + 33 g/m <sup>2</sup>	60 or 1.9 kg/body + 41 g/m <sup>2</sup>
	≤ 5,000 monocoque > 3,500 chassis-built	90 or 1.5 kg/body + 70 g/m <sup>2</sup>	90 or 1.5 kg/body + 70 g/m <sup>2</sup>
Coating of new truck cabins (> 15)	≤ 5,000 > 5,000	65 55	85 75
Coating of new vans and trucks	≤ 2,500 > 2,500	90 70	120 90
Coating of new buses (> 15)	≤ 2,000 > 2,000	210 150	290 225

Vehicle coating installations below the solvent consumption thresholds in the table above shall meet the requirements for the vehicle refinishing sector in this Schedule.

### APPENDIX 3

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#### SCHEDULE 3 of *EMISSIONS OF VOLATILE ORGANIC COMPOUNDS FROM ORGANIC SOLVENTS REGULATIONS 2002* (S.I. No 543 of 2002)

### REDUCTION SCHEME

#### 1. Principles

The purpose of the reduction scheme is to allow the operator the possibility to achieve by other means emission reductions, equivalent to those achieved if the emission limit values were to be applied. To that end the operator may use any reduction scheme, specially designed for his installation, provided that in the end an equivalent emission reduction is achieved.

#### 2. Practice

In the case of applying coatings, varnishes, adhesives or inks, the following scheme can be used. Where the following method is inappropriate the competent authority may allow an operator to apply any alternative exemption scheme which it is satisfied fulfils the principles outlined here. The design of the scheme takes into account the following facts: -

- (i) where substitutes containing little or no solvent are still under development; a time extension must be given to the operator to implement his emission reduction plans;
- (ii) the reference point for emission reductions should correspond as closely as possible to the emissions which would have resulted had no reduction action been taken.

The following scheme shall operate for installations for which a constant solid content of product can be assumed and used to define the reference point for emission reductions:

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- (i) the operator shall forward an emission reduction plan which includes in particular decreases in the average solvent content of the total input and/or increased efficiency in the use of solids to achieve a reduction of the total emissions from the installation to a given percentage of the annual reference emissions, termed the target emission. This must be done on the following time frame: -

Time period		Maximum allowed total annual emissions
New installations	Existing installations	
By 31 October 2003	By 31 October 2005	Target emission x 1.5
By 31 October 2004	By 31 October 2007	Target emission

- (ii) The annual reference emission is calculated as follows: -
  - (a) The total mass of solids in the quantity of coating and/or ink, varnish or adhesive consumed in a year is determined. Solids are all materials in coatings, inks, varnishes and adhesives that become solid once the water or the volatile compounds are evaporated.
  - (b) The annual reference emissions are calculated by multiplying the mass determined in (a) by the appropriate factor listed in the table below.

Competent authorities may adjust these factors for individual installations to reflect documented increased efficiency in the use of solids.

Activity	Multiplication factor for use in item (ii)(b) of this Schedule
Rotogravure printing; flexography printing; laminated as part of a printing activity; varnishing as part of a printing activity; wood coating; coating of textiles, fabric film or paper; adhesive coating	4
Coil coating, vehicle refinishing	3
Food contact coating, aerospace coatings	2.33
Other coatings and rotary screen printing	1.5

- (c) The target emission is equal to the annual reference emission multiplied by a percentage equal to: –
- (the fugitive emission value + 15), for installations falling within item 6 and the lower threshold band of items 8 and 10 of Schedule 2; or
  - (the fugitive emission value + 5) for all other installations.
- (d) Compliance is achieved if the actual solvent emission determined from the solvent management plan is less than or equal to the target emission.

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## NOTES TO THE COMPLIANCE REPORT

- <sup>1</sup> This should be a legal entity, i.e. either a person or body corporate, and not simply a trading name or trading company. The operator address can be different to the address where the installation is located or is to be located.
- <sup>2</sup> Fill this section in if the installation is/will be in a different location to the operator address. If it is in the same location insert "as above".
- <sup>3</sup> Insert the relevant activities from Section 2.
- <sup>4</sup> Tick whether the installation is a new installation or an existing installation. As per article 3 of S.I. 543 of 2002:  
 "existing installation" means an installation in operation on or before 30 June 2003;  
 "new installation" means an installation which is put into operation on or after 1 July 2003.
- <sup>5</sup> Tick whether the compliance report is being submitted to fulfil the annual reporting requirement, or because a substantial change is planned for the installation, or because the installation is a new installation which has not yet commenced operation.
- <sup>6</sup> This is the register number assigned to the installation by the competent authority. If this is the first compliance report to be submitted for the installation, a register number will not yet have been assigned. In this case insert "not applicable" in this section. If an installation has previously submitted a compliance report to the competent authority, a register entry will have been made for the installation containing the compliance report and either the certificate of compliance or the notification of non-compliance. In this case insert this register number, if known.
- <sup>7</sup> Indicate who is the competent authority. In the case of activities which are licensable under Part IV of the 1992 EPA Act, i.e. IPC licensable activities, the competent authority is the EPA. For all other activities which do not come under Part IV of the 1992 EPA Act, the competent authority is the county council or city council in whose functional area the installation is located.
- <sup>8</sup> Tick that which is applicable based on the evidence of the site visit and the compliance report.
- <sup>9</sup> List here those conditions which the operator of the installation must meet in order to ensure compliance with the Regulations. This should be filed in based on the site visit. If no conditions are deemed necessary, insert 'no conditions necessary'.
- <sup>10</sup> List here those recommendations which the operator of the installation must implement in order to ensure compliance with the Regulations. If no recommendations are deemed necessary, insert 'no recommendations necessary'.
- <sup>11</sup> The name of the person who is the accredited inspection contractor who carried out the site visit and compiled the compliance report.
- <sup>12</sup> The name of the accredited inspection contractor organisation or company.
- <sup>13</sup> This is the reference number assigned to the accredited inspection contractor by the National Accreditation Board (NAB) in accordance with the list referred to in article 22 of S.I. 543 of 2002.
- <sup>14</sup> Summarise in this section the various requirements that have been identified for the installation and compliance or otherwise as outlined in section 8.  
 If the facility needs to apply for an IPC licence, state it here.

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- <sup>15</sup> Indicate which activity or activities are being carried on or will be carried on at the installation from Appendix 1. Use only those words from the description given for the appropriate activity that best describes the activity. Remember more than one activity may be applicable to the installation, if so insert a new row.
- <sup>16</sup> For each of the activities relevant to the installation insert here the corresponding solvent consumption threshold from Appendix 1. There is no solvent consumption threshold for dry cleaning. If this is the relevant activity just state "no threshold".
- <sup>17</sup> Insert here the solvent consumption of the activity or each of the activities as determined by the solvent management plan, or other means.
- <sup>18</sup> List here those activity or activities from the previous table that are relevant to the installation and for which the solvent consumption of the installation exceeds the corresponding threshold. For activities with no threshold (dry cleaning), the activity is applicable to the installation regardless of solvent consumption. Remember more than one activity may be applicable to the installation, if so insert a new row. If the installation falls below the thresholds of all the relevant activities, the requirements of S.I. 543 of 2002 do not apply to the installation.
- <sup>19</sup> Tick if any of the activities relevant to the installation fall under the stated definition and exceed the stated 10 tonne per year solvent consumption threshold.
- Insert in the summary section 1.1 the EPA as the competent authority, and in the summary section 1.2 insert the following phrase: "Since this installation falls under the one of the classes of activities under the EPA Act, the installation must apply for an IPC licence. The compilation of a compliance report is not applicable to this installation."
- <sup>20</sup> Tick if none of the activities relevant to the installation fall under the stated definition, or if any of the activities relevant to the installation fall under the stated definition but do not exceed the stated 10 tonne per year solvent consumption threshold.
- <sup>21</sup> Apart from perchloroethylene used in the dry cleaning industry, list any solvents used by the installation that carry any of the specified risk phrases. Where more than one solvent has a particular risk phrase, insert additional rows. List the solvent by its chemical name. It may also be useful to insert any trade name in brackets after the chemical name. If none of the solvents in use carry any of these risk phrases insert 'none' into the Relevant Solvent column.
- <sup>22</sup> These measures can be proposed by the operator of the installation, or recommended by the AIC and agreed by the operator of the installation. Where it is not possible to replace these substances, reasons must be provided.
- If none of the solvents in use carry any of the specified risk phrases insert 'not applicable' into this section.
- <sup>23</sup> Tick this box if none of the solvents in use carry any of the specified risk phrases.
- <sup>24</sup> Tick this box if none of the discharges exceed the thresholds stated.
- <sup>25</sup> From the previous table, insert the relevant risk phrase in the first column, the relevant threshold in the second column, and the relevant ELV in the final column. In the third column insert the reference name or number of the discharge point. In the fourth column insert the actual mass flow of the discharge point.
- If more than one discharge exceeds the relevant threshold, insert additional rows.
- <sup>26</sup> See article 7(3) to Schedule 2 to S.I. 543 of 2002 for the definition of new and existing abatement equipment.
- <sup>27</sup> Insert here the ELVs from Schedule 2 to S.I. 543 of 2002 for the activity or activities in that have been identified as being relevant to the installation. If there are different ELVs for the activity depending on solvent consumption only insert those ELVs that are applicable to the level of solvent consumption identified by the solvent management plan. If any of the

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columns are not relevant to the particular activity, leave it blank. If more than one activity is applicable to the installation, insert a new row for each activity.

- 28 Insert the reference name/number of the discharge point together with the relevant ELV in waste gases from the previous table. If there is more than one discharge point, insert a new row for each discharge point. If there is no applicable ELV in waste gases state "n/a".
- 29 Insert any fugitive emission value or total emission limit value that applies to the facility. If there is more than one discharge point, insert a new row for each discharge point. If there is none applicable state "n/a".
- 30 Using the ELVs from Schedule 2 to S.I. 543 of 2002 (see Appendix 2) for the activity or activities in that have been identified as being relevant to the installation, calculate the total emissions that would have occurred had these ELVs been met.
- 31 Insert the reference name/number of the discharge point together with the relevant ELV in waste gases from the previous table depending on whether the existing abatement equipment is incineration or any other type of abatement. If there is more than one discharge point, insert a new row for each discharge point.
- 32 Select the appropriate option.
- 33 Select the appropriate option. The installation is allowed to use either.
  - the reduction scheme requirements from Schedule 3 to S.I. 543 of 2002 (see Appendix 3) for the activity or activities that have been identified as being relevant to the installation, or
  - the requirements of any reduction scheme specially designed for the installation that in the end can achieve an equivalent emission reduction.
- 34 If more than one activity is applicable to the installation, ensure that the reduction scheme calculation steps are repeated for each activity.
- 35 Insert here the total mass of solids in coatings consumed in a year (in tonnes) as determined in the solvent management plan or by any other means.
- 36 Insert here the multiplication factor for the activity applicable to the installation from the table in Schedule 3, part 2(ii)(b) to S.I. 543 of 2002 (see Appendix 3). The competent authority may adjust these multiplication factors for individual installations to reflect documented increased efficiency in the use of solids.
- 37 Insert here the value already calculated for the Annual Reference Emission.
- 38 Insert here the appropriate percentage as calculated in Schedule 3, part 2(ii)(c) to S.I. 543 of 2002 (see Appendix 3).
- 39 Insert in the first row of this second column the value calculated for 'Interim: Maximum Allowed Total Annual Emissions'. Insert in the second row the value calculated for 'Final: Maximum Allowed Total Annual Emissions'.
- 40 Insert here the appropriate *interim* date from the table in Schedule 3, part 2(i) to S.I. 543 of 2002 (see Appendix 3), depending on whether the installation is a new installation or an existing installation.
- 41 Insert here the appropriate *final* date from the table in Schedule 3, part 2(i) to S.I. 543 of 2002 (see Appendix 3), depending on whether the installation is a new installation or an existing installation.
- 42 An installation is allowed to use any alternative to the Reduction Scheme specified in Schedule 3 to the Regulations (see Appendix 3) as long as an equivalent emission reduction is achieved.
- 43 This section should note what measures the operator proposes to replace as far as possible these specified risk phrase solvents by less harmful substances or preparations.



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- <sup>44</sup> Even if the installation is using the reduction scheme, but has discharges of solvents with the risk phrases specified in section 4.1, at mass flow thresholds above those specified in section 4.3, this section must be used for demonstrating compliance or otherwise with these ELVs.

Insert here the ELV requirements, including dates, identified in section 4.3 for solvents with specified risk phrases. Also insert here the information obtained via emissions measurement to show actual emissions. Comment as to whether the installation is in compliance or otherwise.

- <sup>45</sup> Insert here the ELV requirements, including dates, identified in section 6. Also insert here information obtained via emissions measurement, the solvent management plan or any other means to show actual emissions. Comment as to whether the installation is in compliance or otherwise.
- <sup>46</sup> Insert here the reduction scheme requirements, including dates, identified in section 6. Also insert here the information obtained via the solvent management plan or any other means on actual performance of the installation relative to the reduction scheme. Comment as to whether the installation is in compliance or otherwise.
- <sup>47</sup> Note that not every term will be applicable to every activity. For example, an installation may have no abatement equipment in place and therefore no waste gas emissions (O1), only fugitive emissions (F). If a term is not applicable to the activity, insert 'not applicable' in the table, and put zero in the appropriate part of the equation.
- <sup>48</sup> The relevant product parameter is that in which the Total Emission Limit Value in Schedule 2 to S.I. 543 of 2002 (see Appendix 2) is expressed, for example, for wood and plastic lamination the Total Emission Limit Value is 30 g/m<sup>2</sup>. Therefore the relevant product parameter is the m<sup>2</sup> of laminated wood/plastic produced in the year.
- <sup>49</sup> Note that not every term will be applicable to every activity. For example, an installation may not recover and reuse solvent in the process (I2). If a term is not applicable to the activity, state 'not applicable' in the table, and put zero in the appropriate part of the equation.
- <sup>50</sup> Note that not every term will be applicable to every activity. For example, an installation may not recover any solvent for reuse outside the process (O8). If a term is not applicable to the activity, state 'not applicable' in the table, and put zero in the appropriate part of the equation.
- <sup>51</sup> In this case, the relevant mass balance terms will depend on the design of the alternative reduction scheme.
- <sup>52</sup> Note that not every term will be applicable to every activity. For example, there may be no residue remaining in product (O3). If a term is not applicable to the activity, state 'not applicable' in the table, and put zero in the appropriate part of the equation.
- <sup>53</sup> Outline here any other means that has been used apart from the solvent management plan or the measurement of emissions to show performance relative to the requirements of the Regulations.
- <sup>54</sup> Outline here other performance issues related to solvent usage and emissions such as training, waste management, material storage, record keeping, etc.
- <sup>55</sup> Insert here any information from other sections of the report that is deemed by the operator of the installation to be confidential in nature. In the relevant sections of the report where this information would normally have been entered, indicate that the information is considered confidential and has been placed in the Confidential Information section.