

**SOLVENT EMISSIONS ACT, 2002****Revoked by LN. 2013/042 as from 28.2.2013****Principal Act**

<b>Act. No. 2002-19</b>	<i>Commencement</i>	20.2.2003
	<i>Assent</i>	16.12.2002

Amending enactments	Relevant current provisions	Commencement date
LN. 2010/138	s. 2, Sch. 1, 2 & 3	29.7.2010
Act. 2010-18	Sch. 3	1.12.2010

English sources  
None cited

**EU Legislation/International Agreements involved:**

Directives 76/768/EEC  
Directive 88/378/EEC  
Directive 1999/13/EC  
Directive 2000/53/EC  
Directive 2002/96/EC  
Directive 2004/42/EC  
Directive 2008/112/EC  
Regulation (EC) No 1272/2008

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AN ACT TO TRANSPOSE INTO THE LAW OF GIBRALTAR THE PROVISIONS OF COUNCIL DIRECTIVE 1999/13/EC ON THE LIMITATION OF THE EMISSIONS OF VOLATILE ORGANIC COMPOUNDS DUE TO THE USE OF ORGANIC SOLVENTS IN CERTAIN ACTIVITIES AND INSTALLATIONS.

## **Title and commencement.**

1. This Act may be cited as the Solvent Emissions Act 2002 and comes into operation on the day appointed by the Minister for the Environment by notice in the Gazette.

## **Interpretation.**

2.(1) In this Act, unless the context otherwise requires—

“the Agency” means the Environmental Agency or such other body or person as the Minister may appoint for the purposes of this Act;

“the Directive” means Council Directive 1999/13/EC of 11 March 1999 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations, as the same may be amended from time to time;

“the Motor Vehicles Directive” means Council Directive 70/156/EEC of 6 February 1970 on the approximation of the laws of Member States relating to the type-approval of motor vehicles and their trailers;

“the Minister” means the Minister with responsibility for the environment.

(2) In the absence of any indication to the contrary, terms defined in the Directive have the same meaning in this Act.

## **Authorisations for installations in relation to solvent consumption.**

3.(1) No person shall operate an activity defined in Schedule 1 above the solvent consumption thresholds listed in Schedule 2 at a new installation without an authorisation granted by the Agency in accordance with section 4.

(2) Subject to subsection (3), no person shall continue to operate an activity defined in Schedule 1 above the solvent consumption thresholds listed in Schedule 2 at an existing installation after 31 October 2007 without an authorisation granted by the Agency in accordance with section 4.

(3) A person intending to continue to operate an activity defined in Schedule 1 above the solvent consumption thresholds listed in Schedule 2 at an existing installation after 31 October 2007 using the reduction scheme set out in Schedule 4 shall notify this to the competent authorities before 31 October 2005.

**Application for authorisation for installation.**

4.(1) A person making an application for an authorisation required by section 3 shall submit with that application information supporting the claim that the installation complies with the requirements of Schedule 3.

(2) The person applying for an authorisation shall publish the fact of the application in two or more daily or weekly newspapers circulating in Gibraltar stating that the details of the application may be inspected at the offices of the Agency.

(3) The Agency shall allow any member of the public to inspect the application during office hours.

(4) The Agency may grant an authorisation if it is satisfied, as provided in section 7, that the installation complies with the requirements of Schedule 3.

(5) In making its decision under subsection (4), the Agency shall take account of the guidance issued by the Commission under paragraph 1 of article 7 of the Directive as set out in regulations made under section 15.

**Change to installation.**

5. Where an installation either—

- (a) undergoes a substantial change; or
- (b) comes within the scope of this Act for the first time following a substantial change,

that part of the installation which undergoes the substantial change shall be treated either as a new installation or as an existing installation, provided that the total emissions of the whole installation do not exceed those that would have resulted had the substantially changed part been treated as a new installation.

**Monitoring.**

6.(1) The operator of an installation covered by this Act shall supply the Agency once a year or on request with data enabling it to verify compliance with this Act.

(2) Subject to subsection (3), channels to which abatement equipment is connected shall be monitored for compliance either—

- (a) continuously; or
- (b) periodically, in which case at least three readings should be obtained during each measurement exercise.

(3) Channels to which abatement equipment is connected and which at the final point of discharge emit more than an average of 10 kg/h of total organic carbon shall be monitored for compliance continuously.

## **Compliance.**

7.(1) An applicant for an authorisation under section 4 shall demonstrate to the satisfaction of the Agency as provided in article 9 of the Directive that the installation complies with the requirements of this Act.

(2) The operator of an installation covered by this Act which has undergone a substantial change shall forthwith supply the Agency with data enabling it to verify compliance with this Act.

## **Non-compliance.**

8. The operator of an installation covered by this Act shall, if it is found that the requirements of this Act have been breached—

- (a) inform the Agency;
- (b) take measures to ensure that compliance is restored within the shortest possible time; and
- (c) if non-compliance causes immediate danger to human health and for as long as compliance is not restored under the conditions of paragraph (b), suspend the operation of the activity.

## **Powers of Agency.**

9. The operator of an installation covered by this Act shall permit any officer of the Agency (or person appointed to act for the Agency) to inspect the installation, to take samples and gather any information necessary for the performance of the Agency's duties under this Act.

**Information.**

10.(1) The Agency shall make such information as is required by the Directive available to the Commission.

(2) Subject to subsection (3), the Agency shall, on request, make available to the public,–

- (a) the decision made under section 4(4) together with a copy of the authorisation and any subsequent updates;
- (b) the list of activities for which authorisations have been issued; and
- (c) the results of monitoring emissions under section 6 held by the Agency.

(3) The obligation on the Agency to make information available to the public under subsection (2) shall not apply when the information is information relating to the environment which is subject to rule 4 (1), (2), (3) or (5) of the Public Health (Freedom of Access to Information on the Environment) Rules 1992.

**Charges by Agency.**

11.(1) Where the Agency incurs costs in carrying out its functions under this Act it may charge a fee determined in accordance with this section to any person carrying on an activity to which this Act applies.

(2) The fee shall not exceed the sum of the costs reasonably incurred by the Agency in dealing with the activity to which this Act applies.

(3) Where, in the opinion of the Agency, it can properly carry out its functions under this Act only by engaging specialists and consultants, the cost of such specialists and consultants shall be included in the fee payable under sub-section (1).

(4) When requiring payment the Agency shall send or give to the person by whom the fee is payable, if that person so requests, a detailed statement of the work done and costs incurred and the period to which the statement relates and the requirements of this Act shall be deemed not to have been complied with unless the fee, or such proportion of it as the Agency may in its discretion specify, has been paid.

(5) The fee or such part of it as remains unpaid shall be recoverable as a civil debt.

**Offences.**

12. A person who fails to comply with the requirements of section 3, 6, 7, 8 or 9 is guilty of an offence and liable on summary conviction to a fine up to level 5 on the standard scale.

**Offences by corporations etc.**

13.(1) Where an offence under this Act which has been committed by a body corporate is proved to have been committed with the consent or connivance of, or to have been attributable to any neglect on the part of, a director, manager, secretary or other similar officer of the body corporate, or any other person purporting to act in any such capacity, he, as well as the body corporate, shall be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

(2) Where the affairs of a body corporate are managed by its members, sub-section (1) shall apply in relation to the acts and defaults of a member in connection with his functions of management as if he were a director of a body corporate.

(3) A fine imposed on an unincorporated association on its conviction for an offence shall be paid out of the funds of the association.

(4) Where an offence under this Act committed by a partnership is proved to have been committed with the consent or connivance of, or to have been attributable to any neglect on the part of a partner, he as well as the partnership is guilty of the offence and liable to be proceeded against and punished accordingly.

**Defences.**

14. In any proceedings for an offence under this Act it shall be a defence for the person charged to prove that he took all reasonable steps and exercised all due diligence to avoid the commission of the offence.

**Regulations.**

15. The Minister may make regulations for the purposes of implementing this Act and the Directive.

**SCHEDULE 1**

Section 3

**ACTIVITIES COVERED BY THE ACT**

This Schedule contains the categories of activity referred to in section 3.

When operated above the thresholds listed in Schedule 2 the activities mentioned in this Schedule fall within the scope of this Act.

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:

- (a) vehicles as listed below:
  - (i) new cars, defined as vehicles of category M1 in the Motor Vehicles Directive, and of category N1 in so far as they are coated at the same installation as M1 vehicles,
  - (ii) 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 the Motor Vehicles Directive,
  - (iii) vans and trucks, defined as vehicles of categories N1, N2 and N3 in the Motor Vehicles Directive, but not including truck cabins,
  - (iv) buses, defined as vehicles of categories M2 and M3 in the Motor Vehicles Directive,
- (b) trailers, defined in categories O1, O2, O3 and O4 in the Motor Vehicles Directive,



- (c) metallic and plastic surfaces including surfaces of airplanes, ships, trains, etc.,
- (d) wooden surfaces,
- (e) textile, fabric, film and paper surfaces,
- (f) 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 this Act if the printing activity falls within the scope thereof.

### **Coil coating.**

Any activity where coiled steel, stainless steel, coated 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 mixtures, 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 predispersion 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, 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-processes are subject to this Act:

- (a) 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,
- (b) 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 area 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,
- (c) laminating associated to a printing activity - the adhering together of two or more flexible materials to produce laminates,
- (d) publication rotogravure - a rotogravure printing activity used for printing paper for magazines, brochures, catalogues or similar products, using toluene-based inks,
- (e) 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,
- (f) 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,
- (g) 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.**

Any 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 of 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:

- (a) the coating of road vehicles as defined in the Motor Vehicles Directive, or part of them, carried out as part of vehicle repair, conservation or decoration outside of manufacturing installations, or
- (b) the original coating of road vehicles as defined in the Motor Vehicles Directive or part of them with refinishing-type materials, where this is carried out away from the original manufacturing line, or
- (c) 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.

## SCHEDULE 2

Sections 3 and 4(1)

### THRESHOLDS AND EMISSION CONTROLS

	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
				New	Existing	New	Existing	
1	Heatset web offset printing (>15)	15-25 >25	100 20	30 (1) 30 (1)				(1) Solvent residue in finished product is not to be considered as part of fugitive emissions
2	Publication rotogravure (>25)		75	10	15			
3	Other rotogravure, flexography, rotary screen printing, laminating or varnishing units (>15) rotary screen printing on textile/cardboard (>30)	15-25 >25 >30(1)	100 100 100	25 20 20				(1) Threshold for rotary screen printing on textile and on cardboard
4	Surface cleaning (1) (>1)	1-5 >5	20(2) 20(2)	15 10				(1) Using compounds specified in paragraphs (6) or (8) of Schedule 3. (2) Limit refers to mass of compounds in mg/Nm <sup>3</sup> , and not to total carbon

	Activity (solvent)	Threshold	Emission limit	Fugitive	Total emission limit	Special provisions
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	consumption threshold in tonnes/year)	(solvent consumption threshold in tonnes/year)	values in waste gases (mg C/Nm <sup>3</sup> )	emission values (percentage of solvent input)		values		
				New	Existing	New	Existing	
5	Other surface cleaning (>2)	2-10 >10	75(1) 75(1)	20(1) 15(1)				(1) Installations which demonstrate to the Agency that the average organic solvent content of all cleaning material used does not exceed 30% by weight are exempt from application of these values.
6	Vehicle coating (<15) and vehicle refinishing	>0,5	50(1)	25				(1) Compliance in accordance with Article 9(3) of the Directive should be demonstrated based on 15 minute average measurements
7	Coil coating (>25)		50(1)	5	10			(1) For installations which use techniques which allow reuse of recovered solvents, the emission limit shall be 150.
8	Other coating, including metal, plastic, textile(5), fabric, film and paper coating (>5)	5-15 >15	100(1)(4) 50/75 (2)(3)(4)	25(4) 20(4)				(1) Emission limit value applies to coating application and drying processes operated under contained conditions. (2) The first emission limit value applies to drying processes, the second to coating application processes. (3) For textile coating installations which use techniques which allow reuse of recovered solvents, the emission limit applied to coating

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	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
				New	Existing	New	Existing	
								application and drying processes taken together shall be 150. (4) Coating activities which cannot be applied under contained conditions (such as shipbuilding, aircraft painting) may be exempted from these values, in accordance with paragraph (3) of Schedule 3. (5) Rotary screen printing on textile is covered by activity No 3.
9	Winding wire coating (>5)					10 g/kg(1) 5 g/kg(2)		(1) Applies for installations where average diameter of wire ≤ 0,1 mm, (2) Applies for all other installations.
10	Coating of wooden surfaces (>15)	15-25 >25	100(1) 50/75(2)	25 20				(1) Emission limit applies to coating application and drying processes operated under contained conditions. (2) The first value applies to drying processes, the second to coating application processes.
11	Dry cleaning					20 g/kg (1)(2)(3)		(1) Expressed in mass of solvent emitted per kilogram of product cleaned and dried. (2) The emission limit in paragraph 8 of Schedule 3 does not apply for this sector.
12	Wood impregnation (>25)		100(1)	45		11 kg/m <sup>3</sup>		(1) Does not apply for impregnation with creosote.
13	Coating of leather (>10)	10-25 >25  (>10)(1)				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. (1) For leather coating activities in furnishing and particular leather goods used as small consumer goods like bags, belts, wallets, etc.
14	Footwear manufacture					25 g per pair		Total emission limit values are expressed in

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	(>5)					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(1) 50(1)	25 20		(1) If techniques are used which allow reuse of recovered solvent, the emission limit value in waste gases shall be 150.
17	Manufacture of coating mixtures, varnishes, inks and adhesives (>100)	100-1000 >1000	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 mixture in a sealed container.
18	Rubber conversion (>15)		20(1)	25(2)	25% of solvent input	(1) If techniques are used which allow reuse of recovered solvent, the emission limit value in waste gases shall be 150. (2) The fugitive emission value does not include solvent sold as part of products or mixtures in a sealed container.



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	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
				New	Existing	New	Existing	
19	Vegetable oil and animal fat extraction and vegetable oil refining activities (>10)					Animal fat: 1,5 kg/tonne Castor: 3kg/tonne Rape seed: 1 kg/tonne		(1) Total emission limit values for installations processing individual batches of seeds and other vegetable matter should be set by the Agency on a case-by-case basis, applying the best available techniques.
						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(1) 1,5 kg/tonne(2) 4 kg/tonne(3)		(2) Applies to all fractionation processes excluding de-gumming (the removal of gums from the oil). (3) Applies to de-gumming.
20	Manufacturing of pharmaceutical products (>50)		20(1)	5(2)	15(2)	5% of solvent input	15% of solvent input	(2) The fugitive emission limit value does not include solvent sold as part of products or mixtures in a sealed container.

**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 topcoating 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.

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Activity (solvent consumption threshold in tonnes/year)	Production threshold (refers to annual production of coated item)	Total emission limit value	
		New	Existing
Coating of new cars (>15)	>5000	45 g/m <sup>2</sup> or 1,3 kg/body + 33 g/m <sup>2</sup>	60 g/m <sup>2</sup> or 1,9 kg/body + 41 g/m <sup>2</sup>
	≤5000 monocoque or >3500 chassis-built	90 g/m <sup>2</sup> or 1,5 kg/body + 70 g/m <sup>2</sup>	90 g/m <sup>2</sup> or 1,5 kg/body + 70 g/m <sup>2</sup>

Activity (solvent consumption threshold in tonnes/year)	Production threshold (refers to annual production of coated item)	Total emission limit value	
		New	Existing
		Total emission limit (g/m <sup>2</sup> )	
Coating of new truck cabins (>15)	≤ 5000	65	85
	> 5000	55	75
Coating of new vans and trucks (>15)	≤ 2500	90	120
	> 2500	70	90
Coating of new buses (>15)	≤ 2000	210	290
	> 2000	150	225

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

**SCHEDULE 3**

Section 4(1) and (4)

**CONDITIONS FOR AUTHORISATION**

1. Installations shall comply with:
  - (a) either the emission limit values in waste gases and the fugitive emission values, or the total emission limit values, and other requirements laid down in Schedule 2; or
  - (b) the requirements of the reduction scheme set out in Schedule 4.
2. For fugitive emissions, fugitive emission values shall apply to installations as an emission limit value. However, where it is demonstrated to the satisfaction of the Agency that for an individual installation this value is not technically and economically feasible, the Agency can make an exception for such an individual installation provided that significant risks to human health or the environment are not to be expected. For each derogation, the operator must demonstrate to the satisfaction of the Agency that the best available technique is being used.
3. Activities which cannot be operated under contained conditions may be exempted from the controls of Schedule 2, when this possibility is explicitly mentioned in that Schedule. The reduction scheme set out in Schedule 4 is then to be used, unless it is demonstrated to the satisfaction of the Agency that this option is not technically and economically feasible. In this case, the operator must demonstrate to the satisfaction of the Agency that the best available technique is being used.
4. For installations not using the reduction scheme, any abatement equipment shall meet all the requirements of Schedule 2.
5. Installations where two or more activities are carried out, each of which exceeds the thresholds in Schedule 2 shall:
  - (a) as regards the substances specified in paragraphs 6, 7 and 8, meet the requirements of those paragraphs for each activity individually;
  - (b) as regards all other substances, either:
    - (i) meet the requirements of paragraph 1 for each activity individually; or

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- (ii) have total emissions not exceeding those that would have resulted had point (i) been applied.

6. Substances or mixtures which, because of their content of VOCs classified as carcinogens, mutagens or toxic to reproduction under Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures are assigned or need to carry the hazard statements H340, H350, H350i, H360D or H360F or the risk phrases R45, R46, R49, R60 or R61 shall be replaced, as far as possible and by taking into account the guidance referred to in Article 7(1), by less harmful substances or mixtures within the shortest possible time.

7. For discharges of the VOCs referred to in paragraph 6, where the mass flow of the sum of the compounds causing the labelling referred to in that paragraph is greater than, or equal to, 10 g/h, an emission limit value of 2 mg/Nm<sup>3</sup> shall be complied with. The emission limit value refers to the mass sum of the individual compounds.

8. For discharges of halogenated VOCs which are assigned the risk phrases R40 or R68, where the mass flow of the sum of the compounds causing the labelling R40 or R68 is greater than, or equal to, 100 g/h, an emission limit value of 20 mg/Nm<sup>3</sup> shall be complied with. The emission limit value refers to the mass sum of the individual compounds.

The discharge of VOCs referred to in paragraphs 6 and 8 shall be controlled as emissions from an installation under contained conditions as far as technically and economically feasible to safeguard public health and the environment.

9. Discharges of those VOCs which are assigned or need to carry one of the risk phrases mentioned in paragraphs 6 and 8, shall have to comply with the emission limit values mentioned in paragraphs 7 and 8 respectively, within the shortest possible time after the coming into force of this Act.

10. All appropriate precautions shall be taken to minimise emissions during start-up and shut-down.

11. Existing installations which operate existing abatement equipment and comply with the following emission limit values:

- (a) 50 mg C/Nm<sup>3</sup> in the case of incineration; or
- (b) 150 mg C/Nm<sup>3</sup> in the case of any other abatement equipment,

shall be exempt from the waste gases emission limit values in the table in Schedule 2 until 1 April 2013, provided the total emissions of the whole installation do not exceed those that would have resulted had all the requirements of the table been met.

12. Neither the reduction scheme nor the application of paragraph 11 exempt installations discharging substances specified in paragraphs 6, 7 and 8 from fulfilling the requirements of those paragraphs.

## SCHEDULE 4

Section 3(3)

### REDUCTION SCHEME

#### Principles

1. The purpose of the reduction scheme is to allow the operator of an installation covered by this Act 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.

#### Practice

2. In the case of applying coatings, varnishes, adhesives or inks, the following scheme can be used. Where the following method is inappropriate the Agency 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-

- (a) 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;
- (b) 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.

3. 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-

- (a) 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-

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Time period		Maximum allowed total Annual emissions
New installations	Existing installations	
By six months after the coming into force of this Act	By 31.10.2005	Target emission x 1,5
By 31.10.2004	By 31.10.2007	Target emission

(b) The annual reference emission is calculated as follows-

- (i) 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 organic compounds are evaporated.
- (ii) The annual reference emissions are calculated by multiplying the mass determined in (i) by the appropriate factor listed in the table below. The Agency may adjust these factors for individual installations to reflect documented increased efficiency in the use of solids.

Activity	Multiplication factor for use in item (b)(ii)
Rotogravure printing; flexography printing; laminating 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

(iii) The target emission is equal to the annual reference emission multiplied by a percentage equal to-

- (AA) (the fugitive emission value + 15), for installations falling within item 6 and the lower threshold band of items 8 and 10 of Schedule 2,



- (the fugitive emission value + 5) for all other installations.

- (iv) Compliance is achieved if the actual solvent emission determined from the solvent management plan is less than or equal to the target emission.