Towards a better wipes disposal management

Guidelines to observing European Regulations on hazardous wastes
EDANA is the European Disposables and Nonwovens Association.

It represents and defends the interests of the nonwovens, and of the absorbent hygiene products industries, in connection with their suppliers, and actively promotes nonwovens acceptance, growth and reputation in their respective markets.

This brochure has been sponsored by the group of producers of nonwovens industrial wipes within EDANA.

More information on EDANA is available on www.edana.org.
Disposable wipes are an intrinsic clean and safe product. However, they are often used in conjunction with other substances, which are hazardous. The combination of the two may make the combined product hazardous. This can cause them to be covered by hazardous waste legislation.

In this context, the European Commission regularly issues new Regulations regarding the disposal of waste. The latest was adopted in January 2001. This revised “European Waste Catalogue” is a harmonized list of waste including waste that can be considered as hazardous. Data provided includes potential hazardous properties and substance concentration.

Applying this new catalogue may affect the way in which you dispose of your wastes, and how much it costs. This leaflet is intended as a guideline to define the categories into which your used wipes fall and to help you choose the proper disposal method, in terms of environmental responsibility and cost. In other words, how good management of your used wipes can help you stay legal and save money.

The new EU waste catalogue will be enforced in Member States from January 2002. It is always wise to check with local regulations in order to comply with local disposal rules, which may slightly differ from European ones.

Who should be concerned about this issue?

- Users of wiping material, buyers, procurers;
- Health, safety and environment managers;
- Members of local authorities (regulators, etc);
- Distributors of disposable wiping materials.
This simple guide is more than an overview of the new waste legislation. It also will help you to:

**observe the law:**
- by disposing the used wipes properly;
- by helping the risk assessment through the updated education of your employees and subcontractors about this new legislation.

**improve cost-effectiveness:**
- by discussing with your suppliers you could certainly replace some hazardous substance by non-hazardous ones;
- by reducing the amount you pay for hazardous waste disposal.

**protect the environment:**
- by attaining increased customer confidence;
- by improving relations with the local authorities;
- responsible environmental policies will reflect well on your company.

The above aims help conform to the requirements of the Environment Management Systems (e.g. EMAS, ISO 14000), and help to insure the well being of your employees by better management of wipes.
As such, disposable wipes are never toxic or hazardous. It is the interaction between the substances put on the wipe (such as solvents, ink, pigments), and substances on the machines/instruments that are cleaned that may create a chemical “cocktail” by which the wipe becomes hazardous.

In order for this “cocktail” to be defined as hazardous, certain thresholds must be breached. To calculate these thresholds, one must work through the Material Safety Data Sheet (or MSDS) that accompany the substances and calculate percentages by weight in relation to the EU waste catalogue. The steps to do this are outlined below:

1. Check the symbol on the packaging.
   a. If any of the three symbols (see box a) are depicted, then the wipes must be disposed in specific bins.
   b. If any of the four symbols (see box b) are depicted, then the substance is potentially hazardous.
2. In this last case, check relevant sections on the MSDS for more information (especially sections 2, 3, 11, 12, 13, 15).
3. Compare to the EU waste catalogue (or see category reference chart p.6).
4. Calculate the total hazard level in the wipe, which will determine the appropriate disposal method. If, after use, the wipe is not hazardous, it may be thrown in a normal bin. If, on the other hand, it becomes hazardous, then the wipes must be disposed in specific bins.

Although the calculations can be difficult to do, there are some basic rules to make it easier. These may avoid your wipes becoming hazardous or could help you to minimize your amount of hazardous material and thereby reduce costs and still meet your legal requirements. For these, see our section on wipes management.
Should your wipe be considered hazardous?

**TIP 4**: Optimise segregation procedure for hazardous and non-hazardous waste to reduce disposal costs.

**Substance**

**Symbol on packaging**

- **Box a**: If these symbols are present on the packaging:
  - Non-hazardous
  - Hazardous

- **Box b**: If these symbols are NOT present on the packaging:
  - Check relevant info on MSDS (in particular the danger class and the risk phrases)
  - Compare to EU waste catalogue
  - Calculate total hazard in wipe

**Threshold limit**

- Under
  - Normal bin
- Over
  - Specific disposal
This table shows some important circumstances in which wipes contaminated by dangerous substances are classified as hazardous waste according to the European Waste Catalogue.

<table>
<thead>
<tr>
<th>Dangerous substance(s) (see label and MSDS)</th>
<th>Associated Risk Phrase</th>
<th>Threshold limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>F  Flammable</td>
<td>R 10</td>
<td>is reached when substances classified as flammable with a flash point $\leq 55^\circ\text{C}$ are present on the wipe</td>
</tr>
<tr>
<td>T+ Very Toxic</td>
<td>R 28, R 27, R 26</td>
<td>is reached when one or more substances classified as very toxic are present on the wipe, at a total concentration of $\geq 0.1%$</td>
</tr>
<tr>
<td>T  Toxic</td>
<td>R 25, R 24, R 23</td>
<td>is reached when one or more substances classified as toxic are present on the wipe, at a total concentration of $\geq 3%$</td>
</tr>
<tr>
<td>Xn Harmful</td>
<td>R 22, R 21, R 20</td>
<td>is reached when one or more substances classified as harmful are present on the wipe, at a total concentration of $\geq 25%$</td>
</tr>
<tr>
<td>C  Corrosive</td>
<td>R 35</td>
<td>is reached when one or more corrosive substances classified as R 35 are present on the wipe, at a total concentration of $\geq 1%$</td>
</tr>
<tr>
<td>C  Corrosive</td>
<td>R 34</td>
<td>is reached when one or more corrosive substances classified as R 34 are present on the wipe, at a total concentration of $\geq 5%$</td>
</tr>
<tr>
<td>Xi Irritant</td>
<td>R 41</td>
<td>is reached when one or more irritant substances classified as R 41 are present on the wipe, at a total concentration of $\geq 10%$</td>
</tr>
<tr>
<td>Xi Irritant</td>
<td>R 36, R 37, R 38</td>
<td>is reached when one or more irritant substances classified as R 36, R 37, R 38 are present on the wipe, at a total concentration of $\geq 20%$</td>
</tr>
<tr>
<td>T Carcinogenic</td>
<td>R 45, R 49</td>
<td>is reached when one substance known to be carcinogenic of category 1 or 2 is present on the wipe, at a concentration of $\geq 0.1%$</td>
</tr>
<tr>
<td>Xn Carcinogenic</td>
<td>–</td>
<td>is reached when one substance known to be carcinogenic of category 3 is present on the wipe, at a concentration of $\geq 1%$</td>
</tr>
</tbody>
</table>
Effective wipes management

If you determine that your used wipes are hazardous waste there are a number of actions you can take. These are mostly common sense actions which can save money.

1. Where possible contact the supplier of the hazardous substances to see if they have a non-hazardous alternative. This will also make the handling and disposal of the substances easier.

2. Segregate your wipes so that only those wipes which are hazardous are disposed of as hazardous.

3. Ensure full use of all wipes used with hazardous substances.

4. Ensure you have the right wipe for the job. If you use a wipe specifically engineered for the application, you may reduce the total cost of wipes and substances used. If you need help in choosing the right wipes, EDANA wipes member companies would be pleased to help you.

5. Look critically at your entire process to see where the hazardous substances are used. It may be that a better approach could help your cost.
• Disposable: single or limited used product becomes waste material after use, which in turn can be recycled, composted, incinerated or disposed of in a landfill.

• Material Safety Data Sheet (MSDS): standardised safety document detailing properties and hazards of chemicals and other products; includes guidance on what to do in event of accident or misuse. The producer or the importer is responsible for providing an MSDS.

• Risk phrases: standard phrases giving simple information about the hazards of the chemical in normal use; they are identified by the letter ‘R’ (e.g. R 21: harmful in contact with skin).

• Substances: chemical elements and their compounds in the natural state or obtained by any production process, including any additives necessary.

• Threshold limit: the concentration of hazardous substances, given as a percentage, of total mass, above which waste is considered hazardous according to the European waste catalogue.

• Total hazard: the total quantity of all hazardous substances present in one single material.
European Waste Catalogue: Commission Decision 2001/118/EC, OJ L 47, 16.02.2001: harmonized list of waste including waste that can be considered as hazardous. Data provided includes potential hazardous properties and substance concentration.


For more detailed information on disposable wipes check www.edana.org or contact:

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