European Waste Classification

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Legislation

  - Defines waste
  - Defines hazardous waste … points to the List

- **List of Waste Decision 2000/532/EC**
  - List
  - Use of List
List of Wastes

- 20 Chapters
- 839 entries
- 405 marked as hazardous
- 2, 4 and 6 digit codes
Rules for using the EWC

- 2, 4 and 6 digit entries important
- Chapter preference rules
- Waste with an asterisk (*) is hazardous
- Some entries automatically hazardous or non-hazardous
- Some entries require assessment
- Only specified alloys are hazardous
Importance of 2, 4, 6 digits

20 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS.

20 01 Separately collected fractions (except 15 01)

20 01 01 paper and cardboard
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>06 01 01*</td>
<td>sulphuric acid and sulphurous acid</td>
</tr>
<tr>
<td>10 01 09*</td>
<td>sulphuric acid</td>
</tr>
<tr>
<td>11 01 05*</td>
<td>pickling acids</td>
</tr>
<tr>
<td>11 01 06*</td>
<td>acids not otherwise specified</td>
</tr>
<tr>
<td>16 06 06*</td>
<td>separately collected electrolyte from batteries and accumulators</td>
</tr>
<tr>
<td>20 01 14*</td>
<td>acids</td>
</tr>
</tbody>
</table>
Chapter preference

- 01 to 12, 17 to 20, not 99
- 13, 14 and 15
- 16
- 99
Types of entry

“Absolute” hazardous, for example lead acid batteries

“Absolute” non-hazardous, for example mixed municipal waste

“Mirror” hazardous, for example soils containing hazardous substances

“Mirror” non-hazardous, for example soils without hazardous substances
## Why does it matter?

<table>
<thead>
<tr>
<th>No hazard assessment required for “absolute”</th>
<th>Hazard assessment required for “mirror”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry is hazardous or entry is non-hazardous</td>
<td>Assessment made and the relevant “mirror” chosen</td>
</tr>
<tr>
<td>Simple, quick</td>
<td>Complex, time-consuming</td>
</tr>
</tbody>
</table>
Hazard assessment

• Fifteen hazardous properties
  • chemicals (H1-8, H10-14)
  • infectious agents (H9)
  • waste specific (H15)

• Testing or threshold assessment
  • DSD and DPD based
  • Uses risk phrases
  • Annex VI to CLP
Example assessment

Municipal waste incinerator bottom ash (IBA)

19 WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE

19 01 wastes from incineration or pyrolysis of waste

19 01 11* bottom ash and slag containing dangerous substances

19 01 12 bottom ash and slag other than those mentioned in 19 01 11
### IBA composition (headline substances)

<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration (mg/kg)</th>
<th>Potential Hazard(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>up to 12.8</td>
<td>H4</td>
</tr>
<tr>
<td>Calcium</td>
<td>up to 131,000</td>
<td>H4</td>
</tr>
<tr>
<td>Copper</td>
<td>up to 5,000</td>
<td>H14</td>
</tr>
<tr>
<td>Lead</td>
<td>up to 2,200</td>
<td>H14</td>
</tr>
<tr>
<td>Zinc</td>
<td>up to 4,000</td>
<td>H14</td>
</tr>
<tr>
<td>Nickel</td>
<td>up to 760</td>
<td>H13</td>
</tr>
</tbody>
</table>

Could be H4 Irritant, H13 Sensitising, H14 Ecotoxic but...

- acid/alkali reserve
- metal speciation
Proposals for change

- Chemicals legislation changing (GHS / CLP)
- Proposals to change List
- Working group from 2009
- Difficulties – impact
- List changes particularly difficult
- Vote 2012
UK situation – hazardous waste data

- 2.1 million consignments
- 2.3 million wastes
- 173,000 registered and 81,000 exempt producers
- 2,300 consignees sent 7,500 returns
- 3.8 million tonnes hazardous waste managed