

## Test plan - Chemicals

Outline of the ten tests that are to be carried out. A description of tests nos. 1, 2, 3 and 4 can also be seen from this annex.

Test no.	Instrument	Area for effort	Target group	Indicators
1.	Info on website. Supplemented with various awareness raising measures such as pamphlets and advertisements	Cosmetics	Citizens	<ul style="list-style-type: none"> <li>• Number of hits on website</li> <li>• Number of products received from citizens for assessment</li> </ul>
2.	Visits and guidance/dialogue	Mercury	Business/dentists	<ul style="list-style-type: none"> <li>• Number of visits</li> <li>• Number of clinics with wastewater filter and correct waste management</li> <li>• Concentration of Hg in wastewater for treatment plant</li> </ul>
3.	Visit and concrete assistance with mapping, clean-up and substitution of hazardous chemicals	Car maintenance agents	Business/garages	<ul style="list-style-type: none"> <li>• Number of undesired products /chemicals phased out and/or substituted</li> <li>• Number of enterprises having made a chemicals mapping</li> </ul>
4.	Information and dialogue through group with high credibility towards the target group	Toys	Citizens/parents with young children through visiting nurses	<ul style="list-style-type: none"> <li>• Number of meetings that visiting nurses have held with mothers' groups</li> <li>• Number of pamphlets distributed</li> </ul>
5.	Information and dialogue through Agenda 21 group	Toys and cosmetics	Citizens/children and parents and the municipality	<ul style="list-style-type: none"> <li>• Number of information meetings and number of participants</li> <li>• Changes in the municipality's purchasing catalogue</li> </ul>
6.	Information and	Detergents	The municipality	<ul style="list-style-type: none"> <li>• Rate of eco-labelled products used</li> </ul>

	dialogue/topic meetings			
7.	Information/ pamphlets and website. Dialogue/topic meetings	Electronics	Citizens, enterprises and the municipality	<ul style="list-style-type: none"> <li>• Municipal purchase of new eco-friendly electronics</li> <li>• The waste management company is contacted about incorrectly delivered electronics</li> </ul>
8.	Information/ pamphlets and website. Dialogue/topic meetings	Paints	Enterprises and the municipality	<ul style="list-style-type: none"> <li>• Number of assessed products and number of substituted products</li> <li>• Number of participants at topic meetings, hits on website and pamphlets distributed</li> </ul>
9.	Information through environmental management system (ISO 14001/ EMAS)	Soft PVC	The municipality/day- care centres	<ul style="list-style-type: none"> <li>• Use of amalgam per dentist</li> <li>• Number of wastewater permits with "zero-discharge"</li> </ul>
10.	Information/ pamphlets	Pesticides	Citizens, enterprises and the municipality	<ul style="list-style-type: none"> <li>• Use of pesticides</li> <li>• Number of citizens and enterprises not using pesticides</li> <li>• Number of citizens and enterprises having stopped using pesticides</li> </ul>

**Problem**

We have a large consumption of many different products with many different constituents some of which are hazardous to human health and/or the environment. Information about which products are the least hazardous both to human health and the environment is unavailable or difficult to get at for the ordinary consumer.

**Target group**

Citizens.

**Instrument/Effort: Website with product assessments**

Cosmetics are assessed on the basis of declarations that are mandatory according to the Statutory Order on Cosmetic Products. The assessment must be made through the Chemical database on the website of the Information Centre for Environment and Health (IMS).

The product assessments are gathered in a database that is made publicly available on the Internet.

A link will be made to the IMS Chemical database so that citizens who did not find what they were looking for can easier move forward with their own assessment. Links may also be made to many of the other studies made of cosmetics.

The website will invite citizens who did not find the products they were looking for to send in the empty packaging to the municipality. We will then make a product assessment and publish it on the net.

In addition to filing new product assessments it will be necessary to make recurrent audits of existing product assessments.

The database will be made known through different media: local newspapers, the municipality's website, distribution of pamphlets at different green events.

**Indicators**

- Number of hits on the website.
- Number of products received from citizens for assessment (and maybe also other questions about the website).

**When**

August 2005 – December 2006.

**How**

Product assessments are made and published on the website.

**Test no. 2**

Area for effort: **Mercury**

Responsible: **Municipality of Herning**

**Problem**

Total mercury consumption can be divided into intentional and unintentional use. The intentional use from 1992-93 to 2001 has been reduced by 70 % from around 6,200 kg/year to around 1,600 kg/year. The unintentional use remains at around 2,000 kg/year. /1/

Mercury in amalgam for dental fillings accounts for by far the largest part of the present intentional use – around 75%. /1/. Discharges from wastewater treatment plants are the largest source of mercury in the aquatic environment and in soil due to application of sludge. The treatment plants receive mercury primarily from dental clinics, but other major sources are thermometers and measuring and control equipment.

**Target group**

Enterprises and the municipality, i.e. private dental clinics and the municipal dental treatment for schoolchildren.

**Instrument/effort: Visits and guidance/dialogue**

Limitation of discharges of mercury from dentists through correct waste management and treatment of wastewater. In addition, studies of knowledge about alternatives to the use of mercury.

Supervision of dental clinics, guidance on management of mercury, requirements for treatment of mercury-containing wastewater and requirement for management of waste with mercury.

**Indicators**

Number of visits to clinics

Number of clinics with wastewater filter for treatment of wastewater

Number of clinics with correct waste management

Concentration of mercury in wastewater at intake to Herning wastewater treatment plant

**When**

September 2005 – December 2006.

**How**

Environmental supervision, connection permits, waste management, wastewater analyses.

**Test no. 3  
Ballerup**

**Area for effort: Car maintenance agents** Responsible: **Municipality of**

**Knowledge base**

Car maintenance agents cover a wide range of products: anti-corrosion agents, detergents, cooling agents and lubricants, paints, glue, oil etc. These agents are primarily used by mechanics at garages, but also by "do-it-your-self" people at home.

Many problematic substances may be constituents of the above car maintenance agents: organic tin (binder, preservatives), heavy metals (pigments), PFOS, chlorinated hydrocarbons, chlorinated solvents, heavy hydrocarbons, isocyanates, nonylphenols, phthalates, formaldehyde, pigments, chlorinated paraffins, PFOS, LAS, detergents, mineral oil, additives, creosote, HFC, light hydrocarbons etc.

**Problem**

Many different products are used (car maintenance products) at garages, car painters, service stations etc. Some of these products contain/may contain substances on various lists (effects list, list of undesired substances, list of hazardous substances, OSPAR list etc.). When the products (substances) are used they (may) have an impact on human beings (directly from breathing or intake through the skin) and the environment (wastewater, air, soil, waste). Products containing substances on the list of hazardous substances must be substituted.

**Target group(s)**

Enterprises and the municipality itself.

**Instrument/effort : Visits and concrete assistance for mapping, clean-up and substitution**

Management of chemicals – mapping, assessment and substitution of hazardous substances. It is planned to clean up, carry out chemicals mapping, assessment and, if needed, substitution at five garages as well as at two to three municipal garages having/using car maintenance agents. All garages are located in the municipality of Ballerup.

The task will be carried out in close cooperation with the enterprises and the municipal enterprises, particularly in the first phase covering clean-up and provision of SFS (safety fact sheets) for the different products. These will be used in the assessment of the different substances (products).

**Indicator**

Number of enterprises having made a chemicals mapping  
Number of undesired products /chemicals phased out and/or substituted

**When**

1 October 2005 – 30 June 2006

**How**

Supervision visits and follow-up (see under effort).

**Test no. 4**

**Area for effort: Toys**

Responsible: **Municipality of Ballerup**

**Knowledge base**

Toys contain many problematic substances that are under suspicion of being allergenic, carcinogenic or teratogenic. The chemicals added to toys cover, for example, perfumes in textile rattles, softeners in bathing pools and brominated flame retardants in electronic toys. In autumn 2004 the Danish Technological Institute tested 22 pieces of toys that proved to contain concentrations of heavy metals and phthalates above the EU limit value.

**Problem**

What is good and what is bad – it is a jungle to find your way in the flow of information on problematic substances in toys. And not least to find alternatives to the problematic toys. Children are highly exposed to chemicals in toys and take in the problematic substances through the skin, through breathing or orally. No one knows the long-term effects of chemicals in toys and no one knows the synergy effect.

**Target groups**

Citizens (mothers' groups).

**Instrument/effort: Information and dialogue through group with high credibility towards the target group**

In cooperation with visiting nurses the Green Secretariat will prepare a small pamphlet with tips for toys for 0-1 year old babies. In addition we will purchase a box of eco-friendly toys. All visiting nurses in the municipality will be invited to a topic meeting where they are presented to the pamphlet and the toy box. After that, the visiting nurses will bring the folders and the toy box at their visits to mothers' groups.

**Indicators**

Toys and occupational materials containing problematic substances according to the list of hazardous and undesired substances will be substituted. Visiting nurses will have informed and distributed the pamphlets to at least ten mothers' groups.

**When**

1 September 2005 – 1 December 2006

**How**

Preparation of information material and training