

Accompanying the environmental improvement of the batteries  
Assessments of the strengths of Fuji Enviromax  
batteries against major competitors of alkaline  
batteries

Presented to

FUJI ENVIROMAX CANADA



By the representative of the project:



In collaboration with



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## 1. Scenario

This report presents a comparison of the Fuji Enviromax alkaline battery with its main competitors and a list of its competitive advantages from an environmental and social perspective.

Fuji Enviromax implemented several bonus tracks that we proposed to them as part of this mandate. They proved to be collaborative.

This report reflects the improvements that Fuji Enviromax has done throughout this study

## 2. COOP ASEPS et le CQDD

**Coop ASEPS** is a cooperative of workers, incorporated in 2013, which includes five members. It is composed of members who wish to assist companies wishing to integrate sustainable development into their activities. To do this, they use tools and most recognized scientific methods, methods such as social and environmental lifecycle testing.

Their expertise includes over 30 years in the field of implementation of sustainable development. Several methods, grids and indicators have been used in various projects and an analytics grid of projects has already helped to analyze more than 100 projects. They participated in the development of grids and indicators in the implementation on the Law on Sustainable Development of the Quebec Government . The grid of Global Reporting Initiative (GRI) has also been used a few times. Coop has analyzed life cycle in the field of food processing, biodiesel production and manufacturing.

The approach of the Coop ASEPS focuses on the development of products and services based on life cycle thinking. Services offered include environmental training, support for environmental labeling, evaluation of impacts and emissions, support for responsible sourcing, comparative studies to develop new products in order to reduce environmental impacts, monitoring of impacts with a view to continuous improvement and environmental monitoring

Web site of the coop : <http://coopaseps.com/>

The **Quebec Centre for Sustainable Development** (QSDC) is an independent non-profit organization (NPO) with over 20 years experience in operational implementation of sustainability in organizations.

Its mission is to assist organizations in their efforts to integrate the principles of sustainable development so that they improve their financial, social and environmental performance. To achieve this, the QSDC uses its expertise, they develop intervention models and implement the form of services adapted to different organizational contexts.

More than 250 organizations have used their specialized services to meet the changing expectations of society. The QSDC produces custom orders for a wide variety of organizations such as large corporations, small businesses, municipalities, government departments and industry associations.

The trust of its customers are primarily based on competence, professionalism and humanism of its specialists. Their approach is to ensure that the client can achieve its objectives and to give him the means to pursue its sustainable development independently

Web site of the CQDD : <http://www.cqdd.qc.ca/>

### 3. General comparative

Here is a comparative table of the main alkaline batteries on the market. This table has been built through the websites visited from each company and the documents available online. This comparative study is not exhaustive.

Comparators	Fuji	Duracell	Energizer	Rayovac
<i>Refers to sustainable development reports</i>	<b>Yes</b>	No	No	No
Practice the philosophy of sustainable development	<b>Yes</b>	No	No	No
Manufactures using an approach based on life cycle thinking	<b>Yes</b>	No	No	No
The results of the environmental impacts using a life cycle analysis are available	No	No	No	No
Produces environmentally friendly packaging	<b>Yes</b>	No	No	No
Encourages recycling of alkaline batteries	<b>Yes</b>	<b>Yes</b>	No	No
Provides access to data sheets	<b>Yes</b>	<b>Yes</b>	No	No
Provides access to performance tests on the website	<b>Yes</b>	<b>Yes</b>	No	No
Refers to standards and other	<b>Yes</b>	<b>Yes</b>	No	No
Has environmental markings on the battery	<b>Yes</b>	No	No	No
Has environmental markings on the packaging	<b>Yes</b>	<b>Yes</b>	No	No
Promotes the rechargeable battery on its website	To Come <sup>1</sup>	<b>Yes</b>	No	<b>Yes</b>
Alkaline batteries are mercury free (or has very low concentration)	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
The lifetime of the alkaline battery	10 yrs	10 yrs	10 yrs	10 yrs

Fuji battery has environmental benefits over competing alkaline batteries especially in light of the following:

- The company has a based on life cycle thinking approach. (See page 18 of the full report [http://www.fdk.com/kankyoe/2008report\\_e.pdf](http://www.fdk.com/kankyoe/2008report_e.pdf))
- The surface of the battery and the plastic packaging are made of PET, not PVC. PET plastic has some environmental benefits that PVC does not have. Mainly, the PET is recyclable. Around the world, governments and industries take action to reduce and even eliminate PVC. You could set the example of hospitals with the item you sent me, in reference

<sup>1</sup> The company is currently in production of rechargeable batteries. It will be promoting on its website and is already marketing to existing customers.

- See the following links on the comparisons between the different plastics and dangers of exposure to PVC.
  - <http://www.achats-responsables.ch/leguide/parse/materiaux/28/3>
  - [http://www.synergiesanteenvironnement.org/wp-content/uploads/2011/10/InfoSigmaVert\\_juillet2011.pdf](http://www.synergiesanteenvironnement.org/wp-content/uploads/2011/10/InfoSigmaVert_juillet2011.pdf)
  - <http://www.aroy.net/pointbiologique/multi-pvc.pdf>
  - <http://reseau-environnement-sante.fr/2014/06/18/dossiers-par-themes/reduire-leexposition-aux-perturbateurs-endocriniens-permettrait-de-realiser-31-milliards-deuros-deconomies-en-depenses-de-sante-dans-lunion-europeenne/>
- The manufacturing of the batteries was done in factories that are implementing actions to reduce environmental impacts such as:
  - Reduction of VOCs (volatile organic compound) with targets to obtain in relation to the situation in 2006
  - Reducing emissions from waste
  - Reduction of CO2 emissions from transport
  - Reduction of energy consumption
- The battery packaging is fully recyclable and made from 93% recycled (PET plastic and cardboard) materials.
- · Independent tests have shown that a Fuji battery lasts longer under certain conditions (see footnote on independent testing).
- · During manufacturing, no compound is used that depletes the ozone layer
- FDK, the battery manufacturer, has set up a monitoring system for its suppliers so that they comply with the environmental requirements set by the company.
- · The company launches a comprehensive environmental and social report, available to consumers who want to know more (put the link to the website )[http://www.fdk.com/kankyoe/2008report\\_e.pdf](http://www.fdk.com/kankyoe/2008report_e.pdf).
- \* A series of committee focused on the environment oversees every aspect of business operations. This management system is the EMS and the explanation of it is on the website of the company.

- FDK has obtained the status "Sony Green Partner OEM" ((Sony created the "Sony Green Partner" program to evaluate and certify providers who qualify as "Green Partners")). This program is based on the development production "totally green" which is one of the most rigorous in the world based on the following three principles:
  - Compliance with ISO 9001, with respect to system quality management and to the green procurement system of Sony
  - Check the purity of the four following raw materials on a freelance basis every three months
    - resin
    - wire
    - paint
    - ink
  - monitoring of suppliers and periodic evaluation

(Voir le site Internet pour plus de détail sur le programme)
- The company ensures continuous improvement of its business operations, facilities and equipment, which resulted in a 3% reduction in CO2 emissions in the first year.
- The company is working to reduce the environmental impact of its products throughout their life cycle.
- · Fuji Enviromax and Recyc-Québec strongly encourage consumers to recycle batteries even if no law in Quebec prohibits the disposal of the batteries with household waste.

#### 4. **Conclusion**

Based on analyzed informations, websites visited and reports that were readily available and have been consulted, the alkaline battery Fuji Enviromax has many environmental benefits because the company stands out from its competitors in terms of:

- The quantity and quality of environmental information that are readily available to consumers.
- Some benefits are recognized such as a package that stands out from the competition (replacing PVC with PET plastic, using recycled cardboard) and one based on life cycle thinking approach.
- Transparency in its assertions (eg, competitors do not write on the packaging or on the batteries that there may be a little mercury in the composition of the battery).

- Membership of the Sony Green Partner Program
- The performance analyzed by independent firms and product quality

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