



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Data Collection Questionnaire

Development of Inventory of Endocrine Disrupting Compounds and Environmental Persistent Pharmaceutical Pollutants as well as their Management Action Plans in South Africa



November 2019

 Mamadi & Company SA	DOCUMENT TITLE: Development of Inventory of Endocrine Disrupting Compounds and Environmental Persistent Pharmaceutical Pollutants as well as their Management Action Plans in South Africa	 environmental affairs Department: Environmental Affairs REPUBLIC OF SOUTH AFRICA
	DOC NO: MC_DEA_EDC_001	

DATA COLLECTION INSTRUMENT FOR LIFE CYCLE ASSESSMENT

The National Department of Environment, Forestry and Fisheries (DEFF) has commissioned the development of inventories for **Endocrine Disruption Chemicals (EDCs)** and for **Environmentally Persistent Pharmaceutical Products (EPPP)** coupled with their respective management plans in South Africa. The aim of the project is to develop comprehensive strategies and policies instruments for sustainably managing these materials in order to protect the environment and human health.

In order to achieve the aim of the study, data are needed to undertake a Life Cycle Analysis (LCA) of EDCs and EPPPs. The purpose of this questionnaire is to source and collate relevant data including:

- Information on EDCs / EPPPs production, prevalence, quantities and uses / applications;
- How EDCs / EPPPs are sourced, manufactured, imported and exported, stored, packaged, managed (including obsolete stockpiles), treatment and disposal methods, and associated risks, *etc*;
- Information regarding quantities of EDCs / EPPPs in raw material, products, quantity of waste generated, method of transportation, types of transport, fuel used, estimated emissions from both extraction and transportation.
- Information on current alternatives to EDCs / EPPPs;
- Information on the current management protocol of waste/effluent containing EDCs / EPPPs, including disposal sites; and
- Information on EDCs / EPPPs awareness in South Africa and socio-economic relevance.

DEFINITIONS

EDC is an exogenous substance or mixture that alters function(s) of the endocrine system and consequently causes adverse health effects in an intact organism or its progeny.

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EPPP comprise one of the few groups of pharmaceutical chemicals that are specifically designed to act on living cells, which presents a special risk when they enter, persist and are dispersed into the environment.

INSTRUCTIONS:

- Please complete as much as possible.
- Note that some questions are restricted to materials containing known and unknown EDCs or pharmaceutical products that are persistent in the environment, others are more generic and applies to chemical and pharmaceutical products.
- Should a question not apply to your institution/organisation/company, please state **NOT APPLICABLE**.
- If unsure of the answer to a question or the answer is unknown, please state **UNSURE** or **UNKNOWN**.
- Preferably, please use scientific names or CAS Numbers for your chemical or pharmaceutical products

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	DOC NO:	MC_DEA_EDC_001	

QUESTIONS:

- 1.) Select the stream sector to which your establishment belongs (please select as many as may be applicable):

Stream Sector	Select
Upstream sectors including importers / exporters, manufacturers / producers, regulators, associations, governing bodies <i>etc.</i>	
Midstream sectors including transporters / distributors / dispensers / wholesaler and retailers, storage facilities (neither manufacturers nor end users)	
Downstream sectors including end users of products such as industries, hospitals, veterinaries, businesses, farms, households, waste/effluent management facilities.	

- 2.) Business Activity (please select as many as may be applicable):

Agriculture/ farming		Hospitals/clinics	
Chemical manufacturing industry		Multinational	
Cosmetics manufacturing industry		Pharmacy shops	
Dispensary		Plastic manufacturing industry	
Distribution		Storage facility	
Drug/pharmaceutical manufacturing company		Textiles manufacturing industry	
Education (Research / University, Schools <i>etc.</i>)		Transportation	
Government Department / Organ of State		Waste / Effluent Management Facilities (Incinerators, wastewater treatment works, landfill sites <i>etc.</i>)	
Others, please state			

- 3.) Please select the most applicable:

Activity	YES	NO
Your institution is aware of EDCs		
Your institution makes use of EDCs in its operations		
Your institution has policies and management protocols in place for EDCs and substances containing EDCs		
Your institution is aware of EPPPs		
Your institution makes use of pharmaceuticals that are environmentally persistent		

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	DOC NO:	MC_DEA_EDC_001	

Your institution has policies and management protocols in place for pharmaceuticals and its associated wastes		
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4.) What does your institution / organisation do

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5.) If a multinational, please list country/countries where manufacturing/ production of products take place or are imported from or exported to

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6.) Please confirm if import / export of EDCs / EPPP is regulated by local or international policies, guidelines or standards [Yes / No]. Please state the name of the regulation

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7.) Please state the location of your institution / organisation (province and town/city)

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8.) How long has the institution been operating (years/months)

9.) Please state the government department that regulates your institution (for example, Department of Health, Department of Trade and Industry, Department of Labour, Department of Environment, Forestry and Fisheries, Department of Agriculture etc)

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10.) Please list Act(s) and or Regulation(s) that governs your institution in South Africa

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11.) Please list the top 10 product(s) containing EDCs / EPPPs that your company manages (pharmaceutical product, chemical, plastic product, paint, *etc*). For Manufacturers (Upstream sectors) please state possible alternatives that excludes EDCs / EPPPs.

Products containing EDCs / EPPPs	Alternatives (Upstream and/or downstream sector only)

12.) For each product listed above, please provide the information on their chemical composition (CAS Number where applicable)

Products EDCs / EPPPs	Composition / CAS Number / any other information

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Products EDCs / EPPPs	Composition / CAS Number / any other information

13.) Please describe briefly how EDCs / EPPPs are approved / permitted before they are made available to your institution and/or made available to other users. Please attach a protocol or web link if available.

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14.) Are there any blacklisted or legally restricted substance containing EDCs / EPPPs within your institution? [Yes / No]

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15.) As per the above, please list the blacklisted or legally restricted substance (if unsure please state Unknown).

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16.) If an Upstream sector, list your main input raw materials (kg / ton) that contains possible EDCs/EPPPs used per day/week/month/year?

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17.) If Upstream sector, how are your raw materials sourced. Please select.

Imported from other countries	
Manufacture on site	
Sourced from other companies within South Africa	
Others, please state	

18.) What products (chemical or pharmaceutical) do you transport, distribute or store?

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19.) If your raw materials/products are sourced/distributed, kindly provide details on how the materials are transported (by land, including road and rail, by sea or by air) and typical distance covered in km.

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20.) On the average how much distance (km) is covered per week/month/year in the course of transporting/distributing the products?

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21.) What kind of fuel is used during transporting of the materials (Petro / Diesel / Aviation fuel) if unsure please say so?

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22.) In the course of transporting the materials / chemicals / pharmaceuticals have you experienced incidences / accidents resulting in discharge of materials?

Yes/No.....

if yes, please provide average quantities lost per day/week/month/year

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23.) Please provide the quantity (kg / ton) of products containing EDCs or are EPPPs that are produced per day/week/month/year

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24.) How much water (litres or cubic metres) do you use per day/week/month/year

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25.) How much electricity do you use per day/week/month/year

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26.) If manufacturing how many production cycles do you run per day/week/month/year

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27.) How do you package / store your product (material used / warehouse or any other facility)

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28.) If you are into storage of chemicals/pharmaceuticals, please state:

the average size of your warehouse/other facility for storage.....
number of warehouses/facilities nationwide.....

29.) Please list the primary type of waste that is managed at your facility. Pharmaceutical or chemicals or both

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30.) List the EDCs and or EPPPs that are of concerns to your institution

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31.) List the Chemicals (or the chemical composition) or EPPPs and their respective discharge/disposal limits. If not sure, please state UNKNOWN.

EDCs / EPPPs	Regulated Discharge / Disposal Limit

32.) What quantity (kg or ton) of chemicals/pharmaceutical waste requiring management and disposal do you generate per day/week/month/year?

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33.) How much (kg, ton) of expired products are disposed of as waste per day/week/month/year at your facility

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34.) How do you manage the pharmaceuticals and/or chemical wastes or effluent generated (*e.g* waste storage facility on site prior to disposal, treatment onsite prior (*e.g* incineration on site) prior to disposal, recycling or reuse onsite or off site, discharge into municipal sewer or collection by registered waste service provider for disposal, *et* c)

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35.) If you use incinerators on site as a treatment measure, how many incinerators does your institution/organisation operate:

Per site.....

Nationwide

What is the average capacities (per site or nationally)

Frequency of usage (per day/week/month/year)

36.) Does your institution recycle or reuse pharmaceutical / chemical wastes on site or off site [Yes/ No]

37.) If disposal off site, please list the disposal facility (effluent or solid waste disposal facility) if unknown, please state as UNKNOWN.

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38.) Do you experience incidences of pharmaceutical or chemical theft at your facility?
[Yes/No]

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39.) If yes, please state average quantities (kg) per day/week/month/year

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40.) Who are the end users of your pharmaceutical/chemical products? Please list only.

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41.) Are your end users aware of how to handle the product(s) as well as manage waste resulting from the product? [yes/no/not sure]

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42.) Does your institution have initiative(s) to sensitize end users on the appropriate use and disposal of your product(s)? [yes/no/not sure]

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43.) If your answer is yes on the above question, please attach copies of such initiatives used by your institution, or web link or briefly describe such initiatives.

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value of your annual export?	
7. What is the average education level of your employees?	
8. How often do you train your staff?	
9. What other industry sector(s) can the training given to your staff can be used?	

45.) Does your institution have in place a Social-Corporate Responsibility initiative
[Yes/No/Not Sure]

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46.) If you answered YES on the above, please list the target communities.

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47.) If your institution/organisation has social-corporate responsibility, please attach
copies of such initiatives or web link or briefly describe such initiatives.

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48.) What percentage of your staff are from your local community of operation?

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