

Form 2

Dioxins and Furans

**Send filled form to
UNEP Chemicals**

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| | |
|---|---|
| Country (or region) SWITZERLAND | Contact person Georg Karlaganis |
|---|---|

► IMPORTANT: See instructions before filling the form ◀

| | |
|--|--|
| SECTION 1. Have studies been undertaken to identify the major sources of dioxins/furans in your country? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
|--|--|

Comments:
Measurements and estimations of emission data, environmental, contamination, literature review

Reference:
"Dioxine und Furane- Standortbestimmung, Beurteilungsgrundlagen, Massnahmen"- SAEFL, Schriftenreihe Umwelt Nr.290

Date: 1997

SECTION 2.
POTENTIAL OR IDENTIFIED MAJOR SOURCES OF DIOXINS AND FURANS IN YOUR COUNTRY

| Sources | Quantity released per year | Relative importance Major/Minor | Alternative processes or techniques(e.g. cleaner technologies) known to you | Relative cost and effectiveness of the alternative techniques |
|---|----------------------------|---|---|---|
| Asphalt mixing installations | NA | Major <input type="checkbox"/> Minor <input type="checkbox"/> | | |
| By-products of chlorinated substances manufacture | NA | Major <input type="checkbox"/> Minor <input type="checkbox"/> | | |
| Cable incineration | No activity anymore | Major <input type="checkbox"/> Minor <input type="checkbox"/> | | |
| Chemical industry | <0,0001 (air, 1995) | Major <input type="checkbox"/> Minor <input checked="" type="checkbox"/> | | |
| Coal combustion | 0,0007 (1995) | Major <input type="checkbox"/> Minor <input checked="" type="checkbox"/> | | |

| | | | | |
|---|-------------------------------------|---|--|--|
| Contaminated pesticides | NA | Major <input type="checkbox"/> | | |
| | | Minor <input type="checkbox"/> | | |
| Forest/grass fire | <0,0001 | Major <input type="checkbox"/> | | |
| | | Minor <input checked="" type="checkbox"/> | | |
| Fuel combustion | 0,005 (1995) | Major <input type="checkbox"/> | | |
| | | Minor <input checked="" type="checkbox"/> | | |
| High temperature processes | Not relevant | Major <input type="checkbox"/> | | |
| | | Minor <input type="checkbox"/> | | |
| Wastes incineration | See "other" | Major <input type="checkbox"/> | | |
| | | Minor <input type="checkbox"/> | | |
| Industrial processes | 0,003 | Major <input type="checkbox"/> | | |
| | | Minor <input checked="" type="checkbox"/> | | |
| Ironworks | 0,001 (1995) | Major <input type="checkbox"/> | | |
| | | Minor <input checked="" type="checkbox"/> | | |
| Landfill gas incineration | NA | Major <input type="checkbox"/> | | |
| | | Minor <input type="checkbox"/> | | |
| Non-Fe metal industry oil combustion | 0,002 (1995) | Major <input type="checkbox"/> | | |
| | | Minor <input checked="" type="checkbox"/> | | |
| Other contaminated chemicals (e.g. PCBs) | NA | Major <input type="checkbox"/> | | |
| | | Minor <input type="checkbox"/> | | |
| Pesticides | NA | Major <input type="checkbox"/> | | |
| | | Minor <input type="checkbox"/> | | |
| Sintering processes | No activity | Major <input type="checkbox"/> | | |
| | | Minor <input type="checkbox"/> | | |
| Sludge incineration | <0,0001 (1995) | Major <input type="checkbox"/> | | |
| | | Minor <input checked="" type="checkbox"/> | | |
| Steel industry | 0,008 (1995) | Major <input type="checkbox"/> | | |
| | | Minor <input checked="" type="checkbox"/> | | |
| Traffic emissions | 0,0009 (1995) | Major <input type="checkbox"/> | | |
| | | Minor <input checked="" type="checkbox"/> | | |
| Transportation | | Major <input type="checkbox"/> | | |
| | | Minor <input type="checkbox"/> | | |
| Waste incineration (Hazardous) | 0,007 | Major <input type="checkbox"/> | | |
| | | Minor <input checked="" type="checkbox"/> | | |
| Waste incineration (Municipal solid) | 0,096 (1995) | Major <input checked="" type="checkbox"/> | | |
| | | Minor <input type="checkbox"/> | | |
| Waste incineration (Medical solid) | 0,01 (1995) | Major <input type="checkbox"/> | | |
| | | Minor <input checked="" type="checkbox"/> | | |
| Wood combustion | 0,0002- 0,0013 | Major <input type="checkbox"/> | | |
| | | Minor <input checked="" type="checkbox"/> | | |
| Other: open burning of municipal waste/ open burning of waste from construction (building sit)/ open fires on landfills | 0,027/ 0,013/ 0,009 (1995) | Major <input checked="" type="checkbox"/> | | |
| | | Minor <input type="checkbox"/> | | |

SECTION 3. RELEASE MONITORING

| | Monitoring type | Short description(add separate page if needed) |
|------------|---|---|
| 3.1 | Ambient air Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Measurements of deposition cf. SRU Nr.290, p.62 |

| | | |
|------|--|-------------------------------|
| 3.2 | Ground water Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| 3.3 | Surface water Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| 3.4 | Point air Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| 3.5 | Point water Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| 3.6 | Soil Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| 3.7 | Ecosystem Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| 3.8 | Human Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| 3.9 | Agricultural commodity Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| 3.10 | Food products Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | PCDDs and PCDFs in cows milk. |

Comments: PCDDs and PCDFs in sewage sludge

Data Source:

SECTION 4. REGULATORY ACTIONS TAKEN TO CONTROL THE USE OF THE POP

| | Action type to control the manufacture, importation, distribution in commerce, use or disposal | Short description (add separate page if needed) | Reference |
|-----|---|---|-----------|
| 4.1 | Public health standards or regulations <input checked="" type="checkbox"/> | According to Art.4 OAPC the local authorities can set appropriate emission limit values eg. For MSWI (municipal waste incineration) | |
| 4.2 | Occupational standards or regulations <input type="checkbox"/> | | |
| 4.3 | Environmental standards or regulations <input type="checkbox"/> | | |
| 4.4 | Guidance Document <input type="checkbox"/> | | |
| 4.5 | Voluntary programme <input type="checkbox"/> | | |
| 4.6 | Other (e.g., Governmental order) <input type="checkbox"/> | | |
| 4.7 | No action <input type="checkbox"/> | | |



POPs PROFILE INFORMATION REPORTING FORM



Comments:

The reduction of the PCDD and PCDF emissions were achieved mainly through the following regulations:

- According to the Ordinance on Air Pollution Control all municipal solid waste incinerators and hazardous waste incinerators have to be equipped with a nitrogen oxides removing system. This reduces also the emissions of PCDD and PCDF (~ 0,1 ng I-TEQ/Nm³).
- Prohibitions of precursors and contaminated industrial substances such as PCBs and PCP (ordinance on Substances).
- Cars: Emission Standards which require catalysts (catalysts must be run with unleaded petrol which is free of scavengers).

Data Source:

Ordinance on Air Pollution Control
Ordinance on Substances