

Form 2

Dioxins and Furans

**Send filled form to
UNEP Chemicals**

15, Chemin des Anémones - Case postale 356
CH - 1219 Geneva, Switzerland
Telephone: +41 22 979 91 11
Facsimile: +41 22 797 34 60
E-mail: irptc@unep.ch

<p>Country (or region) FINLAND</p>	<p>Contact person Esa Nikunen Finnish Environment Institute</p>
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IMPORTANT: See instructions before filling the form

<p>SECTION 1. Have studies been undertaken to identify the major sources of dioxins/furans in your country?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>			
<p><u>Comments:</u> Most of the release estimates are made using national/international emission factors combined with national statistics data.</p>				
<p>SECTION 2. POTENTIAL OR IDENTIFIED MAJOR SOURCES OF DIOXINS AND FURANS IN YOUR COUNTRY</p>				
<p>Sources</p>	<p>Quantity released per year</p>	<p>Relative importance Major/Minor</p>	<p>Alternative processes or techniques(e.g. cleaner technologies) known to you</p>	<p>Relative cost and effectiveness of the alternative techniques</p>
Asphalt mixing installations	0.5-1	Major <input type="checkbox"/> Minor <input checked="" type="checkbox"/>		
By-products of chlorinated substances manufacture	< 1	Major <input type="checkbox"/> Minor <input checked="" type="checkbox"/>		
Cable incineration	< 1	Major <input type="checkbox"/> Minor <input checked="" type="checkbox"/>	Mechanical removal of cable insulation	
Chemical industry	< 1	Major <input type="checkbox"/> Minor <input checked="" type="checkbox"/>		
Coal combustion	2	Major <input type="checkbox"/> Minor <input type="checkbox"/>		
Contaminated pesticides	< 1	Major <input type="checkbox"/> Minor <input checked="" type="checkbox"/>	Phasing out contaminated pesticide-products. Using alternatives	No remarkable extra costs
Forest/grass fire	< 1	Major <input type="checkbox"/> Minor <input checked="" type="checkbox"/>		
Fuel combustion	20-30	Major <input checked="" type="checkbox"/> Minor <input type="checkbox"/>		

High temperature processes	NA	Major <input type="checkbox"/> Minor <input type="checkbox"/>		
Wastes incineration	30-80	Major <input checked="" type="checkbox"/> Minor <input type="checkbox"/>	Prevention of waste landfill site fires by effective on site compressing of the wasted material	
Industrial processes	NA	Major <input type="checkbox"/> Minor <input type="checkbox"/>	Substitution of chlorine with alternative bleaching chemicals in pulp and papers industry.	
Ironworks	NA	Major <input type="checkbox"/> Minor <input type="checkbox"/>		
Landfill gas incineration	NA	Major <input type="checkbox"/> Minor <input checked="" type="checkbox"/>		
Non-Fe metal industry oil combustion	5-15	Major <input type="checkbox"/> Minor <input type="checkbox"/>		
Other contaminated chemicals (e.g. PCBs)	NA	Major <input checked="" type="checkbox"/> Minor <input type="checkbox"/>	Pentachlorophenol has been substituted with another substances in wood preservation	No remarkable extra costs, Effectiveness is good
Pesticides	very low	Major <input type="checkbox"/> Minor <input checked="" type="checkbox"/>	Bans to pesticides containing dioxins/furans as impurities	No remarkable extra costs, Effectiveness is good
Sintering processes	15-20	Major <input checked="" type="checkbox"/> Minor <input type="checkbox"/>		
Sludge incineration (WWTP sludge from pulp & paper industry)	1	Major <input type="checkbox"/> Minor <input type="checkbox"/>		
Steel industry	5-10	Major <input checked="" type="checkbox"/> Minor <input type="checkbox"/>		
Traffic emissions	1-10	Major <input checked="" type="checkbox"/> Minor <input type="checkbox"/>		
Transportation	0.5-2	Major <input type="checkbox"/> Minor <input type="checkbox"/>		
Waste incineration (Hazardous)	0.3	Major <input type="checkbox"/> Minor <input checked="" type="checkbox"/>		
Waste incineration (Municipal solid)	1-5	Major <input checked="" type="checkbox"/> Minor <input type="checkbox"/>	Landfill waste sites are preferred to wastes incineration in Finland Reducing private incineration of waste. Promoting of recycling and sorting of waste.	
Waste incineration (Medical solid)	2-5	Major <input checked="" type="checkbox"/> Minor <input type="checkbox"/>		
Wood combustion	10-20	Major <input checked="" type="checkbox"/> Minor <input type="checkbox"/>		
Other: _____ _____		Major <input 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 type="checkbox"/> No <input checked="" type="checkbox"/>	No regular monitoring

3.2	Ground water Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No regular monitoring
3.3	Surface water Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No regular monitoring
3.4	Point air Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certain industrial plants and hazardous waste and municipal waste incineration plant emissions are monitored regularly
3.5	Point water Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No regular monitoring
3.6	Soil Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Program on screening and monitoring old sawmill areas
3.7	Ecosystem Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Regular monitoring program for aquatic and terrestrial biological material
3.8	Human Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Time to time monitoring levels in human blood and tissues from people of different ages and professions
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"/>	Time to time monitoring of foodstuff, average daily intake 2 pg/ TEQ/kg /day, main source of dioxins/furans is fish.

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"/>	Recommended Tolerably Daily Intake (TDI) of 35 TEQ pg/kg body weight/week	Recommendation: The Nordic Council of Ministers
4.2	Occupational standards or regulations <input checked="" type="checkbox"/>	The workers who have been exposed to carcinogenic substances during more than 20 days are registered Occup. limits for concentrations in repaired and dismantled technical material	Ministry of labour Resolution on Carcinogens(838/93)
4.3	Environmental standards or regulations <input checked="" type="checkbox"/>	Limit-values for cleaning up of contaminated soil	
4.4	Guidance Document <input type="checkbox"/>		
4.5	Voluntary programme <input type="checkbox"/>		
4.6	Other (e.g., Governmental order) <input checked="" type="checkbox"/>	Maximum emission limits for municipal waste incineration plants	Gov. order Vnp 626/94
4.7	No action <input type="checkbox"/>		