

# Utsläpp av miljögifter från en fabrik för produktion av pesticider.

941003

Mycket kortfattad.

Utsläppet orsakades av ett bristfälligt filter. Utsläppet förefaller ha fortgått under en dryg veckas tid innan det upptäcktes. Det datum som anges är det tidigaste datum då utsläppet anses kunna ha börjat. Den utsläppta 2, 4-diklor-fenoxi-ättiksyran spreds över ett jordbruksområde på ca 30 ha, där den huvudsakliga verksamheten var grönsaksodling. Grönsaker som misstänktes vara förorenade kasserades och jordmånen behandlades.

## Inblandade ämnen och mängder

	CAS Nr.	Mängd
2, 4-diklor-fenoxi-ättiksyra	94-75-7	okänt

## Skador:

Människor:

Materiella:

Miljö/ekologi: 30 ha jordbruksland förorenades. Omfattningen av föroreningen bestämdes genom att effekter på grödan, främst grönsaker, bedömdes. Haltbestämningar av giftet kunde inte göras med säkerhet.

Infrastruktur:

Erfarenheter redovisade (Ja/Nej): Nej

## Report Profile

### Identification of Report:

country: FA ident key: 1800\_011\_01

reported under Seveso I directive as major accident reports: SHORT+FULL

### Date of Major Occurrence: Time of Major Occurrence

start: 03/10/1994 start:

finish: 13/10/1994 finish:

### Establishment:

name:

address:

industry: 2004 pesticides, pharmaceuticals, other fine chemicals

Seveso II status: not applicable: Yes art. 6 (notification): No

art. 7 (MAPP): No

art. 9 (safety report): No

### Date of Report:

short: full:

### Authority Reporting:

name:

address:

### Authority Contact:

rep\_cont\_name:

rep\_cont\_phone:

rep\_cont\_fax:

**Additional Comments:**

a) - not applicable -

b) - not applicable -

c) - not applicable -

d) - not applicable -

e) - not applicable -

## Short Report

country: FA ident key: 1800\_011\_01

**Accident Types:**

release: Yes explosion: No

water contamination: No other: No

fire: No

**description:**

30 ha of agricultural and were contaminated; large external damages

**Substance(s) Directly Involved:**

toxic: Yes explosive: No

ecotoxic: Yes other: No

flammable: No

**description:**

2,4-D - (2,4 phenoxy) - Acetic acid - (herbicide)

**Immediate Sources of Accident:**

storage: No transfer: No

process: Yes other: No

**description:**

failure of the filtering system

**Suspected Causes:**

plant or equipment: Yes environmental: No

human: Yes other: No

**description:**

ineffective control of the filtering system

**Immediate Effects:**

material loss: No

human deaths: No

human injuries: No community disruption: No

other: No

ecological harm: Yes

**national heritage loss:** No

**description:**

Pollution of 30 ha agricultural land (horticulture)

### **Emergency Measures taken:**

**on-site systems:** No **decontamination:** Yes

**external services:** Yes **restoration:** Yes

**sheltering:** No **other:** No

**evacuation:** No

**description:**

destruction of contaminated cultures and soil remediation

### **Immediate Lessons Learned:**

**prevention:** No **other:** No

**mitigation:** Yes

**description:**

no further information is given

## **A Occurrence Full Report**

**country:** FA **ident key:** 1800\_011\_01

### **1 Type of Accident**

**remarks:** Release of eco-toxic substances in the environment

### **2 Dangerous Substances**

**remarks:** 2,4-D was synthesised in the plant

### **3 Source of Accident**

**illustration:** An information sheet on the chemical properties and effects of 2,4-D is

annexed

**remarks:** The filtering system was not sufficiently air-tight (not effective

filtration system)

### **4 Meteorological Conditions**

**precipitation none: fog: rain: hail: snow:**

No No No No No

**wind speed (m/s):**

**direction (from):**

**stability (Pasquill):**

**ambient temperature (°C):**

**remarks:** - not applicable -

### **5 Causes of Major Occurrence**

**main causes**

**technical / physical** 5102 operation: component/machinery failure/malfunction

- not applicable -

- not applicable -

- not applicable -

- not applicable -

**human / organizational** 5305 organization: supervision (none, inadequate, inappropriate)

- not applicable -

- not applicable -

- not applicable -

- not applicable -

**remarks:** the filters have not been controlled

## 6 Discussion about the Occurrence

- not applicable -

**Type of Accident** country: FA ident key: 1800\_011\_01

**event:**

**major occurrence** 1101 release: gas/vapour/mist/etc release to air

**initiating event** - not applicable -

**associated event** - not applicable -

## Dangerous substances

country: FA ident key: 1800\_011\_01

### a) total establishment inventory

**CAS number:** 94-75-7 **identity:** 2, 4-D (2,4 dichlorophenoxy acetic acid)

**name from Seveso I Directive:** - not applicable -

**name from Seveso II Directive:** - not applicable -

**category from Seveso II:** very toxic

**other hazards (1):** dangerous for the environment R51/53

**other hazards (2):** - not applicable -

**maximum quantity (tonnes):** -1

**use of substance as:** normal finished product

**b) substance belongs to relevant inventory directly involved:** Yes

**actual quantity:** 1 **potential quantity:** -1

**c) substance belongs to relevant inventory indirectly involved:** No

**actual quantity:** 0 **indir\_pot\_quant:** 0

**Source of Accident - Situation** country: FA ident key: 1800\_011\_01

### situation

**industry**

**initiating event** - not applicable -

**associated event** - not applicable -

**activity/unit**

**major occurrence** 3101 process: chemical batch reaction

**initiating event** - not applicable -

**associated event** - not applicable -

**component**

**major occurrence** 4007 machinery/equipment (pump, filter, column separator, mixer, etc.)

**initiating event** - not applicable -

**associated event** - not applicable -

## **B Consequences Full Report**

**country:** FA **ident key:** 1800\_011\_01

### **1 Area concerned**

**affected**

**extent of effects installation:** Suspected

**establishment:** Suspected

**off-site; local:** Yes

**off-site; regional:** No

**off-site; transboundary:** No

**illustration of effects** No information is given

**remarks** The beginning of the pollution occurrence could not be precisely determined; how... see Appendix

Full Report B / area concerned - remarks

### **2 People**

**establishment popul. emergency personnel off-site population**

**total at risk** 0 0 0

**immediate fatalities** 0 0 0

**subsequent fatalities** 0 0 0

**hospitalizing injuries** 0 0 0

**other serious injuries** 0 0 0

**health monitoring** 0 0 0

**remarks** There have been no health effects on human beings.

### **3 Ecological Harm**

**pollution/contamination/damage of:**

- **residential area (covered by toxic cloud)** not applicable

- **common wild flora/fauna (death or elimination)** Suspected

- **rare or protected flora/fauna (death or elimination)** not applicable

- **water catchment areas and supplies for consumption or recreation** not applicable

- **land (with known potential for long term ecological harm or not applicable**

**preventing human access or activities)**

- **marine or fresh water habitat** not applicable

- **areas of high conservation value or given special protection** not applicable

remarks - not applicable -

#### **4 National Heritage Loss**

effects on:

- historical sites None - historic monuments None

- historic buildings None - art treasures None

remarks - not applicable -

#### **5 Material Loss**

establishment losses off site losses

costs (direct costs to operator) (social costs)

in ECU FFR ECU FFR

material losses 0 0 -1 -1

response, clean up, restoration 520000 3500000 -1 -1

remarks - not applicable -

#### **6 Disruption of Community Life**

establishment/plant evacuated disabled/unoccupiable destroyed

- nearby residences/hotels No No No

- nearby factories/offices/small shops No No No

- schools, hospitals, institutions No No No

- other places of public assembly No No No

interruption of utilities etc. no / yes duration

- gas No

- electricity No

- water No

- sewage treatment works No

- telecommunications No

- main roads No

- railways No

- waterways No

- air transport No

significant public concern none local level national level

- off site populations No No No

- media interest No Yes No

- political interest No No No

remarks The neighbouring vegetable cultures were declared not adequate for consumption. ... see Appendix

#### **7 Discussion of Consequences**

- not applicable -

#### **Ecological Components involved**

country: FA ident key: 1800\_011\_01

type: 6106 inland: arable land/crops/vineyards/orchards

threatened: not applicable affected: Yes

## C Response Full Report

country: FA ident key: 1800\_011\_01

### 1 Emergency Measures

**taken - on site** - not applicable - - not applicable -

- not applicable - - not applicable -

- not applicable - - not applicable -

**- off site** - not applicable - - not applicable -

- not applicable - - not applicable -

- not applicable - - not applicable -

**still - on site** - not applicable - - not applicable -

**required**

- not applicable - - not applicable -

- not applicable - - not applicable -

**- off site** - not applicable - - not applicable -

- not applicable - - not applicable -

- not applicable - - not applicable -

**continuing contamination or danger**

**-on site** not applicable

**-off site** not applicable

**remarks** - not applicable -

### 2 Seveso II Duties

**pre-accident evaluation**

**Article item not due yet not done done/submitted evaluated**

**6 notification** No No No No

**7 policy (MAPP)** No No No No

**9 safety report** No No No No

**9, 10, 11 update** No No No No

**11 internal plan** No No No No

**11 external plan** No No No No

**13 informing public** No No No No

**9, 12 siting policy** No No No No

**post-accident evaluation**

**Seveso II duty was actual were actual compared with actual**

**contingency consequences consequences, the**

addressed? addressed? predicted extent was?

**Article item**

7 **policy (MAPP)** not applicable not applicable not applicable

9 **current safety report** not applicable not applicable not applicable

11 **internal plan** not applicable not applicable not applicable

11 **external plan** not applicable not applicable not applicable

13 **informing public** not applicable not applicable not applicable

9, 12 **siting policy** not applicable not applicable not applicable

**evaluation of safety organisation**

**organisational element element existed did element relate to actual circumstances of**

**yes / no no / partly / yes adequate?**

- **written policy objectives** No

- **specified management** No

**structure**

- **specified responsibilities** No

- **specified working procedures** No

- **specified procedures for** No

**assessment/auditing of**

**management system**

- **specified procedures for** No

**review and update of**

**management policy**

- **specified general training** No

**procedures**

- **specified emergency** No

**training procedures**

**evaluation of ecological impact control**

**organisational element element existed did element relate to actual circumstances of**

**yes / no no / partly / yes adequate?**

- **ecological status review** No

**before incident**

- **potential ecological** No

**consequences assessment**

- **ecological impact review** No

**after incident**

- **ecological restoration** No

**procedures**

- **subsequent review of** No

**restoration success**

**remarks** - not applicable -

### **3 Official Action Taken**

#### **legal action**

- not applicable -

#### **other official action**

- not applicable -

### **4 Lessons Learned**

#### **measures to prevent recurrence**

Introduction of control of the... see Appendix Full Report C / lesson learned - prevent

#### **measures to mitigate consequences:**

no information is given

#### **useful references:**

no information is given

### **5 Discussion about Response**

- not applicable -

## **Appendices for the FA / 1800\_011\_01 report**

#### **Appendix Full Report B / area concerned - remarks:**

The beginning of the pollution occurrence could not be precisely determined; however, it seems to be that it could not have started before the 03/10/1994; the affected areas are closely related to meteorological conditions. Considering the "moderated" toxicity of the product and the difficulty to determine a 0 point, the polluted zones were primarily determined through the anomalies shown by vegetables.

#### **Appendix Full Report B / disruption of community life:**

The neighbouring vegetable cultures were declared not adequate for consumption. However, the continuation of vegetable farming is not in danger.

#### **Appendix Full Report C / lesson learned - prevent:**

Introduction of control of the filters