

Utsläpp av svavelsyraångor från en kemikaliefabrik.

960717 MARS 1996_09

En tank med 52 tons kapacitet skulle tömmas för undersökning. Fabrikschefen beordrade att tanken skall sköljas med vatten utan att ha undersökt om tanken var tom. Tanken innehöll en ansevärd mängd svaveltrioxid, dock högst 1576 kg. Ett moln av svavelsyra slog upp ur manluckan. Fabrikschefen fick brännskador på handen när han försökte flytta bort vattenslangen. Svavelsyramolnet spreds i omgivningen. Ett tiotal personer utanför fabriksområdet sökte läkarhjälp för irritation i ögon, slemhinnor och andningsvägar. Räddningstjänsten tillkallades.

Inblandade ämnen och mängder

	CAS Nr.	Mängd
svaveltrioxid	7446-11-9	max 1576 kg
svavelsyra		

Skador:

Människor:	Fabrikschefen fick kemiska brännskador på en hand. 10 personer i närheten sökte läkarhjälp dagarna efter för irritation i ögon, slemhinnor och andningsvägar.
Materiella:	Mindre skador på anläggningen. Produktionsstopp i 45 dagar.
Miljö/ekologi:	Inga effekter rapporterade.
Infrastruktur:	Inga.

Erfarenheter redovisade (Ja/Nej):

Kortfattat anges förebyggande åtgärder.

Report Profile

Identification of Report:

country: FA ident key: 1996_009_01

reported under Seveso I directive as major accident reports: SHORT

Date of Major Occurrence: Time of Major Occurrence

start: 1996-07-17 start: 11:25:00

finish: 1996-07-17 finish: 15:30:00

Establishment:

name:

address:

industry: - not applicable -

Organic Chemicals Manufacture

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:** 1996_009_01

Accident Types:

release: Yes **explosion:** No

water contamination: No **other:** No

fire: No

description:

Uncontrolled release of sulphuric acid mist from a vent tank on a sulphur trioxide storage system.

Substance(s) Directly Involved:

toxic: Yes **explosive:** No

ecotoxic: No **other:** No

flammable: No

description:

Sulphur trioxide (CAS No 7446-11-9). Amount lost estimated by company at 1576 kg max.

Immediate Sources of Accident:

storage: Yes **transfer:** No

process: No **other:** No

description:

52 tonnes capacity vent tank on SO3 tank farm was being cleared out for a thorough examination. Water introduced without first checking that the tank was free of SO3.

Suspected Causes:

plant or equipment: No **environmental:** No

human: Yes **other:** No

description:

Plant manager gave instruction to add water, directly from a hose, through a manlid. Had not foreseen the likely presence of polymeric SO3. Assumed only a negligible amount present because the tank was not used for storage and was ordinari... see Appendix Short Report / description of suspected causes

Immediate Effects:

material loss: Yes

human deaths: No

human injuries: Yes **community disruption:** Yes

other: No

ecological harm: No

national heritage loss: No

description:

Plant Manager sustained burns to hand whilst attempting to remove water hose. On and off-site emergency plans put into operation. 10 persons off-site reported to their local hospitals complaining of eye and respiratory irritation.

Emergency Measures taken:

on-site systems: Yes **decontamination:** Yes

external services: No **restoration:** No

sheltering: No **other:** No

evacuation: No

description:

On/off site plans activated. Fire brigade attendance amounted to 30 units and 150 officers. Decontamination of SO₃ storage building required removal of external cladding. Vent tank lagging also required removal. Plant out of action for 45 d... see Appendix Short Report / description of emergency measures taken

Immediate Lessons Learned:

prevention: Yes **other:** No

mitigation: No

description:

(i) Company, through its Plant Manager, failed to provide a safe system of work for decontamination and cleaning of the vent tank.... see Appendix Short Report / description of immediate lessons learned

Appendices for the FA / 1996_009_01 report

Appendix Short Report / description of suspected causes:

Plant manager gave instruction to add water, directly from a hose, through a manlid. Had not foreseen the likely presence of polymeric SO₃. Assumed only a negligible amount present because the tank was not used for storage and was ordinarily vented to a scrubber.

Appendix Short Report / description of emergency measures taken:

On/off site plans activated. Fire brigade attendance amounted to 30 units and 150 officers. Decontamination of SO₃ storage building required removal of external cladding. Vent tank lagging also required removal. Plant out of action for 45 days.

Appendix Short Report / description of immediate lessons learned:

- (i) Company, through its Plant Manager, failed to provide a safe system of work for decontamination and cleaning of the vent tank.
- (ii) Polymer allowed to build up on internal walls and viewing panel because vent tank temperature not maintained above 35 degrees Celsius as for SO₃ storage tanks.
- (iii) Instrumentation not provided to record internal temperature and monitor efficiency of vent tank trace heating.